

TRANSMITTAL

To: Bureau of Design and Environment
Attn: Thomas Brooks
From: Illinois Natural History Survey
Re: Mitigation Site Assessment

Route and Location

Project Title: North Chicago Site, Addendum 1
Route: IL 137 / US 41
Location: immediately south of IL 137, 312 m (1025 ft)
west of US 41
County: Lake

Survey Conducted By: Allen Plocher, Dave Ketzner, Brian Wilm, Jason Zylka
Illinois Natural History Survey
Center for Wildlife Ecology
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Date Conducted: 22, 23 August 2006

Project Summary:

The project area for the proposed wetland mitigation site was again reexamined. Species lists were compiled for each of the 44 wetland sites, and Floristic Quality Indices (FQI) determined. Lists of dominant species for the sites were refined.

Signed: _____
Dr. Allen E. Plocher
INHS/IDOT Project Coordinator

Date: _____

Signed: _____
Dr. Edward J. Heske
Director, Center for Wildlife Ecology

Date: _____

Mitigation Site Assessment

To: Thomas Brooks
From: Allen Plocher, Dave Ketzner, Brian Wilm, Jason Zylka
Date: 26 September 2006
Re: Mitigation Site Assessment, Addendum 1

IL 137/US 41
North Chicago Site
Lake County

Dates Investigated: 22, 23 August 2006

Introduction

The project area was again reexamined. Species lists were compiled for each of the 44 wetland sites, and Floristic Quality Indices (FQI) determined as described by Taft et al. (*Floristic Quality Assessment for vegetation in Illinois*, *Erigenia* 1997). Lists of dominant species for each site were refined somewhat. Acreage of each site is reported.

Summary

All of the wetland sites support hydrophytic vegetation. Inundation and saturation to the surface were observed at all sites on 15 -16 May and 30 – 31 May, which demonstrates that wetland hydrology and hydric soils are present. Therefore these sites all meet the three criteria of wetlands. All but four of the wetlands are non-isolated. Total wetland area is 11.34 ha (28 acres). Of the 44 wetlands examined, eleven had FQI's above 20, which is indicative of good natural quality. Wetlands of good quality occurred in each of the four 1/16 Sections of the site, although the southernmost 2/3 of the area is of better natural quality than the northern 1/3. One individual of the State Threatened *Veronica scutellata* was located in Wetland 34. In addition to the previously observed species (*Aster puniceus* C=7, *Carex stricta* C=5, *Galium tinctorium* C=6, *Hypoxis hirsuta* C=6, *Iris shrevei* C=5, *Lathyrus palustris* C=7, *Liatris pycnostachya* C=6, *Liatris spicata* C=7, *Onoclea sensibilis* C=5, *Pedicularis canadensis* C=7, *Proserpinaca palustris* C=5, *Pycnanthemum virginianum* C=5, *Ranunculus flabellaris* C=6, *Sium suave* C=5, *Zizia aurea* C=6), the following high quality, conservative plant species were observed in wetlands:

Allium cernuum C=7, *Carex lacustris* C=6, *Carex trichocarpa* C=6, *Epilobium leptophyllum* C=9, *Galium trifidum* C=10, *Glyceria septentrionalis* C=6, *Juncus nodosus* C=6, *Lysimachia quadriflora* C=8, *Oxypolis rigidior* C=7, *Phlox galberrima* C=6, *Rubus strigosus* C=6, *Salix eriocephala* C=8, *Salix glaucophylloides* C=8, *Salix petiolaris* C=6, *Scirpus acutus* C=6, *Scutellaria galericulata* C=6, *Solidago ridellii* C=7, *Spiraea alba* C=6, *Veronica scutellata* C=9.

North Chicago Mitigation Site

Site 1

Community Type: marsh

Dominant Species: *Typha latifolia*, *Phalaris arundinacea*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: southwest corner of site, Size (partial) – 0.138 ha (0.34 acre)

FQI: 10.6, Natural Quality - fair

Isolated status: non-isolated

Site 2

Community Type: wet shrubland

Dominant Species: *Fraxinus pennsylvanica*, *Rhamnus cathartica*, *Carex stricta*,
Phalaris arundinacea

Percent hydrophytic species – 75%

Location: southwest corner of site, adjacent to Site 1, Size – 0.065 ha (0.16 acre)

FQI: 14.2, Natural Quality - fair

Isolated status: non-isolated

Site 3

Community Type: marsh

Dominant Species: *Typha latifolia*, *Phalaris arundinacea*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: southwest corner of site, adjacent to Site 2, Size – 0.312 ha (0.77 acre)

FQI: 9.7, Natural Quality - low

Isolated status: non-isolated

Site 4

Community Type: wet shrubland

Dominant Species: *Fraxinus pennsylvanica*, *Carex stricta*, *Carex stipata*,
Phalaris arundinacea

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 3, Size – 0.028 ha (0.07 acre)

FQI: 16.9, Natural Quality - fair

Isolated status: non-isolated

Site 5

Community Type: marsh

Dominant Species: *Typha angustifolia*, *Phalaris arundinacea*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 4, Size – 0.198 ha (0.49 acre)

FQI: 16.6, Natural Quality - fair

Isolated status: non-isolated

Site 6

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 5, Size – 0.806 ha (1.99 acres)

FQI: 19.4, Natural Quality – fairly high

Isolated status: non-isolated

Site 7

Community Type: marsh

Dominant Species: *Typha latifolia*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: southeast corner of site, adjacent to Site 6, Size (partial) – 0.073 ha (0.18 acre)

FQI: 18.2, Natural Quality - fair

Isolated status: non-isolated

Site 8

Community Type: sedge meadow

Dominant Species: *Carex stricta*, *Typha angustifolia*

Percent hydrophytic species – 100%

Location: southeast portion of site, north of Site 5, Size – 0.308 ha (0.76 acre)

FQI: 20.8, Natural Quality - high

Isolated status: non-isolated

Site 9

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: southeast portion of site, adjacent to Site 8, Size – 0.053 ha (0.13 acre)

FQI: 19.1, Natural Quality – fairly high

Isolated status: non-isolated

Site 10

Community Type: wet shrubland

Dominant Species: *Cornus racemosa*, *Carex stricta*

Percent hydrophytic species – 100%

Location: southeast portion of site, adjacent to Site 9, Size – 0.020 ha (0.049 acre)

FQI: 14.3, Natural Quality – fair

Isolated status: non-isolated

Site 11

Community Type: forested wetland

Dominant Species: *Populus deltoides*, *Carex stricta*

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 10, Size – 0.024 ha (0.06 acre)

FQI: 10.6, Natural Quality – fair

Isolated status: non-isolated

Site 12

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 13, Size – 0.162 ha (0.40 acre)

FQI: 19.8, Natural Quality – fairly high

Isolated status: non-isolated

Site 13

Community Type: wet shrubland

Dominant Species: *Cornus obliqua*, *Carex stricta*

Percent hydrophytic species – 100%

Location: southern portion of site, adjacent to Site 14, Size – 0.077 ha (0.19 acre)

FQI: 14.1, Natural Quality – fair

Isolated status: non-isolated

Site 14

Community Type: sedge meadow

Dominant Species: *Salix humilis*, *Carex stricta*, *Calamagrostis canadensis*

Percent hydrophytic species – 67%

Location: southeast portion of site, north of Site 7, Size (partial) – 0.20 ha (0.49 acre)

FQI: 22.9, Natural Quality – high

Isolated status: non-isolated

Site 15

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: southeast portion of site, north of Site 12, Size – 0.202 ha (0.50 acre)

FQI: 20.1, Natural Quality – high

Isolated status: non-isolated

Site 16

Community Type: marsh

Dominant Species: *Scirpus validus*, *Iris shrevei*, *Typha latifolia*, *Carex stricta*

Percent hydrophytic species – 100%

Location: eastern border of site, northeast of Site 15, Size (partial) – 0.049 ha (0.12 acre)

FQI: 20.2, Natural Quality – high

Isolated status: non-isolated

Site 17

Community Type: marsh

Dominant Species: *Typha latifolia*, *Typha angustifolia*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: eastern border of site, north of Site 16, Size (partial) – 0.20 ha (0.49 acre)

FQI: 13.4, Natural Quality – fair

Isolated status: non-isolated

Site 18

Community Type: degraded sedge meadow

Dominant Species: *Carex stricta*, *Typha angustifolia*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: eastern portion of site, adjacent to Site 17, Size – 0.275 ha (0.68 acre)

FQI: 25.0, Natural Quality – high

Isolated status: non-isolated

Site 19

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: south-central portion of site, adjacent to Site 18, Size – 0.085 ha (0.21 acre)

FQI: 22.1, Natural Quality – high

Isolated status: non-isolated

Site 20

Community Type: degraded sedge meadow

Dominant Species: *Typha angustifolia*, *Carex stricta*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: south-central portion of site, adjacent to Site 19, Size – 0.672 ha (1.66 acres)

FQI: 18.8, Natural Quality – fair

Isolated status: non-isolated

Site 21

Community Type: marsh

Dominant Species: *Typha angustifolia*, *Lythrum salicaria*, *Typha latifolia*

Percent hydrophytic species – 100%

Location: southwest portion of site, adjacent to Site 20, Size – 0.469 ha (1.16 acres)

FQI: 14.7, Natural Quality – fair

Isolated status: non-isolated

Site 22

Community Type: marsh

Dominant Species: *Typha angustifolia*, *Typha latifolia*

Percent hydrophytic species – 100%

Location: south-central portion of site, adjacent to Site 20, Size – 0.291 ha (0.72 acre)

FQI: 17.3, Natural Quality – fair

Isolated status: non-isolated

Site 23

Community Type: marsh

Dominant Species: *Typha latifolia*, *Typha angustifolia*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: central portion of site, adjacent to Site 22, Size – 2.121 ha (5.24 acres)

FQI: 20.7, Natural Quality – high

Isolated status: non-isolated

Site 24

Community Type: sedge meadow

Dominant Species: *Carex stricta*, *Spartina pectinata*, *Eleocharis erythropoda*

Percent hydrophytic species – 100%

Location: central portion of site, adjacent to Site 23, Size – 0.057 ha (0.14 acre)

FQI: 20.8, Natural Quality – high

Isolated status: non-isolated

Site 25

Community Type: marsh

Dominant Species: *Typha latifolia*, *Typha angustifolia*

Percent hydrophytic species – 100%

Location: eastern portion of site, adjacent to Site 23, Size – 0.547 ha (1.35 acres)

FQI: 21.3, Natural Quality – high

Isolated status: non-isolated

Site 26

Community Type: forested wetland

Dominant Species: *Populus deltoides*, *Cornus racemosa*, *Sium suave*, *Carex stricta*

Percent hydrophytic species – 100%

Location: eastern portion of site, north of Site 23, Size – 0.121 ha (0.30 acre)

FQI: 16.0, Natural Quality – fair

Isolated status: isolated

Site 27

Community Type: wet meadow/wet shrubland

Dominant Species: *Fraxinus pennsylvanica*, *Cornus racemosa*, *Phalaris arundinacea*,
Lythrum salicaria, *Scirpus pendulus*, *Solidago canadensis*

Percent hydrophytic species – 83%

Location: central portion of site, north of Site 26, Size – 0.231 ha (0.57 acre)

FQI: 12.2, Natural Quality – fair

Isolated status: isolated

Comment: This very disturbed area is a truck-wallow formed by off-road recreational four wheel drive use.

Site 28

Community Type: forested wetland

Dominant Species: *Populus deltoides*, *Salix nigra*, *Cornus obliqua*,
Phalaris arundinacea, *Carex stricta*

Percent hydrophytic species – 100%

Location: eastern border of site, northeast of Site 27, Size (partial) – 0.158 ha (0.39 acre)

FQI: 13.6, Natural Quality – fair

Isolated status: non-isolated

Site 29

Community Type: wet shrubland

Dominant Species: *Rhamnus cathartica*, *Cornus obliqua*, *Carex stricta*

Lythrum salicaria

Percent hydrophytic species – 75%

Location: northeastern portion of site, adjacent to Site 28, Size – 0.025 ha (0.061 acre)

FQI: 14.7, Natural Quality – fair

Isolated status: non-isolated

Site 30

Community Type: forested wetland

Dominant Species: *Populus deltoides*, *Carex stricta*

Percent hydrophytic species – 100%

Location: northeastern portion of site, adjacent to Site 29, Size – 0.134 ha (0.33 acre)

FQI: 14.7, Natural Quality – fair

Isolated status: non-isolated

Site 31

Community Type: sedge meadow

Dominant Species: *Carex stricta*

Percent hydrophytic species – 100%

Location: central portion of site, adjacent to Site 30, Size – 0.194 ha (0.48 acre)

FQI: 19.1, Natural Quality – fairly high

Isolated status: non-isolated

Site 32

Community Type: marsh

Dominant Species: *Typha angustifolia*

Percent hydrophytic species – 100%

Location: northeastern portion of site, north of Site 30, Size – 0.065 ha (0.16 acre)

FQI: 14.7, Natural Quality – fair

Isolated status: non-isolated

Site 33

Community Type: marsh

Dominant Species: *Phragmites australis*

Percent hydrophytic species – 100%

Location: northeastern portion of site, west of Site 32, Size – 0.061 ha (0.15 acre)

FQI: 10.8, Natural Quality – fair

Isolated status: non-isolated

Site 34

Community Type: wet shrubland

Dominant Species: *Salix exigua*, *Phalaris arundinacea*, *Typha angustifolia*

Percent hydrophytic species – 100%

Location: northeastern portion of site, adjacent to Site 33, Size – 0.352 ha (0.87 acre)

FQI: 20.3, Natural Quality – high, *Veronica scutellata* (State Threatened)

Isolated status: non-isolated

Site 35

Community Type: marsh

Dominant Species: *Typha angustifolia*, *Phalaris arundinacea*

Percent hydrophytic species – 100%

Location: northeastern portion of site, adjacent to Site 34, Size – 0.235 ha (0.58 acre)

FQI: 15.1, Natural Quality – fair

Isolated status: non-isolated

Site 36

Community Type: sedge meadow

Dominant Species: *Carex stricta*, *Solidago gigantea*, *Helianthus grosseserratus*

Percent hydrophytic species – 100%

Location: northwestern portion of site, northwest of Site 31, Size – 0.231 ha (0.57 acre)

FQI: 20.7, Natural Quality – high

Isolated status: non-isolated

Site 37

Community Type: wet meadow/wet shrubland

Dominant Species: *Cornus racemosa*, *Salix exigua*, *Phalaris arundinacea*,
Lythrum salicaria

Percent hydrophytic species – 100%

Location: north-central portion of site, east of Site 36, Size – 0.089 ha (0.22 acre)

FQI: 12.9, Natural Quality – fair

Isolated status: non-isolated

Comment: This very disturbed area is a truck-wallow formed by off-road recreational four wheel drive use.

Site 38

Community Type: marsh

Dominant Species: *Typha angustifolia*

Percent hydrophytic species – 100%

Location: northeastern portion of site, adjacent to Site 37, Size – 1.085 ha (2.68 acres)

FQI: 19.8, Natural Quality – fairly high

Isolated status: non-isolated

Site 39

Community Type: wet meadow

Dominant Species: *Phalaris arundinacea*, *Lythrum salicaria*

Percent hydrophytic species – 100%

Location: northeastern portion of site, north of Site 37, Size – 0.101 ha (0.25 acre)

FQI: 6.3, Natural Quality – low

Isolated status: non-isolated

Comment: This very disturbed area is a truck-wallow formed by off-road recreational four wheel drive use.

Site 40

Community Type: wet meadow

Dominant Species: *Carex* sp., *Phalaris arundinacea*

Percent hydrophytic species – 100%

Location: northeastern portion of site, north of Site 38, Size – 0.069 ha (0.17 acre)

FQI: 8.8, Natural Quality – low

Isolated status: non-isolated

Site 41

Community Type: wet shrubland

Dominant Species: *Cornus racemosa*, *Salix exigua*, *Carex stricta*

Percent hydrophytic species – 100%

Location: northeast border of site, north of Site 40, Size – 0.089 ha (0.22 acre)

FQI: 15.2, Natural Quality – fair

Isolated status: non-isolated

Site 42

Community Type: wet meadow

Dominant Species: *Carex stricta*, *Apocynum cannabinum*, *Solidago gigantea*,
Dipsacus laciniatus

Percent hydrophytic species – 75%

Location: northwest border of site, north of Site 36, Size – 0.040 ha (0.10 acre)

FQI: 11.8, Natural Quality – fair

Isolated status: isolated

Comment: This somewhat disturbed area is a low spot in a road/trail formed by off-road recreational four wheel drive use.

Site 43

Community Type: sedge meadow

Dominant Species: *Carex stricta*, *Galium trifidum*, *Helianthus grosseserratus*

Percent hydrophytic species – 100%

Location: northwest portion of site, north of Site 42, Size – 0.089 ha (0.22 acre)

FQI: 18.1, Natural Quality – fair

Isolated status: isolated

Comment: The edge areas of this site are dominated by *Cornus racemosa*/*Carex stricta*

Site 44

Community Type: marsh

Dominant Species: *Typha angustifolia*, *Phalaris arundinacea*

Percent hydrophytic species – 100%

Location: north border of site, northeast of Site 43, Size – 0.344 ha (0.85 acre)

FQI: 11.0, Natural Quality – fair

Isolated status: non-isolated

SPECIES LIST – Site 1 (dominants –*Typha latifolia*, *Phalaris arundinacea*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Salix glaucophylloides glaucophylla</i>	blue-leaf willow	tree, sapling, shrub	FACW	8
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4

= Coefficient of Conservatism (Taft et al. 1997)

$$mCv = \sum C/N = 4.0$$

* Non-native species

$$FQI = \sum C/\sqrt{N} = 10.6$$

Quality = fair

**SPECIES LIST – Site 2 (dominants –*Fraxinus pennsylvanica*, *Rhamnus cathartica*,
Phalaris arundinacea, *Carex stricta*)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrimonia gryposepala</i>	tall agrimony	herb	FACU+	2
<i>Aster lateriflorus</i>	side-flowered aster	herb	FACW-	2
<i>Barbarea vulgaris</i>	winter cress	herb	FAC	*
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Circaea lutetiana</i>	enchanter's nightshade	herb	FACU	2
<i>Daucus carota</i>	Queen-Anne's-lace	herb	UPL	*
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Fraxinus pennsylvanica</i>	green ash	sapl, seedl	FACW	2
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Prunella vulgaris elongata</i>	self-heal	herb	FAC	1
<i>Rhamnus cathartica</i>	common buckthorn	sapl, shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl, shrub	FAC+	*
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Salix amygdaloides</i>	peach-leaved willow	shrub	FACW	4
<i>Salix exigua</i>	sandbar willow	sapl, shrub	OBL	1
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Symphoricarpos orbiculatus</i>	coralberry	shrub	FACU	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Viburnum opulus</i>	European high-bush cranberry	sapl, shrub	FAC	*
<i>Vitis riparia</i>	riverbank grape	woody vine, herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.5$$

$$FQI = \sum C/\sqrt{N} = 14.2$$

Quality = fair

SPECIES LIST – Site 3 (dominants –*Typha latifolia*, *Phalaris arundinacea*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Barbarea vulgaris</i>	winter cress	herb	FAC	*
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Fraxinus pennsylvanica</i>	green ash	tree, sapling, shrub	FACW	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum hydropiper</i>	common smartweed	herb	OBL	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Rhamnus cathartica</i>	common buckthorn	sapl, shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl, shrub	FAC+	*
<i>Rorippa sessiliflora</i>	sessile-flowered cress	herb	OBL	3
<i>Salix exigua</i>	sandbar willow	sapl, shrub	OBL	1
<i>Sambucus canadensis</i>	common elder	shrub, herb	FACW-	2
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.7$$

$$FQI = \sum C/\sqrt{N} = 9.7$$

Quality = low

**SPECIES LIST – Site 4 (dominants –*Fraxinus pennsylvanica*, *Carex stricta*, *Carex stipata*,
Phalaris arundinacea)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Allium cernuum</i>	nodding wild onion	herb	UPL	7
<i>Aster lateriflorus</i>	side-flowered aster	herb	FACW-	2
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex stipata</i>	prickly sedge	herb	OBL	2
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Fraxinus pennsylvanica</i>	green ash	tree, sapling, shrub	FACW	2
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	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>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Smilax</i> sp.	greenbrier	herb	----	--
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Symphoricarpos orbiculatus</i>	buckbrush	shrub	FACU	1
<i>Thalictrum revolutum</i>	waxy meadow rue	herb	FAC	5
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Viburnum opulus</i>	European high-bush cranberry	shrub, sapl	FAC	*

= Coefficient of Conservatism (Taft et al. 1997)

$$mCv = \sum C/N = 3.1$$

* Non-native species

$$FQI = \sum C/\sqrt{N} = 16.9$$

Quality = fair

SPECIES LIST – Site 5 (dominants - *Typha angustifolia*, *Phalaris arundinacea*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Juncus torreyi</i>	Torrey rush	herb	FACW	3
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Rosa setigera</i>	Illinois rose	shrub	FACU+	5
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.5$$

$$FQI = \sum C/\sqrt{N} = 16.6$$

Quality = fair

SPECIES LIST – Site 6 (dominants –*Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Lycopus americanus</i>	common water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Salix amygdaloides</i>	peach-leaved willow	herb	FACW	4
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Salix fragilis</i>	brittle willow	shrub	FAC+	*
<i>Salix petiolaris</i>	meadow willow	shrub	OBL	6
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vernonia fasciculata</i>	ironweed	herb	FACW	5

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.5$$

$$FQI = \sum C/\sqrt{N} = 19.4$$

Quality = fairly high

SPECIES LIST – Site 7 (dominants –*Typha latifolia*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex hyalinolepis</i>	sedge	herb	OBL	4
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Eupatorium perfoliatum</i>	common boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Fraxinus pennsylvanica</i>	green ash	tree, sapling, shrub	FACW	2
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lonicera tatarica</i>	Tartarian honeysuckle	shrub	FACU	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Ranunculus flabellaris</i>	yellow water buttercup	herb	OBL	6
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Salix amygdaloides</i>	peach-leaved willow	herb	FACW	4
<i>Scutellaria galericulata</i>	marsh skullcap	herb	OBL	6
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.6$$

$$FQI = \sum C/\sqrt{N} = 18.2$$

Quality = fair

SPECIES LIST – Site 8 (dominants –*Carex stricta*, *Typha angustifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Mimulus ringens</i>	monkey flower	herb	OBL	5
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Oxypolis rigidior</i>	cowbane	herb	OBL	7
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Populus deltoides</i>	eastern cottonwood	shrub, herb	FAC+	2
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Salix nigra</i>	black willow	shrub	OBL	3
<i>Scirpus fluviatilis</i>	river bulrush	herb	OBL	3
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Spiraea alba</i>	meadow-sweet	shrub	FACW+	6
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena stricta</i>	hoary vervain	herb	UPL	2
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Vitis riparia</i>	riverbank grape	vine, herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.5$$

$$FQI = \sum C/\sqrt{N} = 20.8$$

Quality = high

SPECIES LIST – Site 9 (dominants –*Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer negundo</i>	box elder	shrub	FACW-	1
<i>Allium cernuum</i>	nodding wild onion	herb	UPL	7
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Oxypolis rigidior</i>	cowbane	herb	OBL	7
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.6$$

$$FQI = \sum C/\sqrt{N} = 19.1$$

Quality = fairly high

SPECIES LIST – Site 10 (dominants – *Cornus racemosa*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer ginnala</i>	Amur maple	tree	UPL	*
<i>Allium cernuum</i>	nodding wild onion	herb	UPL	7
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus racemosa</i>	gray dogwood	shrub	FACW-	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Toxicodendron radicans</i>	poison ivy	herb	FAC+	1
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.2$$

$$FQI = \sum C/\sqrt{N} = 14.3$$

Quality = fair

SPECIES LIST – Site 11 (dominants – *Populus deltoides*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Ranunculus flabellaris</i>	yellow water buttercup	herb	OBL	6
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub, herb	FAC+	*
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.8$$

$$FQI = \sum C/\sqrt{N} = 10.6$$

Quality = fair

SPECIES LIST – Site 12 (dominants – *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey rush	herb	FACW	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Phlox glaberrima interior</i>	smooth phlox	herb	FACW	6
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Salix humilis</i>	prairie willow	shrub	FACU	5
<i>Scutellaria galericulata</i>	marsh skullcap	herb	OBL	6
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spiraea alba</i>	meadow-sweet	shrub	FACW+	6
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 4.0$$

$$FQI = \sum C/\sqrt{N} = 19.8$$

Quality = fairly high

SPECIES LIST – Site 13 (dominants – *Cornus obliqua*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster novae-angliae</i>	New England aster	herb	FACW	4
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Daucus carota</i>	Queen-Anne's-lace	herb	FACU-	*
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Oxypolis rigidior</i>	cowbane	herb	OBL	7
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Rhamnus cathartica</i>	common buckthorn	sapl, shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Salix fragilis</i>	crack willow	shrub	FAC+	*
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Viburnum opulus</i>	European high-bush cranberry	shrub	FAC	*
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.4$$

$$FQI = \sum C/\sqrt{N} = 14.1$$

Quality = fair

SPECIES LIST – Site 14 (dominants –*Salix humilis*, *Carex stricta*, *Calamagrostis canadensis*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Ludwigia palustris americana</i>	marsh purslane	herb	OBL	4
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lysimachia quadriflora</i>	narrow-leaved loosestrife	herb	OBL	8
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Oxypolis rigidior</i>	cowbane	herb	OBL	7
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Salix fragilis</i>	crack willow	shrub	FAC+	*
<i>Salix humilis</i>	prairie willow	shrub	FACU	5
<i>Scutellaria galericulata</i>	marsh skullcap	herb	OBL	6
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Spiraea alba</i>	meadow-sweet	shrub	FACW+	6
<i>Thalictrum revolutum</i>	waxy meadow rue	herb	FAC	5
<i>Typha latifolia</i>	cattail	herb	OBL	1

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 4.4$$

$$FQI = \sum C/\sqrt{N} = 22.9$$

Quality = high

SPECIES LIST – Site 15 (dominants – *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer negundo</i>	box elder	shrub	FACW-	1
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Erechtites hieracifolia</i>	fire weed	herb	FACU	2
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Lonicera tatarica</i>	Tartarian honeysuckle	shrub	FACU	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus tremuloides</i>	quaking aspen	tree	FAC	3
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub, herb	FAC+	*
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Salix fragilis</i>	crack willow	shrub	FAC+	*
<i>Salix humilis</i>	prairie willow	shrub	FACU	5
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Spiraea alba</i>	meadow-sweet	shrub	FACW+	6
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.4$$

$$FQI = \sum C/\sqrt{N} = 20.1$$

Quality = high

SPECIES LIST – Site 16 (dominants – *Scirpus validus*, *Iris shrevei*, *Typha latifolia*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex lacustris</i>	lake sedge	herb	OBL	6
<i>Carex</i> sp.	sedge	herb	----	--
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lemna minor</i>	duckweed	herb	OBL	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum hydropiperoides</i>	mild water pepper	herb	OBL	4
<i>Pycnanthemum virginianum</i>	common mountain mint	herb	FACW+	5
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Scirpus atrovirens</i>	dark green rush	herb	OBL	4
<i>Scirpus validus</i>	great bulrush	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 4.1$$

$$FQI = \sum C/\sqrt{N} = 20.2$$

Quality = high

SPECIES LIST – Site 17 (dominants - *Typha latifolia*, *Typha angustifolia*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer negundo</i>	box elder	tree	FACW-	1
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Boehmeria cylindrica</i>	false nettle	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Rhamnus cathartica</i>	common buckthorn	sapl, shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Sambucus canadensis</i>	elderberry	shrub, herb	FACW-	2
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.2$$

$$FQI = \sum C/\sqrt{N} = 13.4$$

Quality = fair

SPECIES LIST – Site 18 (dominants – *Carex stricta*, *Typha angustifolia*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Allium cernuum</i>	nodding wild onion	herb	UPL	7
<i>Andropogon gerardii</i>	big bluestem	herb	FAC-	5
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Carex trichocarpa</i>	sedge	herb	OBL	6
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley rush	herb	FAC	4

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

Continued on following page

SPECIES LIST – Site 18 (continued)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Juncus nodosus</i>	jointed rush	herb	OBL	6
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Oxypolis rigidior</i>	cowbane	herb	OBL	7
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub, herb	FAC+	*
<i>Rosa blanda</i>	meadow rose	shrub	FACU	4
<i>Scirpus atrovirens</i>	dark green rush	herb	OBL	4
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Solidago riddellii</i>	Riddell's goldenrod	herb	OBL	7
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Vitis riparia</i>	riverbank grape	vine, herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.8$$

$$FQI = \sum C/\sqrt{N} = 25.0$$

Quality = high

SPECIES LIST – Site 19 (dominants – *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Achillea millefolium</i>	common milfoil	herb	FACU	*
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Apocynum sibiricum</i>	Indian hemp	herb	FAC+	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Ranunculus flabellaris</i>	yellow water buttercup	herb	OBL	6
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub, herb	FAC+	*
<i>Salix amygdaloides</i>	peach-leaved willow	tree	FACW	4
<i>Scirpus atrovirens</i>	dark green rush	herb	OBL	4
<i>Scutellaria lateriflora</i>	mad-dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago riddellii</i>	Riddell's goldenrod	herb	OBL	7
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

$$mCv = \sum C/N = 3.9$$

* Non-native species

$$FQI = \sum C/\sqrt{N} = 22.1$$

Quality = high

SPECIES LIST – Site 20 (dominants –*Typha angustifolia*, *Carex stricta*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Alnus glutinosa</i>	black alder	sapling, shrub	FACW-	*
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley rush	herb	FAC	4
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lonicera tatarica</i>	Tartarian honeysuckle	shrub	FACU	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	eastern cottonwood	tree	FAC+	2
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Scirpus atrovirens</i>	dark green rush	herb	OBL	4
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.9$$

$$FQI = \sum C/\sqrt{N} = 18.8$$

Quality = fair

SPECIES LIST – Site 21 (dominants – *Typha angustifolia*, *Lythrum salicaria*, *Typha latifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Aster praealtus</i>	willow-leaved aster	herb	FACW	4
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<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>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Geum canadense</i>	white avens	herb	FAC	2
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	shrub, herb	FAC+	*
<i>Sambucus canadensis</i>	elderberry	shrub, herb	FACW-	2
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 46/20 = 2.9$$

$$FQI = \sum C/\sqrt{N} = 46/\sqrt{20} = 14.7$$

Quality = fair

SPECIES LIST – Site 22 (dominants – *Typha latifolia*, *Typha angustifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Alnus glutinosa</i>	black alder	shrub	FACW-	*
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calamagrostis canadensis</i>	bluejoint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Fraxinus pennsylvanica</i>	green ash	sapling	FACW	2
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Ranunculus flabellaris</i>	yellow water buttercup	herb	OBL	6
<i>Rhamnus frangula</i>	glossy buckthorn	shrub	FAC+	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha angustifolia</i>	narrowleaf cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Valeriana officinalis</i>	garden heliotrope	herb	FACW+	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

$$mCv = \sum C/N = 3.6$$

* Non-native species

$$FQI = \sum C/\sqrt{N} = 17.3$$

Quality = fair

SPECIES LIST – Site 23 (dominants – *Typha angustifolia*, *Typha latifolia*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Alisma plantago-aquatica</i>	water-plantain	herb	OBL	2
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster lateriflorus</i>	side-flowered aster	herb	FACW-	2
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Boehmeria cylindrica</i>	false nettle	herb	OBL	3
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex</i> sp.	sedge	herb	----	--
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cirsium vulgare</i>	bull thistle	herb	FACU-	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	gray dogwood	shrub	FACW-	2
<i>Cyperus esculentus</i>	chufa	herb	FACW	0
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Equisetum arvense</i>	common horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	spotted Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Galium triflorum</i>	sweet-scented bedstraw	herb	FACU+	4
<i>Glechoma hederacea</i>	ground ivy	herb	FACU	*
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Impatiens capensis</i>	jewelweed	herb	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley rush	herb	FAC	4
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lemna minor</i>	duckweed	herb	OBL	3
<i>Ludwigia palustris americana</i>	marsh purslane	herb	OBL	4
<i>Lycopus americanus</i>	water horehound	herb	OBL	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

Continued on following page

SPECIES LIST – Site 23 (Continued)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Lycopus virginicus</i>	bugle weed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis villosa</i>	field mint	herb	FACW	4
<i>Myosoton aquaticum</i>	giant chickweed	herb	FAC+	*
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phragmites australis</i>	common reed	herb	FACW+	1
<i>Pilea pumila</i>	Canada clearweed	herb	FACW	3
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum persicaria</i>	spotted lady's thumb	herb	FACW	*
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Polygonum lapathifolium</i>	curttop lady's thumb	herb	FACW+	0
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Populus tremuloides</i>	quaking aspen	tree	FAC	3
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	shrub, herb	FACU	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Sagittaria latifolia</i>	arrowhead	herb	OBL	4
<i>Salix alba vitellina</i>	weeping willow	tree	FACW+	*
<i>Salix amygdaloides</i>	peach-leaved willow	tree	FACW	4
<i>Salix discolor</i>	pussy willow	shrub	FACW	4
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Sambucus canadensis</i>	elderberry	shrub, herb	FACW-	2
<i>Scirpus validus</i>	great bulrush	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow-leaved cattail	herb	OBL	*
<i>Typha latifolia</i>	cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Viburnum opulus</i>	European high-bush cranberry	shrub	FAC	*
<i>Vitis riparia</i>	riverbank grape	vine, herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 35/12 = 2.8$$

$$FQI = \sum C/\sqrt{N} = 35/\sqrt{12} = 20.9$$

Quality = high

SPECIES LIST – Site 24 (dominants – *Carex stricta*, *Spartina pectinata*, *Eleocharis erythropoda*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Achillea millifolium</i>	yarrow	herb	FACU	*
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster novae angliae</i>	New England aster	herb	FACW	4
<i>Aster prealtus</i>	willow aster	herb	FACW	4
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Glyceria septentriolalis</i>	floating manna grass	herb	OBL	6
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lemna minor</i>	duckweed	herb	OBL	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugleweed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Monarda fistulosa</i>	bergamot	herb	FACU	4
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Ranunculus sceleratus</i>	cursed crowfoot	herb	OBL	3
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rhus glabra</i>	smooth sumac	sapl	UPL	1
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Rubus strigosus</i>	red raspberry	shrub	FACW-	6
<i>Scirpus validus</i>	great bulrush	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.5$$

$$FQI = \sum C/\sqrt{N} = 20.8$$

Quality = high

SPECIES LIST – Site 25 (dominants –*Typha angustifolia*, *Typha latifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Agrimonia gryposepala</i>	tall agrimony	herb	FACU+	2
<i>Alisma plantago aquatica</i>	water plantain	herb	OBL	2
<i>Allium cernuum</i>	nodding onion	herb	UPL	7
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Equisetum arvense</i>	horsetail	herb	FAC	0
<i>Erechtites hieracifolia</i>	fireweed	herb	FACU	2
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fraxinus pennsylvanica</i>	green ash	shrub	FACW	2
<i>Galium triflorum</i>	sweet scented bedstraw	herb	FACU+	4
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugleweed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

Continued on following page

SPECIES LIST – Site 25 (Continued)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Pilea pumila</i>	clearweed	herb	FACW	3
<i>Polygonum hydropiperoides</i>	water pepper	herb	OBL	4
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Salix discolor</i>	pussy willow	sapl	FACW	4
<i>Sambucus canadensis</i>	elderberry	shrub	FACW-	2
<i>Scirpus validus</i>	great bulrush	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Sonchus arvensis</i>	sow thistle	herb	FAC-	*
<i>Spatina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Tradescantia ohioensis</i>	Ohio spiderwort	herb	FACU+	3
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vernonia fasciculata</i>	ironweed	herb	FACW	5
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.2$$

$$FQI = \sum C/\sqrt{N} = 21.3$$

Quality = high

**SPECIES LIST – Site 26 (dominants – *Populus deltoides*, *Cornus racemosa*, *Sium suave*,
Carex stricta)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Fraxinus pennsylvanica</i>	green ash	tree	FACW	2
<i>Glyceria septentrionalis</i>	floating manna grass	herb	OBL	6
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Ludwigia alternifolia</i>	alternate leaf seedbox	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Setaria faberi</i>	giant foxtail	herb	FACU+	*
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 25/11 = 3.2$$

$$FQI = \sum C/\sqrt{N} = 25/\sqrt{11} = 16.0$$

Quality = fair

**SPECIES LIST – Site 27 (dominants - *Fraxinus pennsylvanica*, *Cornus racemosa*,
Phalaris arundinacea, *Lythrum salicaria*, *Scirpus pendulus*, *Solidago canadensis*)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Achillea millifolium</i>	yarrow	herb	FACU	*
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Apocynum sibiricum</i>	dogbane	herb	FAC+	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Centaurea pulchellum</i>	centaury	herb	FACU-	*
<i>Chaemesyce humistrata</i>	milk spurge	herb	FACW	1
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eragrostis frankii</i>	sandbar lovegrass	herb	FACW	2
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Fraxinus pennsylvanica</i>	green ash	sapl, seedl	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Hypericum perforatum</i>	St. John's wort	herb	UPL	*
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Leucanthemum vulgare</i>	common tansy	herb	UPL	*
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Mentha arvensis</i>	wild mint	herb	FACW	4
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phleum pratense</i>	Timothy	herb	FACU	*
<i>Plantago rugellii</i>	Rugel's plantain	herb	FAC	0
<i>Prunella vulgaris</i>	self heal	herb	FAC	1
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Salix fragilis</i>	crack willow	sapl	FAC+	*
<i>Scirpus atrovirens</i>	dark green bulrush	herb	OBL	4
<i>Scirpus pendulus</i>	red bulrush	herb	OBL	3
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago rigida</i>	stiff goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 57/21 = 2.2$$

$$FQI = \sum C/\sqrt{N} = 57/\sqrt{21} = 12.2$$

Quality = fair

SPECIES LIST – Site 28 (dominants – *Populus deltoides*, *Salix nigra*, *Cornus obliqua*,
Phalaris arundinacea, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer saccharinum</i>	silver maple	tree	FACW	1
<i>Alisma plantago aquatica</i>	water plantain	herb	OBL	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Carex lacustris</i>	lake sedge	herb	OBL	6
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Fraxinus pennsylvanica</i>	green ash	tree, sapl	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Salix fragilis</i>	crack willow	tree	FAC+	*
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Scutellaria lateriflora</i>	mad dog skullcap	herb	OBL	4
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb/woody vine	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.9$$

$$FQI = \sum C/\sqrt{N} = 13.6$$

Quality = fair

**SPECIES LIST – Site 29 (dominants – *Rhamnus cathartica*, *Cornus obliqua*, *Carex stricta*,
Lythrum salicaria)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Allium cernuum</i>	nodding onion	herb	UPL	7
<i>Aster simplex</i>	panicked aster	herb	FACW	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Equisetum arvense</i>	horsetail	herb	FAC	0
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lonicera tatarica</i>	Tartarian honeysuckle	shrub	FACU	*
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rubus strigosus</i>	red raspberry	herb	FACW-	6
<i>Salix discolor</i>	pussy willow	sapl	FACW	4
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Scutellaria lateriflora</i>	mad dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Viburnum lentago</i>	nannyberry	shrub, sapl	FAC+	4
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.4$$

$$FQI = \sum C/\sqrt{N} = 14.7$$

Quality = fair

SPECIES LIST – Site 30 (dominants – *Populus deltoides*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Acer saccharinum</i>	silver maple	tree/shrub/seedl	FACW	1
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mimulus ringens</i>	winged monkey flower	herb	OBL	5
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Salix discolor</i>	pussy willow	sapl	FACW	4
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Salix fragilis</i>	crack willow	tree, sapl	FAC+	*
<i>Scirpus acutus</i>	hard stem bulrush	herb	OBL	6
<i>Scirpus pendulus</i>	red bulrush	herb	OBL	3
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Vitis riparia</i>	riverbank grape	herb/woody vine	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.4$$

$$FQI = \sum C/\sqrt{N} = 14.7$$

Quality = fair

SPECIES LIST – Site 31 (dominants – *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Alisma plantago aquatica</i>	water-plantain	herb	OBL	2
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster novae angliae</i>	New England aster	herb	FACW	4
<i>Bidens frondosa</i>	beggar-ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cornus racemosa</i>	gray dogwood	shrub	FACW-	2
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Epilobium leptophyllum</i>	bog willow herb	herb	OBL	9
<i>Erechtites hieracifolia</i>	fireweed	herb	FACU	2
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Hypericum perforatum</i>	common St. John's wort	herb	UPL	*
<i>Hypericum punctatum</i>	spotted St. John's wort	herb	FAC+	3
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Lactuca serriola</i>	prickly lettuce	herb	FAC	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugleweed	herb	OBL	5

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

Continued on following page

SPECIES LIST – Site 31 (Continued)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mimulus ringens</i>	winged monkey flower	herb	OBL	5
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Penstemon digitalis</i>	beard tongue	herb	FAC-	4
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Salix exigua</i>	sandbar willow	shrub	OBL	1
<i>Scirpus pendulus</i>	red bulrush	herb	OBL	3
<i>Scutellaria lateriflora</i>	mad dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bitterweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	freshwater cord grass	herb	FACW+	4
<i>Valeriana officinalis</i>	garden heliotrope	herb	FACW+	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	vine, herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.3$$

$$FQI = \sum C/\sqrt{N} = 19.1$$

Quality = fairly high

SPECIES LIST – Site 32 (dominants - *Typha angustifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Equisetum arvense</i>	horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Melilotus alba</i>	white sweet clover	herb	FACU	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rosa multiflora</i>	multiflora rose	herb	FACU	*
<i>Rubus strigosus</i>	red raspberry	herb	FACW-	6
<i>Salix discolor</i>	pussy willow	sapl	FACW	4
<i>Salix fragilis</i>	crack willow	tree	FAC+	*
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.4$$

$$FQI = \sum C/\sqrt{N} = 14.7$$

Quality = fair

SPECIES LIST – Site 33 (dominants – *Phragmites australis*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Anemone virginiana</i>	tall anemone	herb	UPL	4
<i>Circaea lutetiana</i>	enchanter's nightshade	herb	FACU	2
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Parthenicissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Phragmites australis</i>	common reed	herb	FACW+	1
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Ranunculus recurvatus</i>	hooked buttercup	herb	FACW	5
<i>Rhus glabra</i>	smooth sumac	sapl	UPL	1
<i>Rubus strigosus</i>	red raspberry	herb	FACW-	6
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Sambucus canadensis</i>	elderberry	shrub	FACW-	2
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.8$$

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

Quality = fair

SPECIES LIST – Site 34 (dominants - *Salix exigua*, *Phalaris arundinacea*, *Typha angustifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Equisetum arvensis</i>	horsetail	herb	FAC	0
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Eupatorium perfoliatum</i>	boneset	herb	FACW+	4
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Galium tinctorium</i>	stiff bedstraw	herb	OBL	6
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugleweed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Onoclea sensibilis</i>	sensitive fern	herb	FACW	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Phragmites australis</i>	common reed	herb	FACW+	1
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Ribes americanum</i>	wild black currant	shrub	FACW	5
<i>Rubus strigosus</i>	red raspberry	herb	FACW-	6
<i>Salix exigua</i>	sand bar willow	sapl	OBL	1
<i>Scirpus fluviatilis</i>	river bulrush	herb	OBL	3
<i>Scirpus validus</i>	great bulrush	herb	OBL	5
<i>Scutellaria lateriflora</i>	mad dog skullcap	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Veronica scutellata</i>	marsh speedwell	herb	OBL	9
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.6$$

$$FQI = \sum C/\sqrt{N} = 20.3$$

Quality = high

SPECIES LIST – Site 35 (dominants –*Typha angustifolia*, *Phalaris arundinacea*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lycopus virginicus</i>	bugleweed	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Ranunculus sceleratus</i>	cursed crowfoot	herb	OBL	3
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Salix nigra</i>	black willow	tree	OBL	3
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb/woody vine	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.2$$

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

Quality = fair

SPECIES LIST – Site 36 (dominants –*Carex stricta*, *Solidago gigantea*, *Helianthus grosseserratus*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrimonia gryposepala</i>	tall agrimony	herb	FACU+	2
<i>Allium cernuum</i>	nodding onion	herb	UPL	7
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Centaureum pulchellum</i>	centaury	herb	FACU-	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Crateagus mollis</i>	red haw	sapl	FACW-	2
<i>Erechtites hieracifolia</i>	fireweed	herb	FACU	2
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Galium trifidum</i>	small bedstraw	herb	FACW+	10
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Hypericum punctatum</i>	spotted St. John's wort	herb	FAC+	3
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Phlox glaberrima</i>	smooth phlox	herb	FACW	6
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Sonchus arvensis</i>	sow thistle	herb	FAC-	*
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Tradescantia ohiensis</i>	Ohio spiderwort	herb	FACU+	3
<i>Ulmus americana</i>	American elm	sapl	FACW-	5
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.6$$

$$FQI = \sum C/\sqrt{N} = 20.7$$

Quality = high

**SPECIES LIST – Site 37 (dominants – *Cornus racemosa*, *Salix exigua*, *Phalaris arundinacea*,
Lythrum salicaria)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Alisma plantago aquatica</i>	water plantain	herb	OBL	2
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Centaureum pulchellum</i>	centaury	herb	FACU-	*
<i>Cicuta maculata</i>	water hemlock	herb	OBL	4
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Lonicera tatarica</i>	Tartarian honeysuckle	shrub	FACU	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mimulus ringens</i>	winged monkeyflower	herb	OBL	5
<i>Panicum capillare</i>	witchgrass	herb	FAC	0
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC	0
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	seedl	FAC+	2
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Salix fragilis</i>	crack willow	tree	FAC+	*
<i>Scirpus atrovirens</i>	dark green bulrush	herb	OBL	4
<i>Scirpus pendulus</i>	red bulrush	herb	OBL	3
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Sonchus arvensis</i>	sow thistle	herb	FAC-	*
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	shrub	FAC+	4
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.2$$

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

Quality = fair

SPECIES LIST – Site 38 (dominants – *Typha angustifolia*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrimonia gryposepala</i>	tall agrimony	herb	FACU+	2
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Alisma plantago aquatica</i>	water plantain	herb	OBL	2
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Bidens frondosa</i>	common beggar-ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	gray dogwood	shrub	FACW-	2
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Erechtites hieracifolia</i>	fireweed	herb	FACU	2
<i>Eupatorium maculatum</i>	Joe Pye weed	herb	OBL	5
<i>Euthamia graminifolia</i>	grassleaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Fraxinus pennsylvanica</i>	green ash	sapl	FACW	2
<i>Galium trifidum</i>	small bedstraw	herb	FACW+	10
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Gratiola neglecta</i>	hedge hyssop	herb	OBL	5
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Iris shrevei</i>	blue flag iris	herb	OBL	5
<i>Juncus torreyi</i>	Torrey'srush	herb	FACW	3
<i>Leersia oryzoides</i>	rice cutgrass	herb	OBL	3
<i>Leucanthemum vulgare</i>	common tansy	herb	UPL	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

Continued on following page

SPECIES LIST – Site 38 (Continued)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Monarda fistulosa</i>	bergamot	herb	FACU	4
<i>Oxalis stricta</i>	yellow wood sorrel	herb	FACU	0
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC	0
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum lapathifolium</i>	nodding smartweed	herb	FACW+	0
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Populus deltoides</i>	cottonwood	tree	FAC+	2
<i>Ranunculus flabellaris</i>	yellow water buttercup	herb	OBL	6
<i>Ranunculus sceleratus</i>	cursed crowfoot	herb	OBL	3
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rosa multiflora</i>	multiflora rose	shrub	FACU	*
<i>Salix fragilis</i>	crack willow	tree	FAC+	*
<i>Scirpus fluviatilis</i>	river bulrush	herb	OBL	3
<i>Scirpus validus</i>	great bulrush	herb	OBL	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solanum dulcamara</i>	false bittersweet	herb	FAC	*
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	prairie cord grass	herb	FACW+	4
<i>Stachys tenuifolia</i>	hedge nettle	herb	OBL	5
<i>Teucrium canadense</i>	Germander	herb	FACW-	3
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Typha latifolia</i>	common cattail	herb	OBL	1
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Viburnum lentago</i>	nannyberry	herb	FAC+	4
<i>Viola pratincola</i>	common blue violet	herb	FAC	1
<i>Vitis riparia</i>	riverbank grape	vine, herb	FACW-	2
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.75$$

$$FQI = \sum C/\sqrt{N} = 19.8$$

Quality = fairly high

SPECIES LIST – Site 39 (dominants – *Phalaris arundinacea*, *Lythrum salicaria*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Centaureum pulchellum</i>	centaury	herb	FACU+	*
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Dipsacus laciniatus</i>	cutleaf teasel	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC	0
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Scirpus pendulus</i>	red bulrush	herb	OBL	3
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Verbana hastata</i>	blue vervain	herb	FACW+	3

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 1.9$$

$$FQI = \sum C/\sqrt{N} = 6.3$$

Quality = low

SPECIES LIST – Site 40 (dominants –*Carex* sp., *Phalaris arundinacea*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex</i> sp.	sedge	herb	----	--
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Hypericum perforatum</i>	common St. John's wort	herb	UPL	*
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Salix discolor</i>	pussy willow	sapl	FACW	4
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Salix humulis</i>	prairie willow	shrub	FACU	5
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Viola pratincola</i>	common blue violet	herb	FAC	1

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.4$$

$$FQI = \sum C/\sqrt{N} = 8.8$$

Quality = low

SPECIES LIST – Site 41 (dominants – *Cornus racemosa*, *Salix exigua*, *Carex stricta*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Aster puniceus</i>	swamp aster	herb	OBL	7
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex cristatella</i>	sedge	herb	FACW	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cornus racemosa</i>	grey dogwood	shrub	FACW-	2
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Glyceria striata</i>	fowl manna grass	herb	OBL	4
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Liatris spicata</i>	blazing star	herb	FAC	7
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Monarda fistulosa</i>	bergamot	herb	FACU	4
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Salix eriocephala</i>	Missouri River willow	sapl	FACW	8
<i>Salix exigua</i>	sandbar willow	sapl	OBL	1
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Viola pratincola</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.8$$

$$FQI = \sum C/\sqrt{N} = 15.2$$

Quality = fair

**SPECIES LIST – Site 42 (dominants –*Carex stricta*, *Apocynum cannabinum*, *Solidago gigantea*,
Dipsacus laciniatus)**

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	redtop	herb	FACW	0
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Apocynum cannabinum</i>	dogbane	herb	FAC	2
<i>Aster pilosus</i>	hairy aster	herb	FACU+	0
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Centaureum pulchellum</i>	centaury	herb	FACU-	*
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACU+	4
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Dipsacus laciniatus</i>	cutleaf teasel	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Erigeron annuus</i>	annual fleabane	herb	FAC-	1
<i>Eupatorium altissimum</i>	tall boneset	herb	FACU	1
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fraxinus pennsylvanica</i>	green ash	seedl	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Penthorum sedoides</i>	ditch stonecrop	herb	OBL	2
<i>Plantago rugelii</i>	Rugel's plantain	herb	FAC	0
<i>Polygonum pensylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Prunella vulgaris elongata</i>	cottonwood	seedl	FAC+	2
<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>Sonchus arvensis</i>	sow thistle	herb	FAC-	*
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Trifolium hybridum</i>	alsike clover	herb	FAC-	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 2.1$$

$$FQI = \sum C/\sqrt{N} = 11.8$$

Quality = fair

SPECIES LIST – Site 43 (dominants – *Carex stricta*, *Galium trifidum*, *Helianthus grosseserratus*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Ambrosia artemisiifolia</i>	common ragweed	herb	FACU	0
<i>Asclepias syriaca</i>	common milkweed	herb	UPL	0
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calamagrostis canadensis</i>	blue joint grass	herb	OBL	3
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Cornus obliqua</i>	pale dogwood	shrub	FACW+	4
<i>Cyperus strigosus</i>	straw colored flatsedge	herb	FACW	0
<i>Dipsacus laciniatus</i>	cutleaf teasel	herb	UPL	*
<i>Epilobium coloratum</i>	cinnamon willow herb	herb	OBL	3
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Fragaria virginiana</i>	wild strawberry	herb	FAC-	2
<i>Galium trifidum</i>	small bedstraw	herb	FACW+	10
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus dudleyi</i>	Dudley's rush	herb	FAC	4
<i>Lathyrus palustris</i>	marsh pea	herb	OBL	7
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Mentha arvensis</i>	field mint	herb	FACW	4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	herb	FAC-	2
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Prunella vulgaris elongata</i>	self heal	herb	FAC	1
<i>Pycnanthemum virginianum</i>	mountain mint	herb	FACW+	5
<i>Rhamnus frangula</i>	glossy buckthorn	sapl	FAC+	*
<i>Senecio pauperculus</i>	balsam groundsel	herb	FAC+	4
<i>Sium suave</i>	water parsnip	herb	OBL	5
<i>Solidago gigantea</i>	late goldenrod	herb	FACW	3
<i>Spartina pectinata</i>	prairie cordgrass	herb	FACW+	4
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Vitis riparia</i>	riverbank grape	herb	FACW-	2

= Coefficient of Conservatism (Taft et al. 1997)

* Non-native species

$$mCv = \sum C/N = 3.5$$

$$FQI = \sum C/\sqrt{N} = 18.1$$

Quality = fair

SPECIES LIST – Site 44 (dominants - *Typha angustifolia*, *Phalaris arundinacea*)

Scientific Name	Common Name	Stratum	Wetland indicator status	C=
<i>Agrostis alba</i>	red top	herb	FACW	0
<i>Asclepias incarnata</i>	swamp milkweed	herb	OBL	4
<i>Bidens frondosa</i>	beggar's ticks	herb	FACW	1
<i>Calystegia sepium</i>	hedge bindweed	herb	FAC	1
<i>Carex cristatella</i>	sedge	herb	FACW+	3
<i>Carex stricta</i>	tussock sedge	herb	OBL	5
<i>Cirsium arvense</i>	Canada thistle	herb	FACU	*
<i>Conyza canadensis</i>	horseweed	herb	FAC-	0
<i>Daucus carota</i>	Queen Anne's lace	herb	UPL	*
<i>Dipsacus laciniatus</i>	cutleaf teasel	herb	UPL	*
<i>Echinochloa muricata</i>	barnyard grass	herb	OBL	0
<i>Eleocharis erythropoda</i>	spikerush	herb	OBL	3
<i>Erechtites hieracifolia</i>	fireweed	herb	FACU	2
<i>Euthamia graminifolia</i>	grass leaf goldenrod	herb	FACW-	3
<i>Geum laciniatum</i>	rough avens	herb	FACW	2
<i>Helianthus grosseserratus</i>	sawtooth sunflower	herb	FACW-	2
<i>Juncus torreyi</i>	Torrey's rush	herb	FACW	3
<i>Leucanthemum vulgare</i>	common tansy	herb	UPL	*
<i>Lycopus americanus</i>	water horehound	herb	OBL	3
<i>Lythrum alatum</i>	winged loosestrife	herb	OBL	5
<i>Lythrum salicaria</i>	purple loosestrife	herb	OBL	*
<i>Panicum dichotomiflorum</i>	fall panicum	herb	FACW-	0
<i>Phalaris arundinacea</i>	reed canary grass	herb	FACW+	*
<i>Polygonum amphibium</i>	water smartweed	herb	OBL	3
<i>Polygonum pennsylvanicum</i>	giant smartweed	herb	FACW+	1
<i>Polygonum punctatum</i>	dotted smartweed	herb	OBL	3
<i>Populus deltoides</i>	cottonwood	seedl	FAC+	2
<i>Potentilla norvegica</i>	rough cinquefoil	herb	FAC	0
<i>Rhamnus cathartica</i>	common buckthorn	sapl	FACU	*
<i>Rorippa islandica</i>	marsh yellow cress	herb	OBL	4
<i>Rumex crispus</i>	curly dock	herb	FAC+	*
<i>Scirpus americanus</i>	American bulrush	herb	OBL	3
<i>Scirpus fluviatilis</i>	river bulrush	herb	OBL	3
<i>Solidago canadensis</i>	Canada goldenrod	herb	FACU	1
<i>Typha angustifolia</i>	narrow leaf cattail	herb	OBL	*
<i>Verbena hastata</i>	blue vervain	herb	FACW+	3
<i>Xanthium strumarium</i>	cocklebur	herb	FAC	0

= Coefficient of Conservatism (Taft et al. 1997)

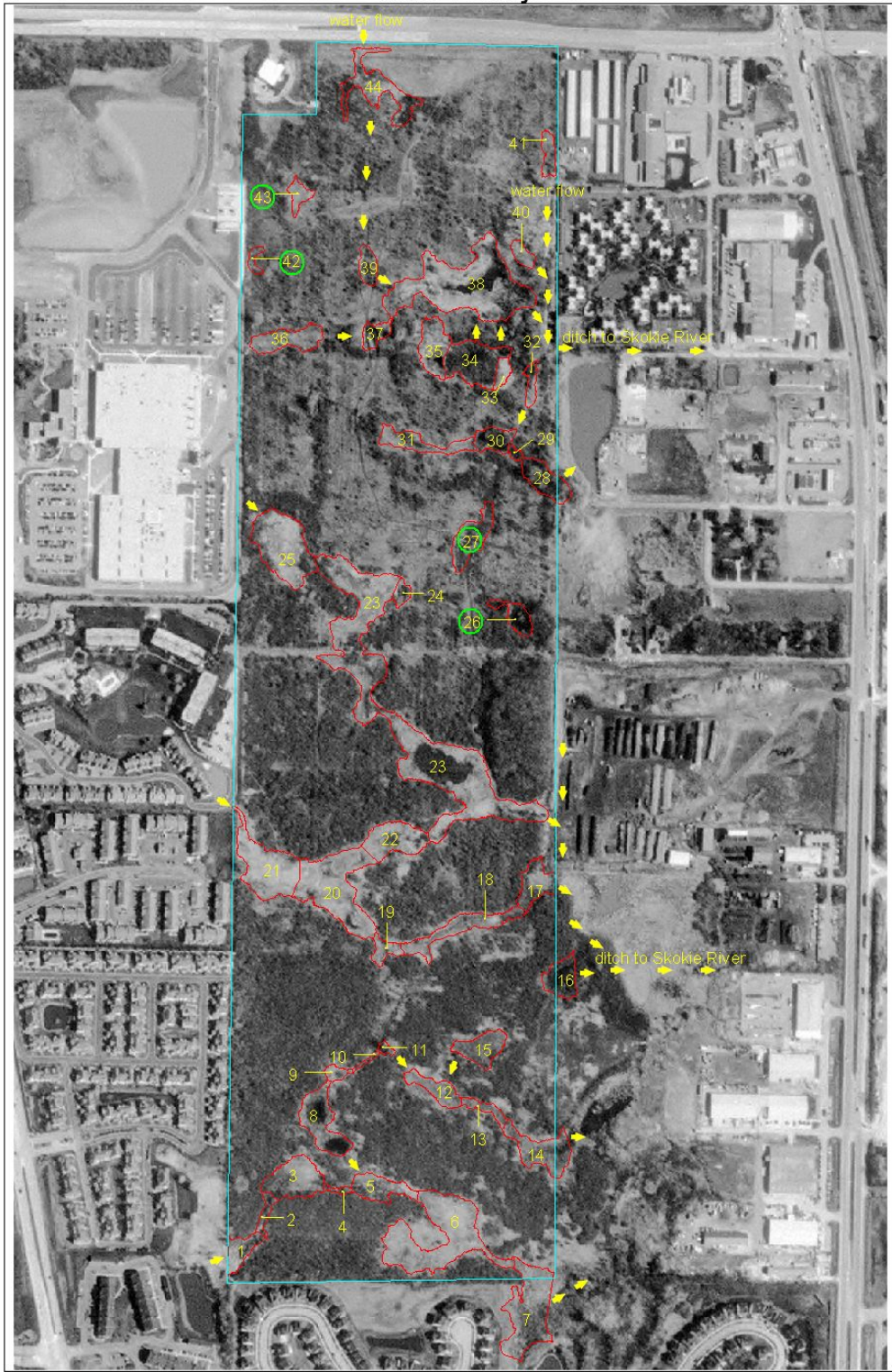
* Non-native species

$$mCv = \sum C/N = 2.1$$

$$FQI = \sum C/\sqrt{N} = 11.0$$

Quality = fair

North Chicago Mitigation Site Lake County



- Wetland site
- Site boundary
- Isolated wetlands



scale 1:4800
1 inch=400 ft



06/06