MN WHEP VEGETATION SURVEY FIELD SHEET: SITE INFORMATION

Site Name: Brick Pond
Date/Time: 7/16/04 5:00
Team Leader/Observer: Robert Orleans
Team Name: Eagan
Local Sponsor: Dakota Co.
County: Dakota

Location Infromation (UTM coordinates from GPS unit, Township Range Section coordinates, or street directions):

497232.8614 (x) 4982563.69786 (y) Datum: NAD 83

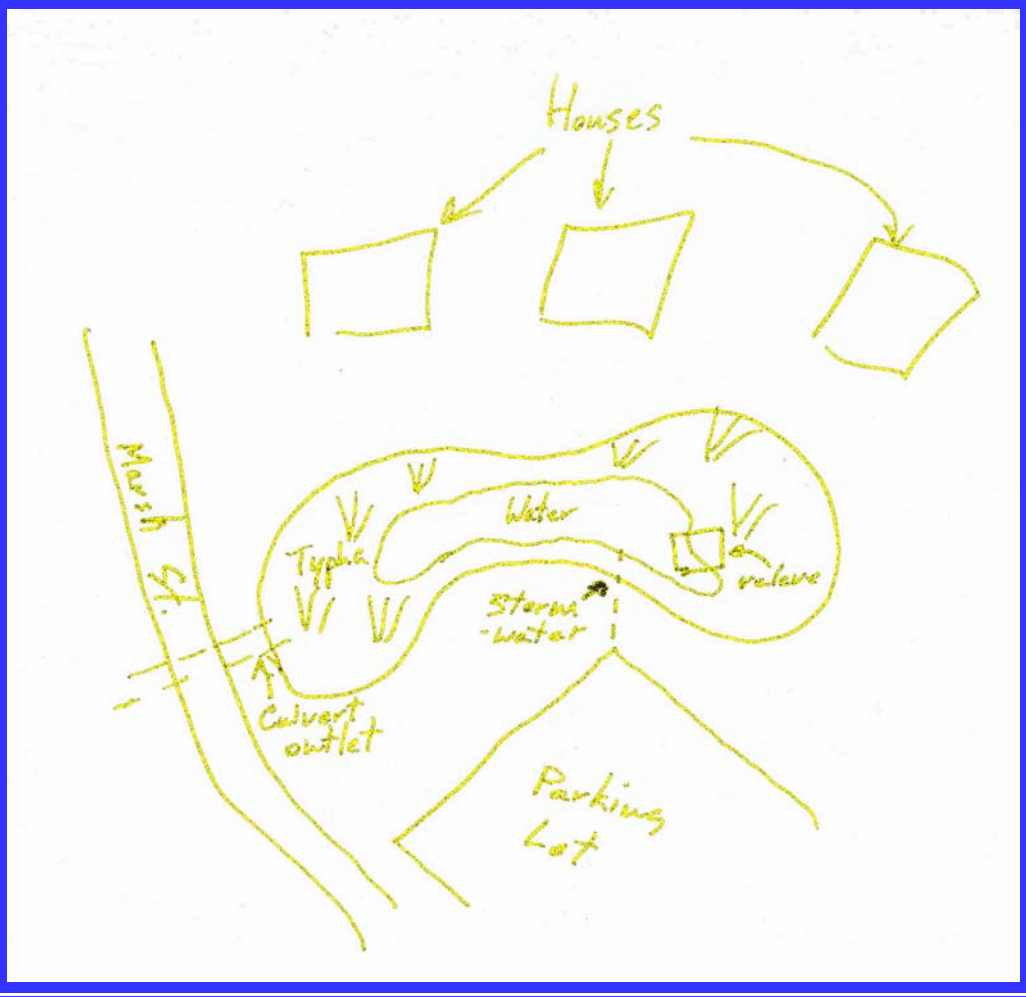
Site Description (Include vegetation, water pathway, and immediate land use descriptions. Note any unique plants or plant communities within the wetland but occurring outside of the releve. Did you observe any wildlife while at this site?):

-Relatively small (<1 acre) wetland with cat-tail dominated emergent veg, lily pads in the middle

-Wetland drains west into Brick Lake

-Houses to the north have well groomed lawns (they probably spray) mowed to wetland edge, eastern margin bordered by an old field, stormwater is coming from the parking lot to the south

Site Sketch (Include vegetation zones, water inlets and outlets, point source pollution inputs such as stormwater pipes, immediate land use practices, any landmarks, and the location of the releve in the wetland):



MN WHEP VEGETATION SURVEY FIELD SHEET: RELEVE DATA

Site Name:_____ Date/Time:_____
Team Leader/Observer:_____ Team Name:_____
Local Sponsor: County:

Releve Dimensions (circle one): **10 m x 10 m** or **5 m x 20 m** = 100 m^2
Is the releve typical of the wetland plant community ? (circle one): **Yes** or **No** (explain below)
Water depth in the plot (meters): Shallowest:_____m Deepest:_____m
Substrate/bottom description:

Comments:

Note: *Numbers in ( ) refer to the metrics where the data are used*

Pres CC NONVASCULAR (2, 6)
Chara (Muskgrass)
Lichen
Moss

Riccia fluitans (Slender Riccia)
Ricciocarpus natans (Purple-Fringed Riccia)

Pres CC LOW VASCULAR (1)
Equisetum (Horsetail)
Onoclea sensibilis (Sensitive Fern)
Osmunda (Osmunda)
Thelypteris palustris (Marsh-Fern)

Pres CC WOODY (1)
Vines

Parthenocissus (Virginia Creeper)
Vitis riparia (Grape)

Shrubs or Trees with Opposite Leaves
Acer (Maple, Box Elder)
Cornus (Dogwood)
Fraxinus (Ash)
Rhamnus cathartica (Common Buckthorn)

Shrubs or Trees with Alternate Leaves
Alnus (Alder)
Frangula alnus (Alder-Buckthorn)
Populus (Aspen, Cottonwood)
Quercus (Oak)
Rubus (Raspberry, Dewberry, Blackberry)
Salix (Willow)
Spiraea alba (Meadowsweet)
Ulmus (Elm)

Pres CC GRASSLIKE (1, 3, 4, 7)
Sedges, Bulrushes, Rushes
Carex (Sedge)
Cyperus (Flatsedge)
Dulichium arundinaceum (Three-Way Sedge)
Eleocharis (Spike-Rush)
Juncus (Rush)
Scirpus (Bulrush)

True Grasses
Agrostis (Bent Grass)
Alopecurus (Foxtail)
Calamagrostis (Reed Grass)
Echinochloa (Barnyard-Grass)
Glyceria (Manna-Grass)
Leersia (Cut Grass)
Phalaris arundinacea (Reed Canary-Grass)
Phragmites australis (Giant Reed)
Poa (Blue Grass)
Spartina pectinata (Prairie Cord-Grass)
Zizania aquatica (Wild Rice)

Cover Class (CC)	Percent Cover Range
6	75-100%
5	50-75%
4	25-50%
3	5-25%
2	1-5%
1	0-1%

Pres CC **FORBS (1, 5, 6, 7)**

Submergent Aquatic Forbs

Ceratophyllum (Coontail)
Elodea (Waterweed)
Megalodonta beckii (Water Beggar-Ticks)

Myriophyllum (Water-Milfoil)
Najas (Water-Nymph)
Potamogeton (Pondweed)
Ranunculus (Water-Crowfoot)
Utricularia (Bladderwort)
Vallisneria americana (Water-Celery)
Zannichellia palustris (Horned Pondweed)

Floating Leaved Aquatic Forbs

Brasenia schreberi (Water-Shield)
Lemna (Duckweed)
Nuphar (Yellow Water-Lily)
Nymphaea (White Water-Lily)
Polygonum amphibium (Water-Smartweed)
Potamogeton (Pondweed)
Spirodela polyrhiza (Greater Duckweed)
Wolfia (Water-Meal)

Emergent Forbs with Basal Leaves

Acorus (Sweet Flag)
Alisma (Water-Plantain)
Calla palustris (Water-Arum)
Caltha palustris (Marsh-Marigold)
Iris (Iris, Flag)

Pontedaria cordata (Pickerelweed)
Rumex (Dock)
Sagittaria (Arrowhead)
Sparganium (Bur-Reed)
Typha (Cat-Tail)

Additional/Unknown Forbs

Pres CC **FORBS (1, 5, 6, 7)**

Emergent Forbs from a Distinct Stem

Asclepias incarnata (Swamp-Milkweed)
Aster (Aster)

Bidens (Beggar-Ticks)
Campanula aparinoides (Marsh-Bellflower)
Cicuta (Water-Hemlock)
Cirsium (Thistle)
Epilobium (Willow-Herb)
Eupatorium (Joe-Pye Weed, Boneset)
Euthamia (Grass-Leaved Goldenrod)

Galium (Bedstraw)
Hypericum (St. John's-Wort)
Impatiens (Jewelweed)
Lathyrus (Wild Pea)
Lycopus (Bugle Weed)
Lysimachia (Loosestrife)

Lythrum (Loosestrife)
Mentha arvensis (Field-Mint)

Pilea (Clearweed)
Polygonum (Smartweed)
Potentilla palustris (Marsh-Cinquefoil)
Scutellaria (Skullcap)
Sium suave (Water-Parsnip)
Solanum dulcamara (Nightshade)
Solidago (Goldenrod)
Stachys (Hedge-Nettle
Triadenum fraseri (Marsh St. John's-Wort)
Urtica dioica (Stinging Nettle)
Verbena hastata (Blue Vervain)

Additional Comments:

MN WHEP VEGETATION SURVEY FIELD SHEET: RreleVE DATA

Site Name: Brick Pond
Date/Time: 7/16/04 5:00
Team Leader/Observer: Robert Orleans
Team Name: Eagan
Local Sponsor: Dakota Co.
County: Dakota

Releve Shape (circle one): **10 m x 10 m** or **5 m x 20 m** = 100 m^2
Is the releve typical of the wetland plant community ? (circle one): **Yes** or **No** (explain below)
Water depth in the plot (meters): Shallowest: 0 m Deepest: 1 m
Substrate/bottom description:
- Very mucky bottom, water does not appear to be deeper than 1 m

Comments:
- Water column is clear
- Many toads and a pair of mallards present

Note: *Numbers in ( ) refer to the metrics where the data are used*

Pres	CC	NONVASCULAR (2, 6)
		Chara (Muskgrass)
		Lichen
		Moss
		Riccia fluitans (Slender Riccia)
✓	2	*Ricciocarpus natans* (Purple-Fringed Riccia)

Pres	CC	LOW VASCULAR (1)
		Equisetum (Horsetail)
		Onoclea sensibilis (Sensitive Fern)
		Osmunda (Osmunda)
		Thelypteris palustris (Marsh-Fern)

Pres	CC	WOODY (1)
		Vines
		Parthenocissus (Virginia Creeper)
		Vitis riparia (Grape)
		Shrubs or Trees with Opposite Leaves
		Acer (Maple, Box Elder)
		Cornus (Dogwood)
		Fraxinus (Ash)
		Rhamnus cathartica (Common Buckthorn)
		Shrubs or Trees with Alternate Leaves
		Alnus (Alder)
		Frangula alnus (Alder-Buckthorn)
		Populus (Aspen, Cottonwood)
		Quercus (Oak)
		Rubus (Raspberry, Dewberry, Blackberry)
✓	1	*Salix* (Willow)
		Spiraea alba (Meadowsweet)
		Ulmus (Elm)

Pres	CC	GRASSLIKE (1, 3, 4, 7)
		Sedges, Bulrushes, Rushes
✓	2	*Carex* (Sedge)
		Cyperus (Flatsedge)
		Dulichium arundinaceum (Three-Way Sedge)
✓	2	*Eleocharis* (Spike-Rush)
		Juncus (Rush)
		Scirpus (Bulrush)
		True Grasses
		Agrostis (Bent Grass)
		Alopecurus (Foxtail)
		Calamagrostis (Reed Grass)
		Echinochloa (Barnyard-Grass)
✓	1	*Glyceria* (Manna-Grass)
		Leersia (Cut Grass)
✓	3	*Phalaris arundinacea* (Reed Canary-Grass)
		Phragmites australis (Giant Reed)
		Poa (Blue Grass)
		Spartina pectinata (Prairie Cord-Grass)
		Zizania aquatica (Wild Rice)

Cover Class (CC)	Cover Class (CC) Estimate
6	75-100%
5	50-75%
4	25-50%
3	5-25%
2	1-5%
1	0-1%

Pres	CC	FORBS (1, 5, 6, 7)
		Submergent Aquatic Forbs
☑	4	*Ceratophyllum* (Coontail)
		Elodea (Waterweed)
		Megalodonta beckii (Water Beggar-Ticks)
		Myriophyllum (Water-Milfoil)
		Najas (Water-Nymph)
☑	2	*Potamogeton* (Pondweed)
		Ranunculus (Water Crowfoot)
		Utricularia (Bladderwort)
		Vallisneria americana (Water Celery)
		Zannichellia palustris (Horned Pondweed)
		Floating Leaved Aquatic Forbs
		Brasenia schreberi (Water-Shield)
☑	4	*Lemna* (Duckweed)
☑	3	*Nuphar* (Yellow Water-Lily)
		Nymphaea (White Water-Lily)
☑	2	*Polygonum amphibium* (Water Smartweed)
☑	2	*Potamogeton* (Pondweed)
		Spirodela polyrhiza (Greater Duckweed)
		Wolfia (Water-Meal)
		Emergent Forbs with Basal Leaves
		Acorus (Sweet Flag)
		Alisma (Water-Plantain)
		Calla palustris (Water-Arum)
		Caltha palustris (Marsh-Marigold)
		Iris (Iris, Flag)
		Pontedaria cordata (Pickerelweed)
		Rumex (Dock)
		Sagittaria (Arrowhead)
		Sparganium (Bur-Reed)
☑	5	*Typha* (Cat-Tail)

Pres	CC	FORBS (1, 5, 6, 7)
		Emergent Forbs from a Distinct Stem
		Asclepias incarnata (Swamp-Milkweed)
		Aster (Aster)
☑	1	*Bidens* (Beggar-Ticks)
		Campanula aparinoides (Marsh-Bellflower)
		Cicuta (Water-Hemlock)
☑	1	*Cirsium* (Thistle)
		Epilobium (Willow-Herb)
		Eupatorium (Joe-Pye Weed, Boneset)
		Euthamia (Grass-Leaved Goldenrod)
		Galium (Bedstraw)
		Hypericum (St. John's-Wort)
		Impatiens (Jewelweed)
		Lathyrus (Wild Pea)
☑	1	*Lycopus* (Bugle Weed)
		Lysimachia (Loosestrife)
		Lythrum (Loosestrife)
		Mentha arvensis (Field-Mint)
		Pilea (Clearweed)
☑	1	*Polygonum* (Smartweed)
		Potentilla palustris (Marsh-Cinquefoil)
		Scutellaria (Skullcap)
		Sium suave (Water-Parsnip)
		Solanum dulcamara (Nightshade)
		Solidago (Goldenrod)
		Stachys (Hedge-Nettle
		Triadenum fraseri (Marsh St. John's-Wort)
		Urtica dioica (Stinging Nettle)
		Verbena hastata (Blue Vervain)

		Additional/Unknown Forbs
☑	1	**Unknown Forb #1**

Additional Comments:

-There are 2 Potamogetons in the plot, 1 floating leaved and 1 submergent

-Total Potamogeton CC = 3

-There are 2 Polygonums

-Total Polygonum CC = 2

MN WHEP VEGETATION SURVEY METRIC SCORING SHEET

Site Name: Brick Pond
Date Sampled: 7/16/04
Team Leader/Observer: Robert Orleans
Date Scored: 7/22/04
Team Name: Eagan
County: Dakota
Local Sponsor: Dakota Co.

1) Vascular Genera

-Count the number of different genera of low vascular plants (Ferns & Horsetails), woody plants, grasslikes, & forbs observed within the sample plot. Be careful not to count the same genus twice.

a. Number of **Low Vasculars**: 0

b. Number of **Woody Plants**: 1

c. Number of **Grasslikes**: 4

d. Number of **Forbs**: 10

e. **Plot Tally** (sum of a - d): 15

f. **Metric #1 Score**: 3

Scoring criteria for Vascular Genera

Plot Tally	Score
= 20	5
9 - 19	3
0 - 8	1

Comments:

2) Nonvascular Taxa

-Count the number of different kinds of nonvascular taxa observed within the sample plot. Do not count algae, but note in the comments section.

a. **Plot Tally**: 1

b. **Metric #2 Score**: 3

Scoring criteria for Nonvascular Taxa

Plot Tally	Score
= 2	5
1	3
0	1

Comments:

MN WHEP VEGETATION SURVEY METRIC SCORING SHEET

Site Name: Brick Pond Team Name: Eagan Date Sampled: 7/16/04

3) Grasslike Genera

-Count the number of different kinds of grasslike genera observed within the sample plot (refer to metric #1, part c).

a. Plot Tally: 4

b. Metric #3 Score: 3

Comments:

Scoring criteria for Grasslike Genera

Plot Tally	Score
= 5	5
2 - 4	3
0 - 1	1

4) *Carex* Cover

-Estimate the percent cover of *Carex* within the sample plot.

a. *Carex* Cover Class Value: 2

b. Metric #4 Score: 3

Comments:

Scoring criteria for *Carex* Cover

CC Value	Percent	Score
3 - 6	= 5%	5
2	1 - 5%	3
0 - 1	0 - 1%	1

5) *Utricularia* Presence

a. Was *Utricularia* present in the plot? Yes (No)

b. Metric #5 Score: 1

Comments:

Scoring criteria for *Utricularia* Presence

Presence/Absence	Score
Present	5
Absent	1

6) Aquatic Guild

-Count the number of different Aquatic Guild genera. This includes the submergent aquatic forbs and floating leaved aquatic forbs listed on the releve data sheet ***and*** *Chara*, *Riccia fluitans*, and *Ricciocarpus natans*

a. Plot Tally: 6

b. Metric #6 Score: 5

Comments:

Scoring criteria for Aquatic Guild

Plot Tally	Score
= 6	5
3 - 5	3
0 - 2	1

MN WHEP VEGETATION SURVEY METRIC SCORING SHEET

Site Name: Brick Pond Team Name: Eagan Date Sampled: 7/16/04

7) Persistent Litter

-Record the cover class (CC) of each plant taxa listed below that was found in your plot. Determine the midpoint % cover and sum all of the values to score this metric. The midpoint % cover is the middle percentage of the range that a CC represents. Data must be converted from CC to midpoint % before being added together, because the ranges that CC's represent are not equal.

a. Sum of midpoint percent cover:

Plant	CC	Midpoint %
Typha (Cat Tail)	5	63
Sparganium (Bur-Reed)		
Lythrum (Loosestrife)		
Phragmites australis (Giant Reed)		
Scirpus (Bulrush)		
Polygonum (Smartweed)	2	3

Total Midpoint %: 66 (%)

CC	Percent Cover Range	Midpoint %
6	75-100	87
5	50-75	63
4	25-50	38
3	5-25	15
2	1-5	3
1	0-1	0.5

b. Metric #7 Score: 1

Scoring criteria for Persistent Litter

Total Midpoint %	Score
= 27%	5
28 - 54%	3
= 54%	1

Comments:

IBI Summary

-Tally your results from the seven metrics and add them together to arrive at a wetland vegetation IBI score and condition assessment for the site.

Metric	Score
1) Vascular Genera	3
2) Nonvascular Taxa	3
3) Grasslike Genera	3
4) *Carex* Cover	3
5) *Utricularia* Presence	1
6) Aquatic Guild	5
7) Persistent Litter	1
Total:	19

Site Score Interpretation

IBI Score	Wetland assessment
26 - 35	Excellent
16 -25	Moderate
7 - 15	Poor

Wetland Condition Assessment: Moderate

MN WHEP VEGETATION SURVEY METRIC SCORING SHEET

Site Name: Brick Pond Team Name: Eagan Date Sampled: 7/16/04

Additional Site Remarks

-Please provide any additional information about this site and/or the vegetation survey. Do you think the methods for evaluating the vegetation are adequate for this site? Does the condition assessment reflect your impressions of the site? Are there any potential threats to the site (e.g. new developments, stormwater inputs, roads, etc)?

-The vegetation is pretty homogenous at this site, so we're pretty confident that our releve accurately characterized the wetland

-We agree with the assessment. The aquatic community looks ok but the emergent community is being overrun with cat tails giving an overall moderate assessment.