WETLANDS OF THE TOWN OF BERNE

AN INVENTORY

OF

WETLANDS OVER 12.4 ACRES

IN THE

TOWN OF BERNE

Conducted by
CHARLES EMMERICK
Assisted by
Students at SUNY Cobleskill
For the
Berne Conservation Advisory Council
1981

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WETLAND RESOURCES IN THE TOWN OF BERNE

Preface

Wetlands, as the name implies, are areas which are covered with water during at least part of the year. Thus the term wetland is a general one which includes marshes, shrub swamps, wet meadows and flooded woods. The legal definition is discussed in the background section.

Until recently people have seen wetlands as useless real estate unless developed. The fertile marsh has been drained for farmland. Wetlands have been used for dumps or land fills. Some have been cut in half by highways or railroads. Only recently have we begun to appreciate the value of our wetlands as havens for wildlife and for their hydrological benefits.

In other towns in New York State wetlands have been frequently drained or filled and used for croplands, homesites, resorts, highways and dumps. We are fortunate in Berne to have retained most of our wetlands in their original state. Outstanding exceptions were the draining of Hillcrest Farms and Cole Hill farms for agriculture purposes and the placement of dams which replaced wetlands with Helderberg and Warners lakes and Woodstock Pond. With recognition and wise use, the remaining wetlands will continue to provide Berne residents and their posterity access to one of the Town of Berne's most valuable resources.

In recent years, wetlands have finally achieved recognition and statutory protection for the rich values they have always possessed. For decades, particularly since World War II, "swamps" were drained and filled at an accelerated rate. At present over one third of all wetlands in the United States have been converted to other uses; primarily agricultural, industrial and residential. While it was expedient to claim wetlands for these other uses as our country expanded, we now realize that wetlands are a valuable and limited resource. Not only are wetlands habitats for a variety of plan and animal species that cannot live elsewhere, they retard runoff from melting snow and heavy rains and recharge our groundwater supply during dry periods.

Characteristically each and every wetland is unique. Variables such as type of soil, extent of open water, dominant aquatic and upland vegetation and geography, to some degree, influence a wetland environment.

An example of this would be the difference between a shallow fresh marsh area and a deep fresh marsh area. The shallow fresh march area would be utilized by waterfowl as a feeding area. A deep (6" – 3' water) fresh marsh could be the breeding area for waterfowl or possibly a feeding area for pickerel. Such a dual purpose of a wetland is generally the rule and not the exception. The animal and plant diversity encountered in a wetland ecosystem is seldom found elsewhere. Two vital functions of wetlands are as reproductive and feeding stations for the waterfowl during certain times of the year. Aside from waterfowl other avian species such as the red-winged blackbird use the cattails and shrubs as perching and feeding areas. Marsh hawks in daylight hours scan the grass hummocks for evidence of the active short-tail shrew who in turn is searching for a meal of insects and worms. Amphibians could not survive without the small quiet pools formed in a wetland. The water levels of these pools are stable enough to allow metamorphosis to occur with relative security.

The production of fur is another valuable asset we can attribute to our wetlands. Perhaps the most common furbearing mammal is the muskrat. About the size of a small cat, this animal makes its watery home usually near an abundance of aquatic vegetation. However, another common aquatic animal, the beaver, is more important for both an ecological and economic point of view. Beavers have the habit of creating their own wetlands by damming a stream where the appropriate topographical conditions and proper food supply occur. The water backed up by this type of dam is extremely productive for the first few years of its existence. Due to the sudden release of soil nutrients to the impounded area and subsequent multiplication in each level of the food chain, fish have been known to grow quite quickly in the waters behind a beaver dam.

Wetlands exhibit a great capacity for flood control. Usually a marsh has a relatively gradual slope with a meandering or intermittent stream moving through it. When severe rainstorms or spring flood occur, the water force is spread out over a large surface area instead of being channeled through a narrow stream channel or conduit. The wetlands in this instance act like a sponge, releasing the water slowly into the watershed. They also act as a filter by slowing the water down and depositing sediments which would otherwise be carried out to sea and lost forever.

Wetlands are essential for the replenishment of underground water supplies. Surface and submergant vegetation slow down the rate of waterflow through the wetland allowing the water to be absorbed by the soil. For this process to occur effectively, an undisturbed vegetative cover is essential.

Objectives

The objective of the wetland inventory is twofold:

1) To provide a data basis for which broad decisions could be made for maintaining in perpetuity the wetland resource values of the Town of Berne; and,
2) To provide information on individual protected wetlands to aid the zoning administrator and other Town agencies in making decisions regarding regulated uses.

Background

In 1975 the State Legislature enacted the Freshwater Wetlands Act which was signed into law by Governor Hugh Carey. Wetlands are legally defined in Part 662 of the Environmental Conservation Law. Essentially this definition includes any land or water areas that support various aquatic and semiaquatic plants named in the Law. Included in any protected wetland is a 100 foot boundary completely circumscribing it. The rules for the freshwater wetland law require that all wetlands in the state over 12.4 acres (5 hectares) by protected. Protected meaning that certain activities outlined in Article 24 of the rules are either prohibited or restricted. A number of other activities, including most renewable resource uses such as hunting, fishing, hiking, snowmobiling, and limited cutting of trees are still allowed.

In 1979, following a Public Hearing, the Town of Berne adopted a Law to provide for the protection of freshwater wetlands. With this passage, the Town was in a position

to regulate the use of its protected wetlands once final authority is turned over by the Department of Environmental Conservation (DEC).

This will come about when the final maps are in the hands of the Town Clerk and procedures for administration the Law are worked out with DEC.

There are some 160 wetlands in the Town. The Law allows for extending protection to all wetlands, but the Conservation Advisory Council has decided to include only those over 12.4 acres. Most of the valuable wooded wetlands are in this category and it would be difficult to ascertain boundaries and enforce protection provisions on the wet meadows many of which are an acre or less in size.

Inventory Procedures

A fairly detailed inventory was made of all 36 wetlands over 12.4 acres. This inventory was conducted in the fall of 1979 and 1980. Tentative wetland maps were obtained from DEC and on-site field checks of these indicated wetlands were made.

SUNY Cobleskill students enrolled in NR290, a special projects course, checked the tentative wetland by comparing them with USGS topo maps and DOE Planimetric maps. After each tentative wetland was identified, the SUNY students actually visited each wetland and filled out the Wetland Inventory Field Data Sheets. These data sheets will be kept on file for Town planning purposes such as building permit issuance and to provide data for zoning variance permits. A completed Wetland Inventory Data sheet for each protected wetland in the Town is included in this report. In addition, a table listing the acreage on adjacent landowners is presently being prepared and will be attached to this report.

Recommendations

The maps and the inventory should be kept on file at the Town Hall for use by the Town agencies. The Town Zoning Administrator should use the inventory when reviewing building and other permits to insure that no wetland regulation is violated. Students who assisted in the report by planning and gathering data:

Betty Urbanski	Fall 1979
Gail Shaughesy	Fall 1979
Nancy Frost	Fall 1979
Linda Nash	Fall 1980
Laurie Berstein	Fall 1980
Gary Augestine	Fall 1980

ACREAGE OF PROTECTED WETLANDS IN THE TOWN OF BERNE*

G-28 – 40 Ac
G-20 – 69 Ac
A1-26 – 21 Ac
A1-27 - 21 Ac
A1-28 – 79 Ac
A1-37 – 52 Ac
W-1 – 27 Ac
W-2 – 13 Ac
W-5 – 36 Ac
W-6 – 27 Ac
W-8 – 14 Ac
W-10 – 96 Ac
W-11 – 126 Ac
W-12 – 33 Ac
W-13 – 19 Ac
W-47 – 14 Ac
W-49 – 16 Ac
W-65 – 13 Ac

RE -1 – 200 Ac
RE -2 – 20 Ac
RE -3 – 29 Ac
RE-4 – 38 Ac
RE-7 – 19 Ac
RE-8 – 27 Ac
RE-10 – 39 Ac
RE-12 – 14 Ac
RE-15 – 38 Ac
RE-18 – 13 Ac
RE-19 – 24 Ac
RE-21 – 16 Ac
RE-25 – 18 Ac
RE-47 – 13 Ac
RE-50 – 47 Ac
RE-51 – 29 Ac

*Acreage date provided by Albany County Environmental Management Council

LANDOWNER LIST
FRESHWATER WETLANDS

Wetland Owners	Town of Berne	Landowner's Mailing Address
	Wetland #RE-1	
E. Schoonmaker		West Berne, NY 12191
P. & M. Zuk		Box 61 West Berne, NY 12191
I. & A. Paris (and #RE-3)		Bradt Hollow Road West Berne, NY 12191
L. & E. Hempstead		R.F.D.2 Boercher Lane West Berne, NY 12191
	Wetland #G-18	
J. Beretz, Jr.		Rt. 443 West Berne, NY 12191
N. R. Flesh c/o G. Swint		136 Elm Avenue Delmar, NY 12054
	Wetland #RE-2	
Maver Becker		R.D. 1 Switzkill Road Berne, NY 12023
	Wetland #RE-3	
Frank Becker		R.D. 1, Box 273 New Scotland Road Voorheesville, NY 12186
	Wetland #G-20	
P.& J. Primiano		P. O. Box 40 Berne, NY 12023
A. & E. Yarmchuk		2178 Helderberg Trail Berne, NY 12023

M.&.K. Johnson		4764 Berne-Altamont Rd. Berne, NY 12023
Berne Conservation Club		Berne, NY 12023
	Wetland #RE-4	
E. &. P. Wescott		4289 Sickle Hill Road Berne, NY 12023
	Wetland #RE-8	
W. Swart		Sickle Hill Road Berne, NY 12023
R. &. K. Kent		Sickle Hill Road Berne, NY 12023
Marvin Becker		4782 Switzkill Road Berne, NY 12023
	Wetland #RE-10	
New York State		DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167
	Wetland #RE-12	
NYS		DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167
	Wetland #RE-15	
NYS		DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167
D. Cosentino		7 King Street Pleasantville, NY 10570

Wetland #RE-21

Wetland #RE-19

E .&. M. Godwin	435 Contant Avenue Haworth, NJ 07641
NYS	DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167

Wetland #RE-50

P. &. H. Bensen	Box 960 Mansfield, Tenn. 38236
NYS	DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167

Wetland # RE-18 & 17

NYS	DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167
A. &. E. Falco	238 Ward Avenue Staten Island, NY 10304

Wetland #RE-25

M.J . & E. Flanigan	7 Roscoe Drive East Northport Long Island, NY 11731
D. Holling	1432 43rd Street North Bergen, NJ 07047

Wetland #RE-51

B. McNamara & L. Searles	20 Knorr Avenue Seymour, CT 06483

Wetland #RE-47

NYS	DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167

Wetland #W-65

J. &. K. Baitsholts	R.F.D. Box 126 Berne, NY 12023

Wetland #W-10

E. Bushnell	3336 Switzkill Road Berne, NY 12023

Wetland #W-49

J. Remley (Frank Remley)	Westerlo, NY 12193
Pleasure Crest Corporation	Woodstock Road E. Berne, NY 12059

Wetland #W-7

Pleasure Crest Corporation	Woodstock Road E. Berne, NY 12059

Wetland #W-16

F. Remley	R.D. Grippy Road Westerlo, NY 12193
M. Cook	Box 226 Clarksville, NY 12041

Wetland #W-12

M. C. Pangburn	R.F.D. Smoky Hollow Road East Berne, NY 12059

Wetland #W-11

C. Pangburn	R.F.D. Smoky Hollow Road East Berne, NY 12059
Camp Givah	600 New Scotland Avenue Albany, NY 12208
S. &. D. Belardo	70 Cascade Terrace Schenectady, NY 12309

Wetland #W-13

J. B. Crocker	R. F. D. Voorheesville, NY 12186

Wetland #W-5

R. Stempel	Stempel Lane East Berne, NY 12059
A. Miller	Clipp Road Delmar, NY 12054
J. &. C. Haluska	2487 Helderberg Trail East Berne, NY 12059
C. &. K. Barber	Stage Road East Berne, NY 12059

Wetland #W-47

P. &. E. Giebitz	E. Berne, NY 12059
J. Willsie	E. Berne, NY 12059

Wetland #W-8

K. & N. Mabie	Box 84 Remley Lane Westerlo, NY 12193

Wetland #W-6

NYS	DEC Region 4 Rt. 10 (Jefferson Road) Stanford, NY 12167
R. &. R. VonHaugg	Willsie Road E. Berne, NY 12059

Wetland #W-1

L. Walker	921 Mohawk Street Lewiston, NY 14092

Wetland #W-2

J. Golden, Sr.	R. F. D. Sawmill Road East Berne, NY 12059
R. Ricketts	R. F. D. Sawmill Road East Berne, NY 12059

Wetland #AL-37

J. Stempel, Jr.	R. F. D. Long Road East Berne, NY 12059
E. &. F. Wagner	Elm Drive East Berne, NY 12059
R. Betts	R. D. 1 East Berne, NY 12059
R. Raber, Jr.	R.F.D., E. Berne, NY 12059

Wetland # AL-28

B. &. C. Valle	R.F.D. 1 Box 102 5163 Thompson's Lake Rd. E. Berne, NY 12059

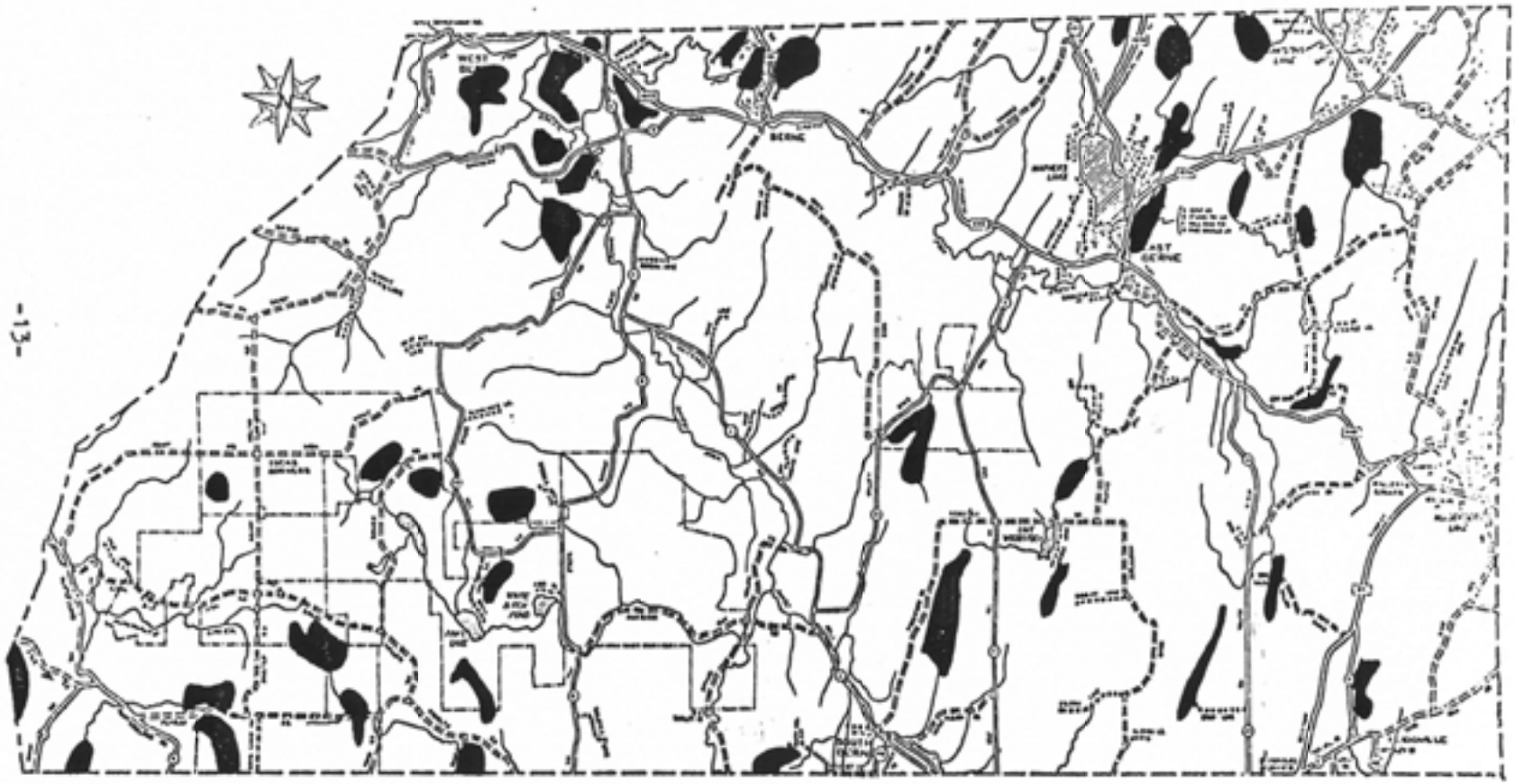
Wetland #AL-27

Dr. D. Burns	Box 19B East Berne, NY 12059

Wetland #AL-26

J. Palm	1 Dyre Dr. Jonesville Clifton Park, NY 12065
W. Brown	Rt. 156, Box B Altamont, NY 12009

Protected Wetlands, Town of Berne, N.Y.



Note: Solid areas indicate protected wetlands.

Wetlands, as the name implies, are areas which are covered with water during at least part of the year. Thus, the term wetland is a general one which includes marshes, shrub swamps, wet meadows and flooded woods.

Wetlands are essential for the replenishment of the underground water supplies as the vegetation slows down the rate of waterflow through the wetland allowing the water to be absorbed by the soil. An undisturbed vegetative cover is essential for this process to occur effectively.

Additionally, wetlands are complex ecosystems and a diversity of waterfowl, furbearers, and aquatic plants are dependent on this balanced ecosystem for their existence.

The problem with wetlands is that the ground they cover is also valuable for other purposes. When drained or filled, wetlands are sometimes used for home sites, resorts,highways and dumps.

The Town of Berne has 36 wetlands which are larger than 12.4 acres which protects them under Article 24 of the Environmental Conservation Law. Any alteration to the protected wetland requires a permit from the local issuing agent.

The Berne Town Clerk will have a set of official wetland maps on file for inspection by landowners who wish to determine if their property borders a protected wetland.

Applications for permits to alter existing wetlands, along with the appropriate instructions, will be available at the Town Clerk's office.

For more information on Town of Berne Wetlands call:

CHARLES EMMERICK
872-1608
TOWN OF BERNE
CONSERVATION ADVISORY COUNCIL

TOWN OF BERNE WETLANDS

INSTRUCTIONS

Wetland Inventory Field Data Sheet

CLASSIFICATION -- page 1

Name: Self-explanatory

Miles dir. from : Miles and compass direction from a recognizable map directi
Ex. 2 1/2 miles northwest of Celesteville, New York.

Topo Quad: Name(s) of topo quad(s) in which the wetland is found.

County: Self-explanatory

Town: Town(s), city or village(s).

Region: Department of Environmental Conservation region.

Natural/Artificial: Check one box to indicate whether the marsh is man-made or not.
Criterion: is an artificial impoundment responsible for the marsh's existe

Interspersion: Use the following code -

10 - Rich growth; emergents, submergents and water well interspersed.
9 - Rich growth; emergents, submergents and water well interspersed.
8 - Emergents and submergents well interspersed, some open water.
7 - Emergents and submergents well interspersed, some open water.
6 - Moderate interspersion, some open water.
5 - Moderate interspersion.
4 - Poor interspersion.
3 - Monospecific or open water or wet upland
2 - Monospecific or open water or wet upland
1 - Open water or wet upland

Vegetative Cover: % of wetland with vegetative cover in contrast to open water.

Area with 6"-24" depth: Fraction of whole wetland, in percent, which is estimated to be in the 6"-24" depth range.

WETLAND TYPES: Percent of whole wetland estimated to be in each USDI class. Abbreviated definitions of these classes are as follows (but see Shaw and Fredine, 1956, for fuller description):

Inland Fresh:

1. Seasonally flooded basins or flats - Extensive river floodplains, one foot or greater in spring.
2. Inland fresh meadows - Agricultural depressions and small stream floodplair up to 6 inches in spring.
3. Inland shallow fresh marshes - Up to 6 inches.
4. Inland deep fresh marshes - Up to 3 feet.
5. Inland open fresh water - Up to 10 feet; marshy border may be present.
6. Shrub swamps - Up to 6 inches.
7. Wooded swamps - Up to 1 foot.
8. Bogs - Shallow ponds may be present.

WETLAND INVENTORY FIELD DATA SHEET

CLASSIFICATION

N(_____

Miles _____ dir ____ from _____

Topo quad _____

County _____

Town _____

Region ____ Natural ☐ Artificial ☐

Interspersion ____ Veg. Cover _____%

6" – 24" depth ____%

WETLAND TYPES

Inland Fresh

1. Seasonally flooded basins/flats ____%
2. Fresh meadows ____%
3. Shallow fresh marshes ____%
4. Deep fresh marshes ____%
5. Open fresh water ____%
6. Shrub swamps ____%
7. Wooded swamps ____%
8. Bogs ____%

(al Fresh

12. Shallow fresh marshes ____%
13. Deep fresh marshes ____%
14. Open fresh water ____%

Coastal Saline

15. Salt flats ____%
16. Salt meadows ____%
18. Regularly flooded salt marshes ____%
19. Sounds and bays ____%

VEGETATIVE CLASSES

Trees

1. Live deciduous trees ____%
2. Live evergreen trees ____%
3. Dead trees ____%

Shrubs

1. Live deciduous trees ____%
2. Bushy shrubs ____%
- Low compact shrubs ____%
- Low sparce shrubs ____%

8. Aquatic shrubs ____%
9. Dead shrubs ____%

Emergents

10. Sub-shrubs ____%
11. Robust emergents ____%
12. Tall meadow emergents ____%
13. Short meadow emergents ____%
14. Narrow-leaved marsh emergents ____%
15. Broad-leaved marsh emergents ____%

Surface Vegetation

16. Floating-leaved vegetation ____%
17. Floating vegetation ____%

Submergents

18. Submergents ____%

******** ******** ********

If open water, proportion of submergents:

☐ 0-1/3 ☐ 1/3-2/3 ☐ 2/3-1

Meadow portion grazed

Purple loosestrife ☐ None ☐ Ind. plants

☐ Clumps ⅛m. diam. ☐ Clumps ⅛m. diam.

☐ Adjoining clumps through an area

☐ Solid, most of wetland

Green timber impoundment potential

☐ Nature or overmature trees ☐ Trees 80-100'

☐ 80% crown closure ☐ About 30" + muck

☐ Red, Swamp, Wh. Oak, Red Ash

☐ Understory: Sensitive Fern/Arrow Arum

ADDITIONAL COMMEN

Water

Total alkalinity (1) _____ (2) _____ (3) _____

(4) _____ (5) _____ (6) _____ (7) _____

(8) _____ (9) _____ (10) _____ mean: _____

Water Temp. (1) _____ (2) _____ (3) _____ (4) _____

(5) _____ (6) _____ (7) _____ (8) _____ (9) _____

☐ Not enough water to sample

Investigator _____

Title _____

Date: _____ Time: _____

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WETLAND INVENTORY FIELD DATA SHEET
INFLUENCES AND VALUES

H[illegible] influence — Min. Mod Maj.

_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐
_____ ☐☐☐

Prod. loss to degradation ____%

Source: _____

Vulnerability to destruction

low ____ medium ____ high

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Re[illegible]n for vulnerability classification

_____
_____
_____
_____
_____

Source: _____

Enhancement possibility

☐ low ☐ medium ☐ high

Work needed _____
_____
_____
_____
_____

Expected gain _____
_____

Source: _____

_____

Known ownership ☐ Federal ☐ State ☐ Local

Conservation Organization ☐ Sport ☐ Private

MISCELLANEOUS VALUES

Unique Geology ☐

Source:

Unique in Environs ☐

Source:

Flood Control ☐

Source:

Sediment Filtering ☐

Source:

Potential Use ☐

Source:

Aesthetic/Open Space ☐

Source:

Historical Value ☐

Source:

Migration Distribution
flight lane ☐

Source:

_____ ☐

WETLAND INVENTORY FIELD DATA SHEET
INFLUENCES AND VALUES

Known Vegetation

Species / Genus	occ	com	dom
	☐	☐	☐

Known Fish and Wildlife (p=production u=use)

Species / Genus	rare	com	abun
	☐	☐	☐

ADDITIONAL COMMENTS

* = rare unique vegetation, fish, wildlife
Reproduce this page to add more species

Source: _____ Date: _____

Investigator: _____ Title: _____