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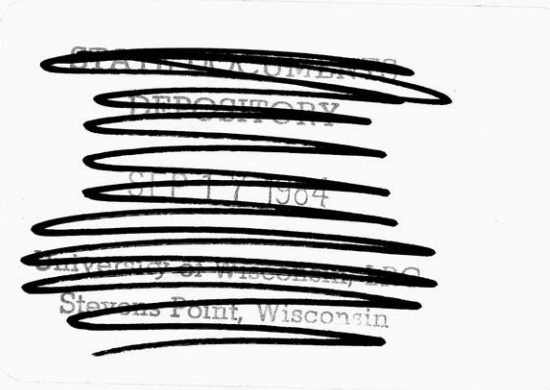


# SUPPLEMENTAL WETLANDS ASSESSMENT REPO
# CRANDON PROJECT

Prepared for

EXXON MINERALS COMPANY
Rhinelander, Wisconsin

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1982
v. 3

by
INTERDISCIPLINARY ENVIRONMENTAL PLANNING, INC.
Northborough, Massachusetts

August 1983

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# 1.0 INTRODUCTION

This wetlands evaluation is supplemental to the Wetlands Assessment Report, prepared by Normandeau Associates, Inc. (NAI) and Interdisciplinary Environmental Planning, Inc. (IEP) in August 1982 for Exxon Minerals Company. In the August 1982 wetlands assessment, 127 wetlands were analyzed in the 24.4 $km^2$ (9.4 square miles) study area shown on Figure 1.0-1. In this report the functions of 31 additional wetlands are assessed in accordance with Wisconsin Administrative Code NR 132.06(4). The field inventory was conducted by NAI and IEP, and the laboratory analysis procedures were performed by IEP using the same procedures and quality control described in the August 1982 Wetlands Assessment Report. The additional wetlands were located west and north of the original wetlands study area, as shown on Figure 1.0-1. To date, 158 wetlands have been assessed for the Crandon Project. The two wetland reports include assessments of all wetlands which could be impacted by the proposed Project facilities.

An updated composite map showing all of the 158 wetlands assessed to date is presented in Figure 1.0-2. The original Wetlands Assessment Report (NAI and IEP, 1982) contained Figures 4.3-1a through 4.3-1e which included the supplemental wetlands study area, but the supplemental wetlands were not mapped. The 31 supplemental wetlands have been added to the original figures and are presented in Figures 1.0-2a through 1.0-2f. The locations of the 31 supplemental wetlands are shown in detail on these

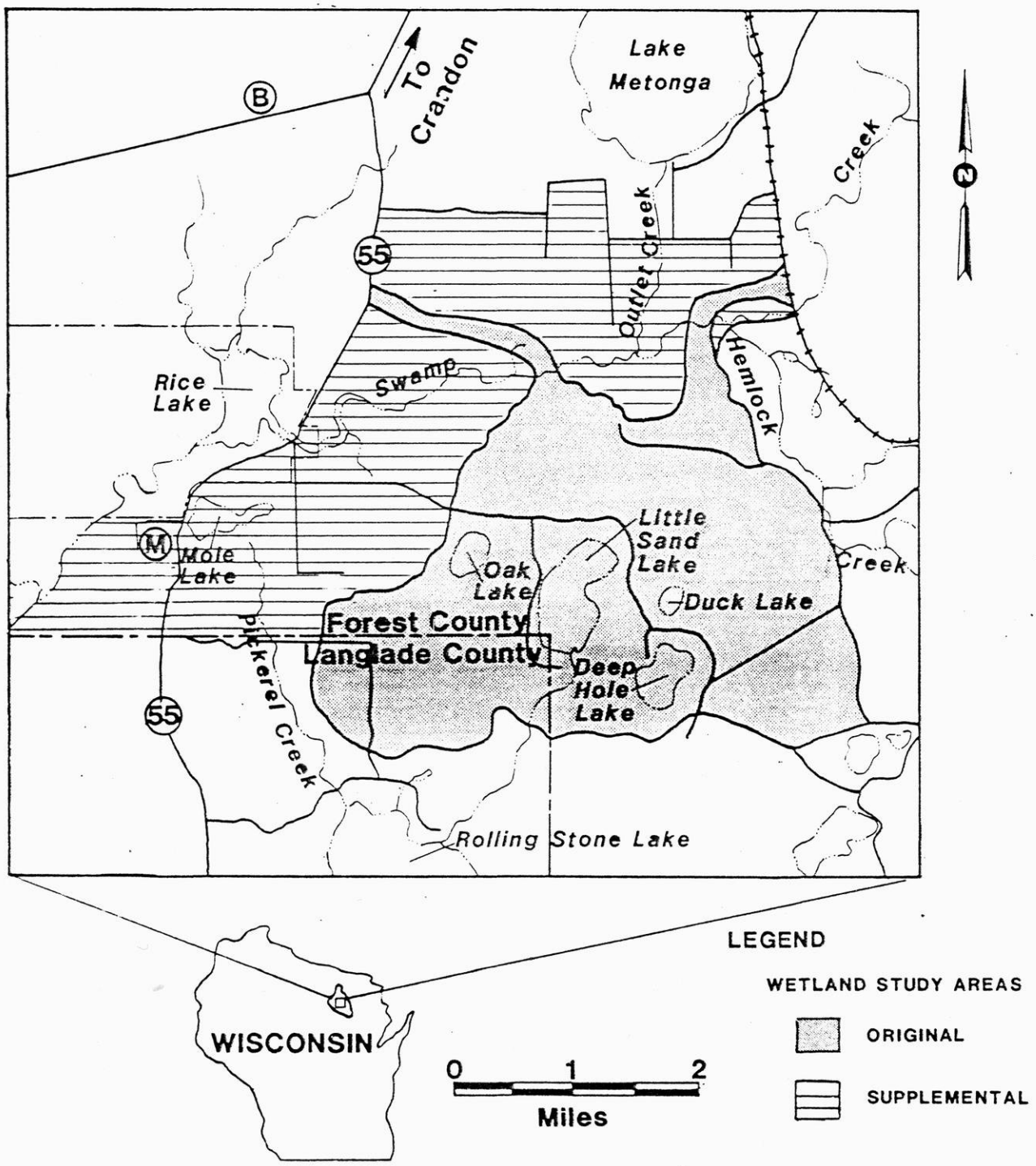


Figure 1.0-1. Wetlands assessment study areas for the proposed Crandon Project.

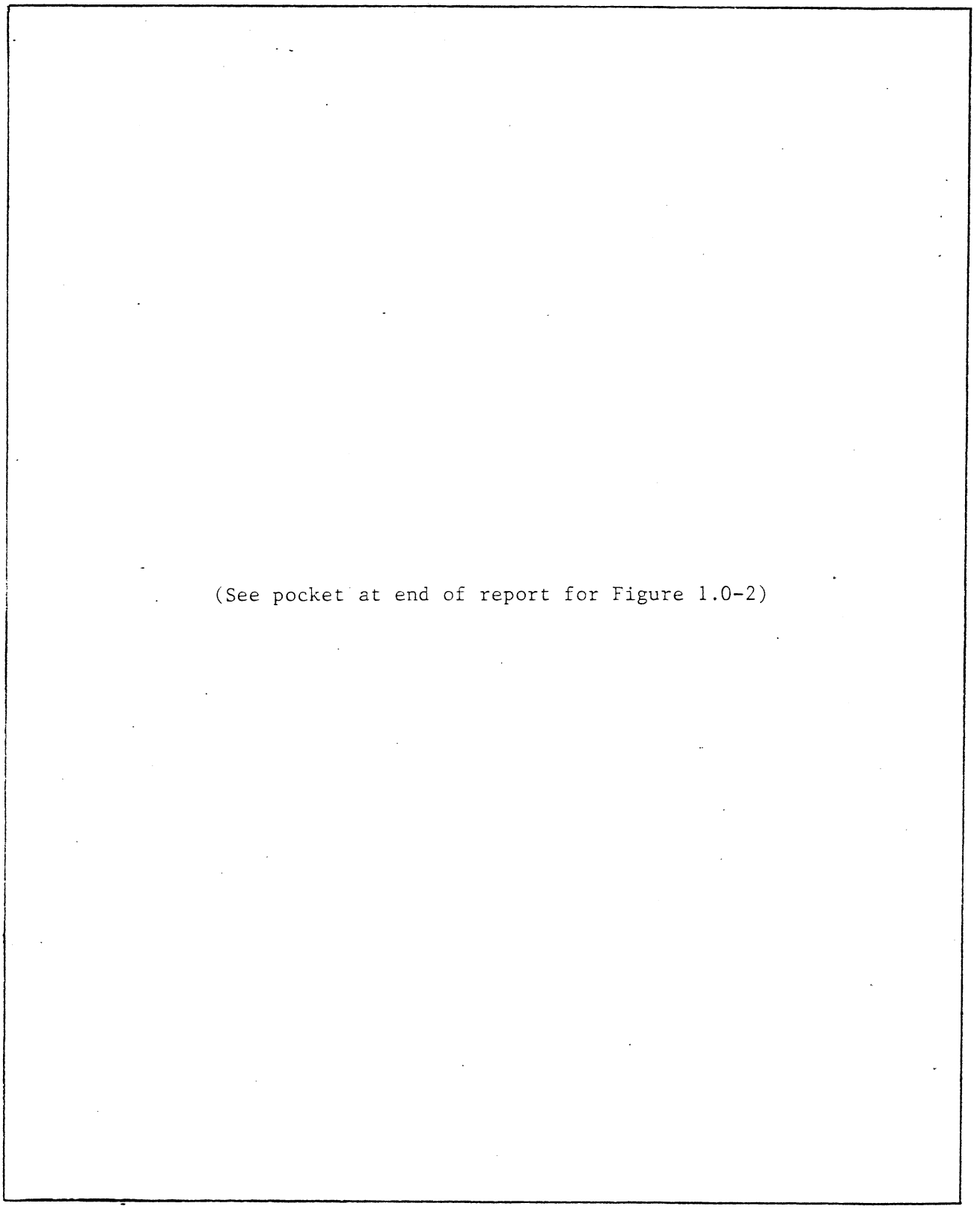


Figure 1.0-2. Composite wetland map showing all 158 assessed wetlands.

(See pockets at end of report for Figures 1.0-2a through 1.0-2f)

Figure 1.0-2a through 1.0-2f. Detailed maps showing watersheds and wetlands (Z) within the supplemental assessment area.

updated figures. The approximate locations of the 31 supplemental wetlands and their relationship to the proposed Crandon Project facilities are shown on Figures 1.0-3 through 1.0-5. Wetlands Z3, Z4, and Z5 are not shown on Figures 1.0-2, 1.0-3 or 1.0-4, but are shown on Figures 1.0-2a through 1.0-2f. These wetlands were assessed for the purpose of evaluating the water discharge pipeline, the railroad spur and access road alternative routes. These routes are located in areas not assessed in the August 1982 wetlands assessment (Figure 1.0-1).

Functional values of the wetlands were compared using a procedure which combined qualitative descriptions of the wetlands with a numerical model approach. The functional values of these 31 supplemental wetlands were also compared to those of the previously assessed 127 wetlands by comparing individual scores and model means. The 31 supplemental wetlands were also compared with the wetlands of the region by following the methods used in the August 1982 Wetlands Assessment Report.

FIGURE 1.0-3

LOCATION OF WETLANDS IN RELATION TO THE ACCESS ROAD CORRIDORS.

FIGURE 1.0-4

LOCATION OF WETLANDS IN RELATION TO THE RAILROAD SPUR CORRIDORS.

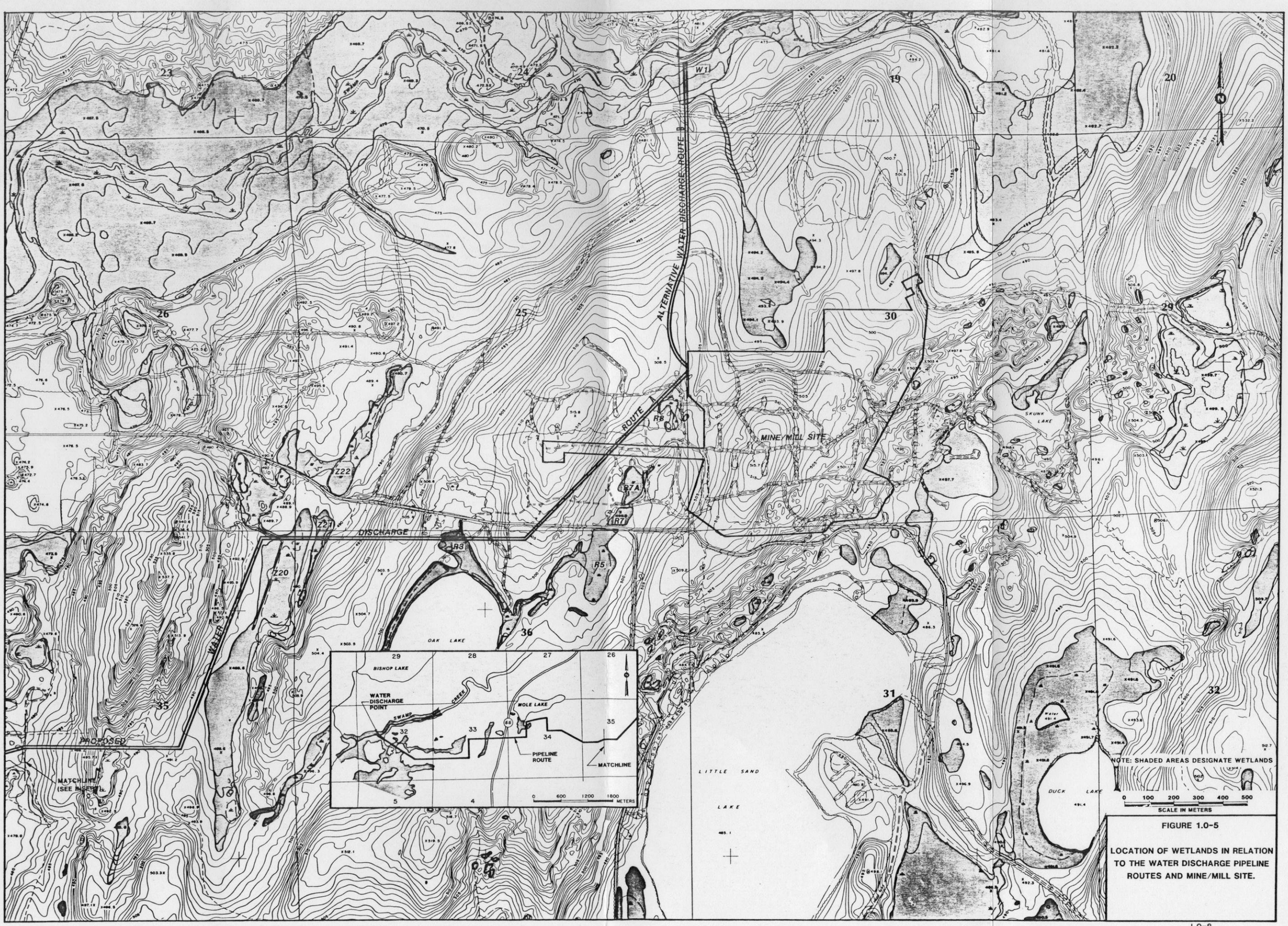


FIGURE 1.0-5

LOCATION OF WETLANDS IN RELATION TO THE WATER DISCHARGE PIPELINE ROUTES AND MINE/MILL SITE.

# 2.0 DESCRIPTION OF SUPPLEMENTAL WETLANDS STUDY AREA

## 2.1 PHYSICAL SETTING

The supplemental wetlands study area, as defined in this report, was located in northeastern Wisconsin in southern Forest County and northeastern Langlade County, near the center of the Wolf River watershed north of Langlade (Figure 2.1-1). This area is located north and west of the original wetlands study area utilized in the August 1982 wetlands assessment. The supplemental wetlands study area was approximately 10 km (6.2 miles) south of the City of Crandon and was approximately 23.0 $km^2$ (8.9 square miles) in size. Swamp Creek flowed through the center of the study area and State Highway 55 formed a large portion of the western boundary. The study area also extended west of State Highway 55 in the vicinity of Mole Lake which is located in the southwestern portion of the area. Thirty-one wetlands associated with proposed Crandon Project facilities were identified, mapped and assessed.

The surficial geology of the supplemental study area has been investigated and mapped by Simpkins et al. (1981) and consisted of glacial deposits of outwash sand and gravel. Recent swamp deposits consisting of peat were also identified (Simpkins et al., 1981). Exxon Minerals Company (1982) and Golder Associates (1982) also have described the surficial geology of the supplemental wetlands study area. A detailed description is presented in Appendix A, Surficial Geological History, of the Wetlands Assessment Report

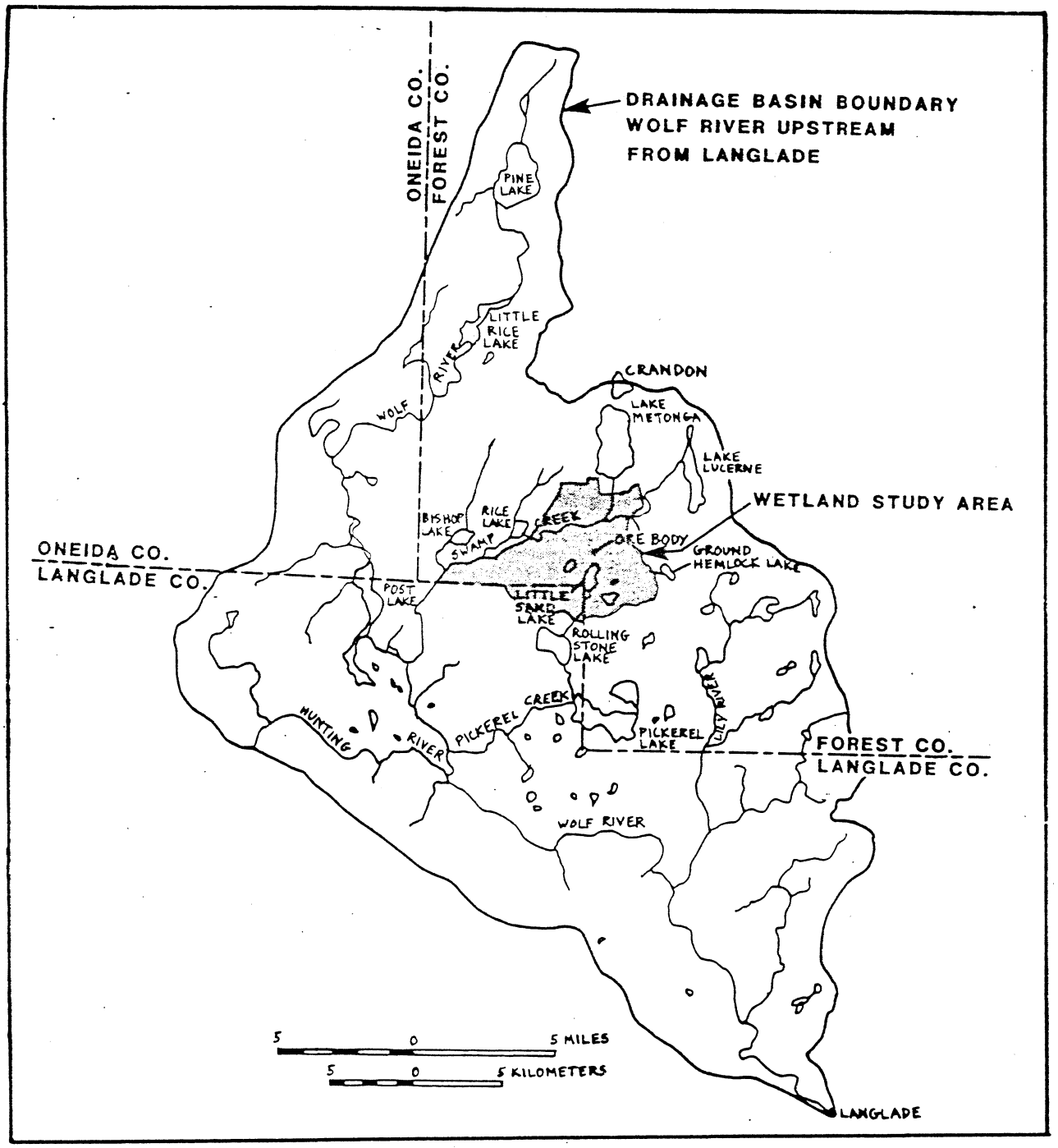


Figure 2.1-1. Regional area for the proposed Crandon Project wetlands assessment.

(NAI and IEP, 1982). In the sand and gravel outwash, wetlands were located in kettle holes and melt-water channels. These topographic features were formed approximately 11,000 years ago during deglaciation. Decay of vegetative debris in anaerobic conditions has created organic soils which, in some cases, have completely or partly filled past pond and lake environments.

Ground water hydrology was predominately influenced by the permeable sand and gravel. Based on water table data presented by Golder Associates (1982), 28 water table wetlands and three perched wetlands were identified among the 31 supplemental wetlands.

Surface water hydrology was controlled by an average annual rainfall of 78.7 cm (31 inches) which was distributed throughout the year (Exxon Minerals Company, 1982). The permeable outwash sand and gravel soils, nearly flat floodplain topography and numerous wetlands also influenced surface water hydrology. The upland and wetland areas were densely vegetated. These features resulted in a low rate of surface water runoff and a high rate of infiltration and ground water recharge. With the exception of wetlands associated with Swamp Creek, Outlet Creek, Hoffman Creek and Pickerel Creek, the water balances of the 28 water table wetlands were influenced by ground water discharge, whereas the water balances of the three perched wetlands were influenced by surface water runoff.

Wetlands were a common landscape feature of the supplemental wetlands study area, as a result of their glacial geologic origin. The

occurrence and abundance of wetlands were similar to what is present in the region (NAI and IEP, 1982).

## 2.2 VEGETATION

The study area was located in the northern conifer-hardwood forest (Curtis, 1959), which consisted of three distinct communities: northern mesic forest, northern xeric forest, and northern lowland forest. In the northern mesic forest, the dominant species are sugar maple (Acer saccharum), yellow birch (Betula lutea) and hemlock (Tsuga canadensis) The northern xeric forest is composed of two segments; a dry segment having jack pine (Pinus banksiana), red pine (Pinus resinosa) and white pine (Pinus strobus) as dominants; and the dry mesic segment dominated by white pine, red maple (Acer rubrum) and red oak (Quercus borealis). The northern lowland forest is also composed of two segments: a wet segment and a wet mesic segment. The wet segment includes the tamarack (Larix laricina) - black spruce (Picea mariana) bog forests and the white cedar (Thuja occidentalis) - balsam fir (Abies balsamea) coniferous swamps. The wet mesic segment of the northern lowland forest is dominated by the black ash (Fraxinus nigra) - yellow birch - hemlock hardwood swamps (Curtis, 1959).

Vegetative wetland types in the supplemental wetlands study area included bogs, shrub swamps, deciduous swamps, conifer swamps and marshes. Within a 8 km (5 mile) radius of the mine/mill site, conifer swamps were the most common wetland type and cover the most wetland area (Exxon Minerals Company, 1982). These conifer swamps were primarily composed of white cedar,

tamarack, steeplebush (Spiraea tomentosa), cottongrass (Eriophorum spissum), sedges (Carex spp.), pitcher plant (Sarracenia purpurea) and members of the heath family such as leatherleaf (Chamaedaphne calyculata), blueberry (Vaccinium angustifolium) and Labrador tea (Ledum groenlandicum) (Exxon Minerals Company, 1982).

Shrub swamps exist primarily along stream banks and in other lowland situations in the supplemental wetlands study area. The most prevalent species was speckled alder (Alnus rugosa). Occasional occurrence of red-osier dogwood (Cornus stolonifera), chokeberry (Aronia melanocarpa), shrub birch (Betula glandulosa), winterberry (Ilex verticillata), mountain holly (Nemopanthus mucronata) and willow (Salix sp.) has been noted (Exxon Minerals Company, 1982). Other small, non-woody wetland types, including marshes and aquatic beds, also exist throughout the supplemental wetlands study area (Exxon Minerals Company, 1982). These descriptions of wetland communities by Exxon Minerals Company (1982) were compatible with those provided by Curtis (1959).

## 2.3 WILDLIFE

Because of the variety of habitat types available, the supplemental wetlands study area had a diverse assemblage of herpetofauna, avifauna and mammalian species. Characteristics of each habitat type were discussed in the Wetlands Assessment Report, Section 3.3 (NAI and IEP, 1982). Quantitative field inventories of wildlife were not conducted for the supplemental wetlands. The composition and abundance of wildlife species in the supplemental wetlands were assumed to be similar to those recorded in the wetlands study area (NAI and IEP, 1982).

## 2.4 PROPOSED PROJECT FACILITIES WITHIN THE SUPPLEMENTAL WETLANDS STUDY AREA

Exxon proposes to develop an underground zinc-copper mine south of the supplemental wetlands study area. Ancillary facilities to the mine/mill site will cross and could impact selected supplemental wetlands. These facilities include the access road, railroad spur and water discharge pipeline. Figures 1.0-3 through 1.0-5 illustrate the relationship of the supplemental wetlands with the proposed and alternative facilities.

# 3.0 METHODS

## 3.1 WETLANDS CLASSIFICATION

The 31 supplemental wetlands were classified in the same manner as were those in the original wetlands study area by using the U.S. Fish and Wildlife Service national wetland classification system (Cowardin et al., 1979). Wetland types identified were Emergent Wetland, Scrub-Shrub Wetland and Forested Wetland, types previously found in the wetlands study area. Forested Wetland was divided into Broad-leaved Deciduous and Needle-leaved Evergreen. Scrub-Shrub Wetland was divided into Broad-leaved Deciduous and Broad-leaved Evergreen subtypes. The national classification system of wetlands was compared with that system used by the Wisconsin Department of Natural Resources (Wisconsin Department of Natural Resources, 1980) in Section 4.2 of the Wetlands Assessment Report (NAI and IEP, 1982). A brief description of the wetland types that occurred in the area of investigation follows.

The Needle-leaved Evergreen Wetlands (conifer swamps) were primarily composed of tamarack, black spruce and hemlock. On drier sites red maple and green ash (Fraxinus pennsylvanica var. subintegerrima) were also components of conifer swamps. The phytosociological characteristics of conifer swamps are summarized in Table 6.1-6 of the Wetlands Assessment Report (NAI and IEP, 1982).

The Broad-leaved Deciduous Wetlands (deciduous swamps) primarily consisted of red maple and green ash with occasional evergreen species. In general, the deciduous swamps were drier than the conifer swamps.

The Scrub-Shrub Broad-leaved Deciduous types (shrub swamps) primarily occurred along streams. The most prevalent species were speckled alder with white cedar, sedge (Carex trisperma), bunchberry (Cornus canadensis), and black spruce also being common.

Emergent wetlands (shallow fresh marshes) were dominated by cattail (Typha latifolia), bullrush (Scripus atrocinctus), sedge, black willow (Salix nigra), blue-joint grass (Calamagrostis canadensis) and rattlesnake grass (Glyceria canadensis). Slightly drier sites contained wool-grass (Scirpus cyperinus), arrow-leaved tearthumb (Polygonum sagittatum), sedges, bentgrass (Agrostis spp.), common smartweed (Polygonum hydropiper) and grasses. These wetlands occurred in shallow depressions in glacial outwash sand and gravel and were surrounded by abandoned and active pasture.

The scientific nomenclature for plants follows Fernald (1950).

## 3.2 WETLAND MAPPING

The supplemental wetlands were mapped in an identical manner to those of the August 1982 wetlands assessment (NAI and IEP, 1982). Each wetland larger than approximately 0.10 ha (0.25 acres) that could be directly impacted by a proposed activity was identified, numbered, inventoried and assessed following the procedures described in Section 4.3 of the Wetlands Assessment Report (NAI and IEP, 1982).

## 3.3 WETLANDS INVENTORY

The wetland inventory method developed and implemented in the August 1982 wetland assessment (NAI and IEP, 1982) was used to inventory the 31 supplemental wetlands. This method used the Wetland Inventory Reports (Appendix A) to inventory the natural resource elements that determine the wetland's ability to function for each of the 10 wetland functions defined in NR 132.06(4) of the Wisconsin Administrative Code. The 10 wetland functions were Biological, Hydrologic Support, Ground Water, Storm and Floodwater Storage, Shoreline Protection, Water Quality Maintenance, Cultural/Economic, Recreational, Aesthetic, and Educational.

Aerial photograph interpretations and the results of field inventories were used to complete the Wetland Inventory Reports for each of the 31 wetlands. This differed from the inventory procedure used for the August 1982 wetlands assessment in that more emphasis was placed on aerial photograph interpretation of wetland inventory elements, with field investigations being supplemental. This change in method was used since experience gained in the previous field investigations made aerial photograph interpretations more accurate. The August 1982 wetlands assessment (NAI and IEP, 1982) placed little emphasis on aerial photograph interpretation. The elements in the Wetland Inventory Reports were checked by a botanist and a geologist using aerial photograph interpretation. Those elements which could be positively identified from aerial photographs or the maps were checked in

the laboratory. Elements easily identified in the laboratory were topographic, geologic and hydrologic elements. Most ecological elements required field inspections for correct identification. Although conifer and deciduous swamps were easily identified on aerial photographs, bogs, shrub swamps and marshes had to be verified in the field. Since identification of all vegetative types could not be completed in the laboratory, other ecological elements such as wetland subclasses, class richness, subclass richness, vegetative species richness and vegetative density were also determined in the field. The field survey also yielded a more accurate and complete plant species list. The completed Wetland Inventory Reports are presented in Appendix A.

## 4.0 WETLANDS EVALUATION PROCEDURE

Several different methods and procedures have been employed to evaluate the functions of wetlands (Golet, 1979; Reppert and Sigleo, 1979; Schamberger et al., 1979). An analysis of the methodologies currently available to evaluate inland and coastal wetlands functions is presented in Lonard et al. (1981). The wetlands evaluation methods reported in the literature were examined to determine the system or systems that would provide information to fulfill the requirements of NR 132.06(4). Based on this review, an evaluation method using a qualitative description of wetlands and a semi-quantitative numerical model was used for this report.

In the descriptive evaluation, biological and hydrological characteristics of the 31 supplemental wetlands were characterized from field notes written for each wetland. These descriptions provided a basis for assessment of wetland functions using best professional judgement. Assessment criteria were used which, in the professional experience of the investigators, were readily estimated and reliable indicators of the wetland functions. Criteria included the amount of edge habitat and water cover ratio to define biological function and water storage and ground water recharge potential to define hydrological functions. The conditions that give rise to the functional characteristics were described and the functions were assessed for the 31 supplemental wetlands.

Wetland functions were also assessed based on a standardized field inventory procedure with specific input requirements for 10 functional models. Most of the model inputs required actual measurements from maps and aerial photographs either made in the laboratory or taken in the field. Only a few inputs required ratings based solely on professional judgement. The model elements were selected on the basis of an extensive literature review and field experience, and were modified to conform with the geographic locale of the regional study area. Results of the wetland functions assessment produced numerical scores for each of the 10 functional models for all 31 wetlands. A narrative discussion of these functional values as they pertain to specific wetland ecosystem characteristics was provided to supplement the numerical scores.

Absolute numerical values of a given wetland derived from model evaluations are exceedingly important when the scale of reference is broadened to include comparisons of other wetlands (Golet, 1979). However, Reppert and Sigleo (1979) caution that little assurance can be placed in evaluation methods permitting computation of absolute values of wetlands. They contend that absolute values are not comparable over broad geographic areas with different topographic and hydrologic systems. The usefulness of quantifying natural resource elements for decision making processes has long been recognized and has been commonly used (McHarg, 1969). In our study, the unnormalized scores for each of the 10 functional wetland models were summed for convenience, but the sum total provides a value of limited use per se.

The actual value of each wetland must be determined by weighing each functional element.

In addition to the actual values derived from the 10 functional models, the models were normalized within the range of 0 to 100. The biological model and combined hydrological models were each assigned 40 percent of the total and the socio-cultural models 20 percent. The socio-cultural functions were assigned a lower percentage because their values are manifestations of the basic biological and physical functions (Reppert and Sigleo, 1979). The individual functional models were normalized for comparative purposes.

Although many methods have been developed to evaluate wetlands (Richardson, 1981; Lonard et al., 1981), the general trend has been toward a numerical modeling approach using predominantly measurable biological and physical features of wetlands as evaluation criteria (Golet, 1979). During the assessment, wetlands were described and a numerical rating model was employed. The numerical model approach complemented the purely subjective descriptive evaluation procedure and added the following advantages: (1) there is higher repeatability of assigned values between observers and by the same observer over time; (2) there is less subjectivity in determining the overall value of a wetland and the use of standard procedures to collect data and compute scores; (3) there is an objective means of evaluating, documenting and comparing the functional values of a large number of wetlands; and (4) the results can be tabulated in a concise numerical form,

so the values can be readily compared by individuals with little experience in wetland ecology. In applying the modeling method, all wetlands were evaluated using criteria based on accepted principles.

# 5.0 RESULTS AND DISCUSSION

The study results and discussion are organized into four major topic areas: (1) qualitative wetland descriptions; (2) model results; (3) regional context evaluation; and (4) aquatic study areas, sanctuaries and refuges within the supplemental wetlands study area. The model approach, in contrast to the qualitative descriptions, is based on numerical value assignments to model elements and conditions and is, therefore, semi-quantitative in nature. Model data results for the 31 wetlands are presented in ascending numerical order with the unnormalized scores for the 10 models (see Table 5.2-1) and for the normalized scores (see Table 5.2-2). Section 5.3 contains an analysis of the data from the biological, watershed and socio-cultural models and of the total wetland scores. The regional context evaluation, presented in Section 5.4, relates the 31 supplemental wetlands to other wetlands in the region and serves as a basis for evaluating the wetland scores.

## 5.1 QUALITATIVE DESCRIPTIONS OF WETLANDS

The qualitative wetland descriptions consist of a discussion of the wetlands' biology, geology and hydrology. Table 5.1-1 summarizes the major elements used to describe and evaluate the supplemental wetlands.

Wetlands Z1, Z2 and Z5 - Wetlands Z1, Z2 and Z5 were predominantly shallow fresh marshes which were water table wetlands. Wetland Z1 was composed mainly of blue-joint grass, soft rush (Juncus effusus), rattlesnake grass and sedge (Carex atherodes). This wetland contained a small area of shrub swamp which consisted of leather-leaf and speckled alder. Wetland Z2 was dominated by sedge (Carex sp.) and also contained such species as willow-herb (Epilobium leptophyllum), rattlesnake grass, blue-joint grass and leather-leaf. Wetland Z5, also sedge dominated, was similar in species composition to Z2, but included small areas of shrubs such as bog laurel (Kalmia polifolia) and bog rosemary (Andromeda glaucophylla). The amount of edge and structural variability were moderate in wetland Z1 and low in wetlands Z2 and Z5. All three wetlands were surrounded by abandoned and active pastureland and were in close proximity to upland forest. Wetlands Z1 and Z2 were isolated, whereas wetland Z5 was within 30.4 m (100 feet) of a road. Based on the condition of the major determining factors, the potential for wildlife habitat was high in wetland Z1 and lower in wetlands Z2 and Z5. The potential for harvestable crops was absent in all three wetlands but the potential was favorable for other

Table 5.1-1. Summary of major elements used to describe and evaluate supplemental wetlands.

| | MAJOR ELEMENTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | DOMINANT WETLAND TYPE | AMOUNT OF EDGE | WATER/ COVER RATIO | SURROUNDING HABITAT VARIABILITY | % BORDERING OPEN WATER | RECHARGE POTENTIAL | WATER STORAGE | DISCHARGE TO DOWNSTREAM AQUATIC SYSTEMS | LIVING FILTER CAPACITY | SIZE |
| Z1 | SM[a] | Med | High | High | Low | High | High | Low | High | Large |
| Z2 | SM | Low | High | High | Low | High | High | Low | High | Large |
| Z3 | SM | Low | High | Med | Low | High | High | Low | High | Med |
| Z4 | SM | Low | High | Med | Low | High | High | Low | High | Med |
| Z5 | SM | Low | High | Med | Low | High | High | High | High | Large |
| Z6 | CS[b] | Med | High | High | Low | High | High | High | Med | Large |
| Z7 | DS[c] | Low | High | High | High | High | Med | High | Med | Med |
| Z8 | DS | Low | High | Med | High | High | Med | High | Med | Med |
| Z9 | CS | Med | High | Med | Med | High | High | High | High | Large |
| Z10 | DS | High | High | High | Low | High | High | High | High | Large |
| Z11 | CS | Low | High | Med | Low | High | High | High | High | Large |
| Z12 | SS[d] | Med | High | Med | Med | High | High | Low | High | Large |
| Z13 | SS | Med | High | Med | Low | High | High | Low | High | Med |
| Z14 | CS | High | High | High | Med | High | High | High | High | Large |
| Z15 | CS | Low | High | Med | Low | High | High | Low | High | Large |
| Z16 | CS | High | High | High | Low | High | High | Low | High | Large |
| Z17 | SM | High | Med | Med | Med | Med | High | High | High | Med |
| Z18 | DS | Med | Med | Med | Med | High | High | High | High | Large |
| Z19 | CS | Low | High | High | Low | High | High | High | Med | Med |
| Z20 | SM | High | High | Med | Low | Med | High | High | High | Large |
| Z21 | CS | Low | High | Med | Low | Med | High | Low | High | Large |
| Z22 | SM | High | High | Med | Low | Med | High | Med | High | Med |
| Z23 | CS | Low | High | Med | Med | High | High | High | High | Large |
| Z24 | SS | Med | High | High | Low | High | High | Low | High | Med |
| Z25 | B[e] | Med | High | High | Med | High | Med | High | High | Large |
| Z26 | B | Med | High | Med | Low | Med | High | Low | High | Med |
| Z27 | SS | Med | High | High | Med | High | High | Low | High | Med |
| Z28 | B | High | High | High | Low | High | High | Med | High | Large |
| Z29 | B | Med | High | Med | Med | High | High | Med | High | Large |
| Z30 | CS | High | High | Med | Low | High | High | High | High | Large |
| Z31 | SS | Med | High | Med | High | Med | High | High | High | Large |

[a] Shallow Marsh
[b] Coniferous Swamp
[c] Deciduous Swamp
[d] Shrub Swamp
[e] Bog

socio-cultural opportunities such as the economic (trapping), recreational (hunting), aesthetics and educational functions.

For the purpose of the Wetlands Assessment Report (NAI and IEP, 1982) and this report, timber was not considered a harvestable crop since all forested wetlands have some potential for lumber or firewood production. Only a detailed forestry products inventory would differentiate between wetland values for forest products. Harvestable crops are considered to be edible plants.

These water table wetlands had small surface watersheds and were more dependent upon ground water than surface water runoff for their occurrence. All three wetlands were located in kettle holes formed in glacial outwash, had no inlet or outlet and were not part of riparian systems. These isolated wetlands were considered to have low watershed functions.

Wetlands Z17, Z20 and Z22 - These wetlands were all predominantly shallow fresh marshes, but smaller components of deciduous swamp and shrub swamp, or open water were also present. Prominent species in wetland Z17 (Hoffman Pond) included rattlesnake grass, bulrush, wool-grass and sedge. In wetland Z20, the most abundant species were sedge (Carex atherodes) and blue-joint grass in the marsh portion and speckled alder, red maple and winterberry in the shrub swamp and wooded swamp portions. Species composition in wetland Z22 was similar to that of wetland Z20 and the open water portion of Z22 was dominated by species such as water-lily (Nymphaea

odorata) and bullhead lily (Nuphar variegatum). Structural variability and amount of edge were high, and these wetlands were primarily surrounded by deciduous forest. Wetland Z17 was isolated and Z20 and Z22 were each within 30.4 m (100 feet) of a road. Factors which were important in determining wildlife habitat suitability were favorable for all three wetlands. Wetland Z17 had potential for harvestable crops because of the presence of a small stand of wild rice (Zizania aquatica), whereas Z20 and Z22 lacked such potential. The potential for socio-cultural opportunities (hunting, fishing and trapping) was high for all three wetlands.

Hydrologically, Z20 and Z22 were perched wetlands and Z22 occurred in a closed basin while Z20 had an ephemeral outlet stream discharging to Z17. Wetland Z17 was a water table wetland located in a semi-closed basin with an ephemeral outlet to Z18. These wetlands were associated with watersheds that consisted of stratified sand and gravel. Wetlands Z17 and Z20 had high to moderate water balances. Wetlands Z17 and Z20 were part of a riparian system. Wetland Z22 was a perched wetland and had a low watershed value, whereas Z17, a water table wetland, had higher watershed functions.

Wetlands Z3 and Z4 - Wetlands Z3 and Z4 were marshes, with the former surrounded by pastureland, and the latter by deciduous forest. Wetland Z3 was dominated by wool-grass with smaller segments of arrow-leaved tearthumb and sedge (Carex sp.). In wetland Z4, plant species richness was much higher than in wetland Z3 and the dominant species was blue-joint grass,

with fewer numbers of species such as sedge, bentgrass, common smartweed and spike-rush (Eleocharis obtusa). Edge, structural variability and vegetative interspersion were all low and both wetlands were isolated. These factors contributed to the low potential for wildlife habitat and socio-cultural considerations. The potential for harvestable crops was absent.

Wetlands Z3 and Z4 occurred in small isolated kettle holes in stratified outwash sand and gravel. No inlets or outlets were observed and neither wetland was part of a riparian system. Wetlands Z3 and Z4 were water table wetlands and had small surface watersheds and their water balances were more dependent upon ground water than surface water runoff. These wetlands had low watershed functions.

Wetlands Z7 and Z8 - Wetlands Z7 and Z8 were both narrow strips bordering small ephemeral streams which consisted of deciduous swamp and shrub swamp. In wetland Z7, the most common species were speckled alder, blue-joint grass, wool-grass and rattlesnake grass. Wetland Z8 was dominated by speckled alder with red maple, jewelweed (Impatiens capensis), cleavers bedstraw (Galium sp.) and nettle (Urtica viridis) being less common. Structural variability, vegetative interspersion and amount of edge were low in both wetlands. These wetlands were surrounded by deciduous forest, and both were isolated. The major factors which were important in determining wildlife habitat suitability were generally absent. Potential

for harvestable crops was absent and potential for socio-cultural opportunities was low.

Wetlands Z7 and Z8 occurred in valleys and were part of riparian systems that were connected to wetland W2 and Swamp Creek. They were located in watersheds of stratified sand and gravel and were water table wetlands. These wetlands had lower water balances than the wetlands connected to Outlet Creek or Swamp Creek, and were fed by ground water discharge and surface water inflow. Wetlands Z7 and Z8 had moderate to low watershed value.

Wetlands Z10 and Z18 - Wetlands Z10 and Z18 (Hoffman Spring) were both predominantly deciduous swamps, but smaller components of shrub swamp and shallow marsh were also present in wetland Z10. A small area of open water was present in wetland Z18. Wetland Z10 contained an overstory dominated by green ash, quaking aspen (Populus tremuloides), willow and speckled alder. The understory included fly-honeysuckle (Lonicera canadensis), goldthread (Coptis groenlandica) and sphagnum (Sphagnum sp.) Species composition in the overstory of wetland Z18 was similar to that of Z10, but with a higher proportion of red maple. Understory species in this wetland included tall meadow rue (Thalictrum polygamum), sedge (Carex stricta), fowl-meadow grass (Glyceria striata) and dewberry (Rubus hispidus). Both wetlands were within 30.4 m (100 feet) of a road, and wetland Z10 was surrounded by abandoned pasture and deciduous forest, whereas wetland Z18 was surrounded only by deciduous forest. Vegetative interspersion, amount of edge and structural variability were high in wetland

Z10 and moderate in Z18. Based primarily on these factors, the potential for wildlife habitat was high in wetland Z10 and moderate in Z18. Neither wetland had potential for harvestable crops, but potential for socio-cultural opportunities was high. The open water area of Z18 contains trout and provides a recreational fishery.

Wetlands Z10 and Z18 were water table wetlands which occurred in watersheds consisting of stratified sand and gravel. They were part of riparian systems and the outlet of Z18 was perennial and that of Z10 was ephemeral. Of the two, Z18 had a higher water balance, but both were considered to have above average watershed functions in contrast to other supplemental wetlands.

Wetlands Z12 and Z13 - Wetlands Z12 and Z13 were both shrub swamps. Wetland Z12 was dominated by speckled alder and contained an understory of blue-joint grass, wool-grass, beggar-ticks (Bidens commata) and sphagnum. In wetland Z13, the most abundant species was speckled alder with lesser numbers of white cedar, balsam fir, and black spruce. The understory was composed of species such as sedge (Carex trisperma), fowl-meadow grass and wood reedgrass (Cinna arundinacea). Both wetlands were surrounded by mixed forest and were within 30.4 m (100 feet) of a road. Vegetative interspersion was high in both wetlands although structural variability was low. These factors indicated that there was a moderate potential for wildlife habitat and low potential for the socio-cultural values. Neither wetland contained harvestable crops.

Wetlands Z12 and Z13 occurred in watersheds composed of stratified sand and gravel and were water table wetlands. They were located in closed basins, were not part of riparian systems and did not contribute flow to other wetlands. The watershed functions of these wetlands were considered low.

Wetlands Z6, Z9, Z11, Z15 and Z16 - These wetlands were predominantly coniferous swamps that occurred in valleys which were tributary to Swamp Creek and were part of the Swamp Creek Deeryard. Wetlands Z6 and Z9 also contained smaller components of deciduous swamp, whereas a small area of shrub swamp was also present in wetland Z16. The predominant overstory species in these wetlands were balsam fir, white cedar and black spruce with fewer numbers of green ash, red maple, yellow birch, mountain maple (Acer spicatum) and quaking aspen. The most common species in the shrub layer were speckled alder and winterberry, and the herbaceous layer was composed of sedge (Carex trisperma), bunchberry, corn-lily (Clintonia borealis), goldthread and spagnum.

Wetlands Z6 and Z16 were both within 30.4 m (100 feet) of a road and were surrounded by deciduous forest and abandoned and active pasture. Wetlands Z9, Z11 and Z15 were surrounded by mixed forest. Wetland Z11 was within 30.4 m (100 feet) of a road and wetlands Z9 and Z15 were isolated. Structural variability, amount of edge and vegetative interspersion were high in wetland Z16, moderately high in wetlands Z6 and Z9, and low to moderate in wetlands Z11 and Z15. These wetlands generally provided favorable habitat

for wildlife. The potential for socio-cultural opportunities was high for wetlands Z6 and Z16, moderately high in wetlands Z11 and Z15, and low to moderate in wetland Z9. None of the wetlands had potential for supporting harvestable crops.

Wetlands Z6, Z9 and Z11 contained small ephemeral streams which flowed into and out of these three wetlands, but defined stream channels were not observed within the wetlands. Wetland Z15 did not contain an inlet or outlet and was hydrologically isolated from other wetlands. Wetland Z16 intermittently drains to the south through a culvert under Keith Siding Road to wetland T4. All five wetlands were water table wetlands which received ground water discharge for at least a portion of the year. All five wetlands occurred in valleys which were glacial melt-water channels cut into outwash sand and gravel. The watershed functions of these five wetlands were above average in comparison to other supplemental wetlands.

Wetland Z14 - Wetland Z14 bordered Outlet Creek, a perennial stream flowing from Lake Metonga to Swamp Creek. This wetland consisted primarily of coniferous swamp with a small component of shrub swamp bordering Outlet Creek. The major overstory species in this wetland were white cedar, balsam fir, black spruce and green ash. The shrub layer contained a predominance of speckled alder and jewelweed. Sensitive fern (Onoclea sensibilis) and cleavers bedstraw were most common in the herbaceous layer. Wetland Z14 was within 30.4 m (100 feet) of a road and was surrounded by mixed forest and abandoned pastureland. Structural variability, edge and interspersion were high, indicating high potential for wildlife habitat.

Potential for socio-cultural opportunities was also high, but there were no harvestable crops.

Wetland Z14 occurred in a glacial valley cut as a melt-water channel into the Swamp Creek outwash sand and gravel deposits. This wetland was a water table wetland which received inflowing ground water for most of the year. The wetland had a large water balance consisting of surface water discharge from Lake Metonga. The wetland's watershed functions were high because it was an intergal part of a large riparian system.

Wetland Z19 - Wetland Z19 (Hoffman Creek) was a coniferous swamp that discharged into Swamp Creek. The dominant plant species in the overstory were balsam fir, black spruce, quaking aspen and red maple. In the shrub layer, speckled alder was the predominant species, and the herbaceous layer was composed of a high proportion of jewelweed, wood reedgrass, goldthread and corn-lily. This isolated wetland was surrounded by abandoned and active pasture and deciduous forest. Vegetative interspersion, structural variability and amount of edge were low to moderate indicating the potential for wildlife habitat was moderate. This wetland had potential for harvestable crops because of the presence of watercress (Nasturtium officinale), and potential for socio-cultural opportunities (fishing) was high. Brook trout is a common species in Hoffman Creek (Exxon Minerals Company, 1982).

Wetland Z19 occurred in a semi-closed basin which contained a perennial stream flowing through it. This wetland occurred in an area of stratified sand and gravel and was a water table wetland with a relatively high water balance. This wetland had high watershed functions.

Wetland Z21 - Wetland Z21 was primarily a coniferous swamp which contained a small portion of deciduous swamp. The tree layer was dominated by balsam fir, black spruce, and red maple and the shrub layer by speckled alder, mountain holly and Labrador tea. The most common species in the herbaceous layer were wood reedgrass, cinnamon fern (Osmunda cinnamomea) and sphagnum. Wetland Z21 was within 30.4 m (100 feet) of a road and was surrounded by deciduous forest. Vegetative interspersion, structural variability and amount of edge within this wetland provided low to moderate wildlife habitat. Potential for socio-cultural opportunities was also moderate, and there was no potential for harvestable crops.

Wetland Z21, a perched wetland, occurred in an area underlain by stratified sand and gravel. This wetland was located in a closed basin and had no inlet or outlet and, as a result, had below average watershed functions in comparison to other supplemental wetlands.

Wetland Z23 - Wetland Z23 was primarily a coniferous swamp which was part of a much larger wetland that drained into Rolling Stone Lake. This wetland contained an overstory having a predominance of balsam fir, white cedar and green ash. Mountain maple was the most prominent species in the shrub layer with fewer numbers of speckled alder and skunk currant

(Ribes glandulosum). In the herbaceous layer goldthread, corn-lily, wood reedgrass and sedge (Carex trisperma) were predominant. This wetland was isolated and surrounded by mixed forest. Amount of edge, structural variability and interspersion were low to moderate. The condition of these factors, which are of primary importance in determining wildlife suitability, indicated low to moderate potential for wildlife habitat. Potential for socio-cultural considerations was moderate and potential for harvestable crops was absent.

Wetland Z23 formed the headwaters of Pickeral Creek. This water table wetland was located in a watershed consisting predominantly of stratified sand and gravel and it received ground water inflow for most of the year. Wetland Z23 had a high water balance and high watershed functions, since it contributed water to Pickeral Creek which flowed into Rolling Stone Lake.

Wetland Z24 - This wetland was a medium size (1.8 ha [4.4 acres]), moderately dense shrub swamp with an associated coniferous swamp. The shrub swamp was dominated by speckled alder, with American mountain-ash (Pyrus americana) and skunk currant also abundant. The herbaceous layer consisted primarily of white violet (Viola pallens) and Canada mayflower (Maianthemum canadense). The coniferous swamp component was dominated by black spruce with balsam fir also common. This wetland was surrounded by both mixed upland forest and open areas, and was accessible by road. Vegetative structure, the amount of edge, and life form variability within

this wetland provided favorble wildlife habitat and socio-cultural opportunities, although there was no known crop value.

Wetland Z24 was located in a semi-closed basin, a kettle hole formed in stratified sand and gravel, and was a water table wetland. The water balance of this wetland was controlled by ground water discharge and precipitation, since there were no inflowing or outflowing surface water streams. Wetland Z24 was isolated and not part of a riparian system and, therefore, had a low watershed value.

Wetland Z25 - Wetland Z25 was predominantly a large bog with an associated area of marsh and was connected to Mole Lake. Prominent plant species in the bog were leather-leaf and sphagnum, with bog-rosemary and bog-laurel also present. The marsh was dominated by tussock sedge with meadow-sweet (Spiraea latifolia) occurring in lower abundance. Wetland Z25 was surrounded by mixed upland forest and agricultural land, and had nearby road access from State Highway 55. Overall, life form variability, edge and interspersion of cover and water were favorable which was indicative of high wildlife habitat potential. Potential for harvestable crops was absent, but potential for the socio-cultural opportunities was high.

Wetland Z25 was originally part of Mole Lake which since deglaciation has filled with organic sedoments (>1.5 m [>5 feet] in thickness) and has become a vegetated wetland. Mole Lake and wetland Z25 occurred in a kettle hole formed in stratified sand and gravel. This wetland was connected to Mole Lake and its water balance was influenced by the lake

as well as the groundwater system and, thus the wetland had a large water balance. The hydrologic connection with Mole Lake contributed to this wetland's high watershed functions.

Wetland Z26 - This wetland was a medium-size (0.9 ha [2.2 acres]), moderately dense bog with scattered trees of tamarack, black spruce, white pine and red maple. The shrub layer was dominated by leather-leaf, with speckled alder and mountain-holly also abundant. Wetland Z26 was isolated, and was surrounded by mixed upland forest. Moderate structural diversity, edge and interspersion of water and cover contributed to the low to moderate potential for wildlife habitat and socio-cultural considerations. Potential for harvestable crops was absent.

Wetland Z26 occurred in a kettle hole on the south side of a streamlined hill (drumlin) consisting of a mixture of stratified sand and gravel and glacial till. The wetland was a water table wetland, but had neither an inlet nor an outlet and as a result, had a low water balance. It contained organic deposits over 1.5 m (5 feet) in thickness. Wetland Z26 had low watershed functions.

Wetland Z27 - Wetland Z27 was a medium-size (1.2 ha [2.9 acres]), dense shrub swamp dominated by silky willow (Salix sericea), with long-beaked willow (S. bebbiana) and trembling aspen also common. The herbaceous layer consisted primarily of sensitive fern. A small area of shallow marsh dominated by tussock sedge was also associated with this wetland. This wetland was surrounded by mixed upland forest and cropland, and

road access was nearby from State Highway 55. The edge characteristics and vegetative structure of this wetland provided moderate wildlife habitat and socio-cultural opportunities although there was no known crop value.

The wetland was located in a shallow depression (kettle hole) having no inlet nor outlet. Stratified sand and gavel underlie this water table wetland. The wetland was flooded with surface water as a result of the high seasonal water table. This wetland had a low water budget because of the lack of inflowing and outflowing surface water and had low watershed functions.

Wetland Z28 - This wetland was predominantly a large bog having associated areas of coniferous wooded swamp and shrub swamp. The bog was a floating mat consisting of leather-leaf and sphagnum, with Labrador tea and cottongrass also abundant. The coniferous swamp was dominated by black spruce and tamarack, and the shrub swamp contained speckled alder and swamp-birch (Betula pumila). Wetland Z28 was surrounded by both mixed upland forest and cropland, and road access was lacking. Vegetative structural variability, edge conditions and life form, provided high potential for wildlife habitat and moderate potential for socio-cultural considerations. There was no known crop value.

Wetland Z28 occurred in a north-south trending linear depression formed as either a kettle hole or melt water channel during deglaciation. The depression had no inlet, but an ephemeral outlet was present consisting of shallow ground water interflow to wetland Z30. An abandoned farm road and

fence line divided Z28 into two hydrologic parts, a northern portion consisting of a bog and a southern portion of coniferous swamp. The wetland was underlain by stratified sand and gravel and was a water table wetland. Because of its groundwater interflow hydrologic connection to Z30 and hence to Swamp Creek, wetland Z28 had favorable conditions for watershed functions.

Wetland Z29 - This wetland was a large bog having a floating mat of sphagnum and leather-leaf. Labrador tea, bog-laurel, cottongrass and tussock sedge were also abundant on the mat. Wetland Z29 was isolated and was surrounded by mixed upland forest. A moderate amount of edge, life form variability and interspersion contributed to moderate potential for wildlife habitat and socio-cultural considerations. Crop potential was absent.

Wetland Z29 was originally formed during deglaciation as a melt water channel, and eroded into a stratified sand and gravel outwash plain. This valley had intersected the water table and formed a wetland. No surface water streams flowed into the wetland, but the wetland had a poorly defined ephemeral surface water discharge to wetland Z30. Because of this surface water hydrologic connection, Z29 had favorable watershed functions.

Wetland Z30 - Wetland Z30 was large in area (780 ha [1925 acres]), only a portion of which occurred in the supplemental wetlands study area. Only that portion located in the study area was assessed. The wetland consisted of a large coniferous swamp with associated shrub swamp and shallow marsh. The swamp was composed primarily of black spruce, tamarack and balsam fir with goldthread and sphagnum in the ground layer. The shrub swamp

consisted primarily of speckled alder and willow, and the marsh was dominated by tussock sedge. This wetland was surrounded by mixed upland forest and was not accessible by road. Life form variability, edge conditions and interspersion were favorable and provided high potential for both wildlife habitat and socio-cultural considerations. Potential for harvestable crops was absent. Portions of this wetland had recently been logged.

This large wetland occurred in an area which during glaciation was a proglacial lake. Stratified sand and gravel outwash deposits were overlain by fine sand and silt glacio-lacustrine sediments. Organic swamp deposits overlay the glacio-lacustrine sediments. The wetland had a number of inlets including those from Z28 and Z29. It had multiple outlets to Swamp Creek and had favorable conditions for watershed functions.

Wetland Z31 - This wetland was a large shrub swamp bordering Swamp Creek. Speckled alder was the dominant species in the shrub layer, with bristly black currant (Ribes lacustre) and red osier dogwood also common. In the herbaceous layer, the primary species were marsh-marigold (Caltha palustris), sensitive fern and sphagnum. Wetland Z31 was surrounded by mixed upland forest, and had access by private road. Moderate life form variability of the vegetation, edge and interspersion contributed to moderate potential for wildlife habitat and socio-cultural considerations. There was no known crop value.

Since deglaciation, Swamp Creek has eroded into the stratified sand and gravel outwash deposits, and through meandering has created a

floodplain. Wetland Z31 is part of this floodplain. The water balance of Z31 is dominated by overbank flooding from Swamp Creek. A small stream from wetland Z30 also contributes to the wetland's water balance. The direct hydrologic relation with Swamp Creek gave rise to high watershed functions.

## 5.2 MODEL RESULTS FOR SUPPLEMENTAL WETLANDS

Modeling of the 10 wetland functions defined in NR 132.06(4) for the 31 supplemental wetlands was done using the function models developed and described in Appendix E of the Wetlands Assessment Report (NAI and IEP, 1982). Model data for the 31 supplemental wetlands are presented with the unnormalized scores for the 10 models in Table 5.2-1 and the normalized data in Table 5.2-2. Unnormalized data for the 127 previously assessed wetlands and the 31 supplemental wetlands are presented in Table 5.2-3. The unnormalized functional model results of the 10 wetlands ranked highest of those assessed are given in Table 5.2-4. Assessment of the supplemental wetlands indicated a program flaw which affected the unnormalized scores of a few of the previously assessed 127 wetlands. The affected values have been corrected and Tables 5.2-1, 5.2-2 and 5.2-3 contain the corrected scores.

### 5.2.1 Unnormalized Data

Each of the 10 functional models was designed to assess only a specific function. All models combined, not the value of a single model, must be used to define the total value of a wetland. Model ranges and means and the range of the actual scores for the supplemental wetlands are presented in Table 5.2-1. To combine and rank scores, these parameters were also totalled to yield a minimum and maximum overall score. The model

Table 5.2-1. Unnormalized results of 10 functional models for the supplemental wetlands.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| Z1 | SM | 97 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 10 | 486 |
| Z2 | SM | 90 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 7 | 476 |
| Z3 | SM | 74 | 12 | 57 | 100 | 0 | 77 | 35 | 36 | 35 | 7 | 433 |
| Z4 | SM | 71 | 12 | 57 | 98 | 0 | 73 | 27 | 18 | 19 | 7 | 382 |
| Z5 | SM | 92 | 52 | 56 | 103 | 0 | 79 | 49 | 48 | 38 | 15 | 532 |
| Z6 | CS | 95 | 58 | 61 | 103 | 0 | 75 | 57 | 42 | 34 | 18 | 543 |
| Z7 | DS | 79 | 41 | 56 | 72 | 7 | 51 | 19 | 25 | 19 | 7 | 376 |
| Z8 | DS | 77 | 46 | 52 | 78 | 7 | 57 | 19 | 25 | 19 | 7 | 387 |
| Z9 | CS | 102 | 52 | 59 | 95 | 19 | 70 | 51 | 38 | 28 | 10 | 524 |
| Z10 | DS | 101 | 48 | 56 | 103 | 0 | 71 | 53 | 39 | 37 | 21 | 529 |
| Z11 | CS | 88 | 47 | 56 | 97 | 0 | 65 | 57 | 42 | 31 | 15 | 498 |
| Z12 | SS | 87 | 16 | 60 | 106 | 0 | 81 | 45 | 35 | 27 | 15 | 472 |
| Z13 | SS | 82 | 12 | 57 | 102 | 0 | 77 | 37 | 31 | 27 | 15 | 440 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| Z15 | CS | 90 | 16 | 60 | 100 | 0 | 70 | 57 | 38 | 31 | 15 | 477 |
| Z16 | CS | 105 | 16 | 60 | 104 | 0 | 73 | 57 | 38 | 37 | 18 | 508 |
| Z17 | SM | 110 | 52 | 53 | 93 | 11 | 71 | 35 | 43 | 46 | 10 | 524 |
| Z18 | DS | 90 | 61 | 59 | 96 | 17 | 75 | 53 | 39 | 34 | 18 | 542 |
| Z19 | CS | 88 | 54 | 57 | 97 | 0 | 76 | 43 | 34 | 31 | 10 | 490 |
| Z20 | SM | 99 | 49 | 47 | 103 | 13 | 83 | 49 | 48 | 41 | 18 | 550 |
| Z21 | CS | 73 | 12 | 47 | 96 | 0 | 66 | 49 | 34 | 37 | 18 | 432 |
| Z22 | SM | 102 | 20 | 50 | 104 | 0 | 81 | 49 | 44 | 44 | 21 | 515 |
| Z23 | CS | 93 | 57 | 59 | 99 | 17 | 73 | 51 | 50 | 31 | 7 | 537 |
| Z24 | SS | 90 | 40 | 59 | 94 | 0 | 70 | 37 | 31 | 33 | 18 | 472 |
| Z25 | B | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| Z26 | B | 81 | 12 | 57 | 94 | 0 | 66 | 31 | 27 | 42 | 10 | 420 |
| Z27 | SS | 96 | 16 | 55 | 101 | 0 | 78 | 37 | 31 | 33 | 18 | 465 |
| Z28 | B | 106 | 47 | 56 | 99 | 0 | 68 | 39 | 31 | 45 | 13 | 504 |
| Z29 | B | 97 | 52 | 56 | 101 | 0 | 71 | 39 | 35 | 39 | 10 | 500 |
| Z30 | CS | 109 | 57 | 59 | 100 | 0 | 78 | 51 | 38 | 34 | 13 | 539 |
| Z31 | SS | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-770 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |
| Range (this report) | | 71-110 | 12-63 | 47-64 | 72-106 | 0-22 | 51-87 | 16-57 | 18-50 | 19-48 | 7-23 | 376-594 |
| Range (8/82 report) | | 44-131 | 6-65 | 27-64 | 56-108 | 0-29 | 33-89 | 11-57 | 20-64 | 16-50 | 7-23 | 259-602 |
| Score Mean (this report) | | 93 | 38 | 57 | 98 | 5 | 73 | 44 | 37 | 34 | 14 | 493 |
| Score Mean (8/82 report) | | 75 | 29 | 38 | 91 | 3.4 | 66 | 38 | 33 | 34 | 11 | 419 |

Table 5.2-2. Normalized results of the 10 functional models for the combined 158 wetlands.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| Z1 | SM | 21.20 | 1.12 | 5.60 | 6.16 | 0.00 | 5.60 | 3.50 | 2.45 | 2.30 | 0.90 | 48.83 |
| Z2 | SM | 18.80 | 1.12 | 5.60 | 6.16 | 0.00 | 5.60 | 3.50 | 2.45 | 2.30 | 0.00 | 45.53 |
| Z3 | SM | 14.00 | 0.64 | 5.12 | 5.76 | 0.00 | 5.28 | 2.60 | 2.15 | 2.30 | 0.00 | 37.85 |
| Z4 | SM | 13.20 | 0.64 | 5.12 | 5.60 | 0.00 | 4.88 | 1.75 | 1.31 | 0.90 | 0.00 | 33.40 |
| Z5 | SM | 19.60 | 4.96 | 4.96 | 6.08 | 0.00 | 5.44 | 4.15 | 3.11 | 2.55 | 2.35 | 53.20 |
| Z6 | CS | 20.60 | 5.60 | 5.76 | 6.08 | 0.00 | 5.04 | 5.00 | 2.60 | 2.20 | 3.25 | 56.16 |
| Z7 | DS | 15.60 | 3.76 | 4.96 | 3.52 | 0.00 | 2.96 | 0.85 | 1.25 | 0.90 | 0.00 | 33.80 |
| Z8 | DS | 14.80 | 4.40 | 4.48 | 4.00 | 0.00 | 3.36 | 0.85 | 1.25 | 0.90 | 0.00 | 34.04 |
| Z9 | CS | 22.80 | 4.96 | 5.44 | 5.36 | 3.68 | 4.64 | 4.35 | 2.30 | 1.65 | 0.90 | 56.08 |
| Z10 | DS | 22.40 | 4.56 | 4.96 | 6.08 | 0.00 | 4.72 | 4.55 | 2.38 | 2.45 | 4.15 | 56.25 |
| Z11 | CS | 18.40 | 4.40 | 4.96 | 5.52 | 0.00 | 4.16 | 5.00 | 2.60 | 1.95 | 2.35 | 47.34 |
| Z12 | SS | 18.00 | 1.12 | 5.60 | 6.32 | 0.00 | 5.60 | 3.70 | 2.07 | 1.60 | 2.35 | 38.67 |
| Z13 | SS | 16.40 | 0.64 | 5.12 | 6.00 | 0.00 | 5.28 | 2.85 | 1.70 | 1.60 | 2.35 | 37.24 |
| Z14 | CS | 24.80 | 5.84 | 5.60 | 4.96 | 0.00 | 4.64 | 5.00 | 2.60 | 2.45 | 3.25 | 62.18 |
| Z15 | CS | 18.80 | 1.12 | 5.60 | 5.76 | 3.04 | 4.64 | 5.00 | 2.30 | 1.95 | 2.35 | 46.51 |
| Z16 | CS | 23.60 | 1.12 | 5.60 | 6.16 | 0.00 | 4.88 | 5.00 | 2.30 | 2.45 | 3.25 | 54.36 |
| Z17 | SM | 25.20 | 4.96 | 4.64 | 5.20 | 0.00 | 4.72 | 2.60 | 2.70 | 3.25 | 0.90 | 53.21 |
| Z18 | DS | 18.80 | 6.00 | 5.44 | 5.44 | 1.04 | 5.04 | 4.55 | 2.38 | 2.20 | 3.25 | 56.14 |
| Z19 | CS | 18.40 | 5.28 | 5.12 | 5.52 | 3.04 | 5.12 | 3.50 | 1.95 | 1.95 | 0.90 | 47.74 |
| Z20 | SM | 21.60 | 4.64 | 3.76 | 6.08 | 0.00 | 5.76 | 4.15 | 3.20 | 2.80 | 3.25 | 56.92 |
| Z21 | CS | 13.60 | 0.64 | 3.76 | 5.44 | 1.68 | 4.24 | 4.15 | 1.95 | 2.45 | 3.25 | 39.48 |
| Z22 | SM | 22.80 | 1.52 | 4.24 | 6.16 | 0.00 | 5.60 | 4.15 | 2.78 | 3.10 | 4.15 | 54.50 |
| Z23 | CS | 20.00 | 5.52 | 5.44 | 5.68 | 0.00 | 4.88 | 4.35 | 3.23 | 1.95 | 0.00 | 55.09 |
| Z24 | SS | 18.80 | 3.68 | 5.44 | 5.28 | 3.04 | 4.64 | 2.85 | 1.70 | 2.10 | 3.25 | 47.74 |
| Z25 | B | 24.40 | 6.16 | 6.16 | 6.00 | 0.00 | 5.36 | 3.70 | 3.02 | 3.45 | 3.25 | 67.02 |
| Z26 | B | 16.00 | 0.64 | 5.12 | 5.28 | 5.52 | 4.24 | 2.15 | 1.11 | 2.90 | 0.90 | 38.34 |
| Z27 | SS | 21.00 | 1.12 | 4.80 | 5.92 | 0.00 | 5.36 | 2.85 | 1.70 | 2.10 | 3.25 | 46.10 |
| Z28 | B | 24.00 | 4.40 | 4.96 | 5.68 | 0.00 | 4.48 | 3.05 | 1.70 | 3.20 | 1.90 | 53.37 |
| Z29 | B | 21.20 | 4.96 | 4.96 | 5.92 | 0.00 | 4.72 | 3.05 | 2.07 | 2.65 | 0.90 | 50.23 |
| Z30 | CS | 19.20 | 5.46 | 5.44 | 5.76 | 0.00 | 5.36 | 4.35 | 2.30 | 2.20 | 1.90 | 51.97 |
| Z31 | SS | 21.20 | 6.32 | 5.28 | 6.08 | 3.68 | 6.08 | 4.35 | 3.02 | 2.40 | 4.75 | 63.16 |

SH-shallow marsh, SS-shrub swamp, DS-deciduous swamp, CS-conifer swamp, B-bog

Table 5.2-3. Unnormalized results of the 10 functional models for the combined 158 wetlands.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| A1 | SM[a] | 74 | 8 | 29 | 87 | 0 | 68 | 27 | 32 | 35 | 10 | 370 |
| A2 | CS[b] | 64 | 39 | 36 | 81 | 0 | 52 | 43 | 27 | 31 | 7 | 380 |
| A3 | DS[c] | 49 | 12 | 36 | 90 | 0 | 62 | 39 | 24 | 31 | 7 | 350 |
| B1 | SW[d] | 56 | 32 | 42 | 58 | 3 | 47 | 11 | 23 | 27 | 7 | 306 |
| B2* | CS | 96 | 53 | 45 | 97 | 0 | 80 | 51 | 40 | 28 | 10 | 500 |
| B3* | DS | 71 | 31 | 42 | 71 | 15 | 48 | 39 | 33 | 33 | 7 | 390 |
| B4* | CS | 92 | 48 | 33 | 99 | 0 | 68 | 51 | 40 | 31 | 10 | 472 |
| B5* | CS | 75 | 8 | 40 | 90 | 0 | 69 | 35 | 28 | 25 | 7 | 377 |
| B8* | DS | 58 | 8 | 38 | 79 | 0 | 63 | 31 | 25 | 33 | 7 | 342 |
| D1* | CS | 100 | 53 | 43 | 98 | 19 | 77 | 57 | 44 | 37 | 18 | 546 |
| D2 | SW | 48 | 22 | 39 | 57 | 3 | 33 | 11 | 26 | 31 | 7 | 277 |
| D3* | DS | 65 | 44 | 30 | 95 | 0 | 64 | 39 | 30 | 28 | 7 | 402 |
| D4* | CS | 92 | 47 | 31 | 100 | 0 | 69 | 51 | 40 | 31 | 10 | 471 |
| D4A* | DS | 61 | 12 | 32 | 95 | 0 | 67 | 39 | 26 | 28 | 7 | 367 |
| D5* | B[e] | 55 | 8 | 40 | 90 | 0 | 62 | 23 | 22 | 39 | 7 | 346 |
| D8* | DS | 57 | 8 | 31 | 86 | 0 | 58 | 31 | 25 | 33 | 7 | 336 |
| D18 | DS | 48 | 8 | 31 | 88 | 0 | 59 | 31 | 20 | 25 | 7 | 317 |
| F1 | SW | 83 | 41 | 54 | 61 | 5 | 55 | 27 | 37 | 31 | 10 | 404 |
| F2 | SM | 131 | 55 | 54 | 81 | 11 | 77 | 43 | 59 | 38 | 10 | 559 |
| F4 | CS | 97 | 52 | 41 | 95 | 19 | 72 | 43 | 42 | 28 | 10 | 499 |
| F5 | CS | 81 | 12 | 43 | 96 | 0 | 66 | 49 | 34 | 31 | 15 | 427 |
| F6 | SW | 56 | 44 | 35 | 77 | 5 | 60 | 11 | 20 | 19 | 7 | 334 |
| F7 | SM | 100 | 23 | 40 | 100 | 0 | 83 | 43 | 46 | 38 | 10 | 483 |
| F8 | DS | 60 | 8 | 38 | 84 | 0 | 62 | 31 | 22 | 31 | 10 | 346 |
| F9 | CS | 99 | 52 | 46 | 90 | 27 | 70 | 54 | 52 | 34 | 14 | 538 |
| F10* | CS | 101 | 57 | 45 | 103 | 29 | 76 | 51 | 50 | 28 | 10 | 550 |
| F11* | CS | 78 | 48 | 42 | 100 | 0 | 73 | 57 | 42 | 31 | 15 | 486 |
| F12 | SM | 107 | 20 | 46 | 104 | 18 | 81 | 43 | 52 | 32 | 10 | 513 |
| F13* | CS | 70 | 12 | 43 | 100 | 0 | 69 | 43 | 27 | 31 | 7 | 402 |
| F15 | DS | 96 | 19 | 46 | 98 | 0 | 67 | 53 | 37 | 37 | 18 | 471 |
| F16 | B | 79 | 16 | 46 | 104 | 0 | 70 | 45 | 37 | 48 | 18 | 463 |
| F17 | DS | 59 | 12 | 32 | 95 | 0 | 67 | 39 | 26 | 28 | 7 | 365 |
| F18 | CS | 96 | 53 | 46 | 99 | 0 | 77 | 51 | 38 | 31 | 10 | 501 |
| F19 | SM | 105 | 58 | 46 | 97 | 22 | 86 | 46 | 64 | 50 | 14 | 588 |
| F21 | SM | 100 | 53 | 40 | 95 | 22 | 83 | 41 | 56 | 44 | 18 | 552 |
| F22 | DS | 57 | 44 | 39 | 88 | 0 | 63 | 45 | 32 | 37 | 15 | 420 |
| F23* | SM | 104 | 62 | 44 | 106 | 22 | 89 | 43 | 56 | 38 | 10 | 574 |
| F24 | SW | 56 | 27 | 35 | 69 | 5 | 47 | 17 | 25 | 30 | 15 | 326 |
| F25* | DS | 70 | 45 | 31 | 97 | 0 | 71 | 45 | 32 | 40 | 18 | 449 |
| F26 | SW | 52 | 26 | 30 | 58 | 4 | 37 | 11 | 18 | 16 | 7 | 259 |
| F27* | DS | 57 | 44 | 30 | 91 | 0 | 61 | 45 | 32 | 40 | 18 | 418 |
| F28* | B | 110 | 61 | 43 | 103 | 21 | 74 | 39 | 46 | 47 | 10 | 554 |
| F29* | SS[f] | 95 | 44 | 29 | 96 | 0 | 77 | 31 | 31 | 27 | 10 | 440 |
| F30 | SW | 53 | 22 | 30 | 56 | 4 | 36 | 11 | 21 | 27 | 7 | 267 |

Table 5.2-3. (continued)

| WETLAND NO. | WETLAND TYPE | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F31* | CS | 83 | 48 | 31 | 98 | 0 | 69 | 51 | 38 | 34 | 10 | 462 |
| F32* | DS | 53 | 8 | 29 | 91 | 0 | 63 | 31 | 20 | 28 | 7 | 330 |
| F33 | DS | 52 | 39 | 32 | 82 | 0 | 54 | 39 | 26 | 28 | 7 | 359 |
| F34 | DS | 47 | 9 | 29 | 81 | 0 | 51 | 31 | 20 | 28 | 7 | 303 |
| F35 | CS | 82 | 12 | 34 | 100 | 0 | 69 | 49 | 34 | 34 | 15 | 429 |
| F36 | DS | 62 | 13 | 32 | 85 | 0 | 55 | 45 | 28 | 34 | 15 | 369 |
| F37 | SM | 121 | 65 | 47 | 98 | 20 | 86 | 46 | 61 | 38 | 14 | 596 |
| F38 | SW | 53 | 29 | 35 | 59 | 3 | 42 | 11 | 21 | 27 | 7 | 287 |
| F39 | SS | 89 | 49 | 41 | 102 | 0 | 84 | 39 | 35 | 21 | 7 | 467 |
| F40 | SM | 112 | 49 | 43 | 94 | 0 | 82 | 49 | 48 | 38 | 18 | 533 |
| F42 | SS | 65 | 8 | 38 | 91 | 0 | 70 | 23 | 23 | 32 | 7 | 357 |
| F43 | B | 64 | 12 | 43 | 98 | 0 | 69 | 31 | 24 | 36 | 7 | 384 |
| F45 | B | 69 | 8 | 40 | 90 | 0 | 62 | 23 | 20 | 39 | 10 | 361 |
| F46 | CS | 68 | 12 | 43 | 96 | 0 | 66 | 49 | 33 | 31 | 15 | 413 |
| F48 | CS | 62 | 8 | 40 | 96 | 0 | 65 | 35 | 25 | 25 | 7 | 363 |
| F50 | DS | 52 | 8 | 40 | 92 | 0 | 62 | 31 | 20 | 28 | 7 | 340 |
| F51 | DS | 55 | 8 | 40 | 84 | 0 | 57 | 31 | 26 | 37 | 7 | 345 |
| F52 | B | 82 | 13 | 44 | 103 | 0 | 73 | 31 | 31 | 39 | 10 | 426 |
| F53 | CS | 85 | 48 | 42 | 103 | 0 | 71 | 51 | 38 | 25 | 7 | 470 |
| F54 | B | 71 | 12 | 43 | 98 | 0 | 69 | 31 | 24 | 33 | 7 | 388 |
| F55 | DS | 53 | 8 | 38 | 83 | 0 | 58 | 31 | 26 | 40 | 7 | 344 |
| F57* | DS | 103 | 60 | 41 | 95 | 19 | 75 | 47 | 47 | 34 | 10 | 531 |
| F58 | SM | 79 | 8 | 38 | 82 | 0 | 69 | 33 | 39 | 49 | 18 | 415 |
| F60* | DS | 93 | 49 | 34 | 101 | 0 | 75 | 57 | 42 | 40 | 18 | 509 |
| F61* | DS | 58 | 37 | 29 | 84 | 0 | 59 | 45 | 32 | 31 | 15 | 390 |
| F62* | DS | 76 | 48 | 32 | 94 | 0 | 70 | 53 | 39 | 37 | 18 | 467 |
| F63* | CS | 90 | 53 | 34 | 101 | 0 | 75 | 51 | 38 | 31 | 10 | 483 |
| F64* | B | 78 | 53 | 34 | 99 | 0 | 75 | 39 | 35 | 39 | 7 | 459 |
| F65* | SS | 96 | 49 | 31 | 95 | 0 | 77 | 31 | 31 | 27 | 10 | 447 |
| F66* | CS | 94 | 48 | 33 | 99 | 0 | 68 | 51 | 38 | 31 | 10 | 472 |
| F69* | DS | 59 | 44 | 30 | 95 | 0 | 64 | 45 | 32 | 34 | 15 | 418 |
| F70* | DS | 73 | 15 | 32 | 93 | 0 | 64 | 39 | 27 | 28 | 10 | 381 |
| F72* | DS | 58 | 13 | 32 | 89 | 0 | 58 | 39 | 24 | 28 | 7 | 348 |
| F81* | AB[8] | 58 | 20 | 29 | 77 | 4 | 50 | 17 | 24 | 37 | 15 | 331 |
| F86 | DS | 53 | 8 | 38 | 97 | 0 | 63 | 37 | 24 | 34 | 15 | 369 |
| F87 | DS | 53 | 8 | 38 | 97 | 0 | 63 | 37 | 24 | 34 | 15 | 369 |
| F90 | AB | 52 | 20 | 42 | 73 | 3 | 50 | 17 | 24 | 37 | 15 | 333 |
| F114* | SM | 86 | 8 | 56 | 85 | 0 | 67 | 33 | 39 | 46 | 18 | 438 |
| F116 | CS | 58 | 8 | 48 | 96 | 0 | 65 | 35 | 23 | 28 | 7 | 368 |
| F119 | CS | 73 | 12 | 43 | 96 | 0 | 66 | 49 | 34 | 34 | 18 | 425 |
| F121 | CS | 53 | 8 | 40 | 92 | 0 | 62 | 31 | 20 | 25 | 7 | 338 |
| F122 | DS | 51 | 8 | 40 | 92 | 0 | 62 | 37 | 24 | 31 | 15 | 360 |
| F122A | SS | 75 | 8 | 40 | 88 | 0 | 66 | 29 | 30 | 44 | 18 | 398 |
| F125 | SS | 64 | 8 | 40 | 86 | 0 | 65 | 29 | 30 | 48 | 18 | 388 |
| F126 | SM | 67 | 12 | 43 | 102 | 0 | 74 | 35 | 33 | 32 | 7 | 405 |
| F127 | DS | 70 | 6 | 29 | 88 | 0 | 59 | 31 | 23 | 33 | 7 | 346 |

Table 5.2-3. (continued)

| WETLAND NO. | WETLAND TYPE | FUNCTIONAL MODELS | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | |
| G1 | DS | 51 | 8 | 40 | 92 | 0 | 62 | 31 | 22 | 28 | 7 | 341 |
| H1 | CS | 86 | 16 | 37 | 104 | 0 | 73 | 51 | 34 | 31 | 10 | 442 |
| I1 | DS | 75 | 8 | 38 | 89 | 0 | 62 | 37 | 30 | 42 | 18 | 399 |
| J1 | DS | 44 | 8 | 38 | 89 | 0 | 58 | 31 | 26 | 43 | 7 | 344 |
| K1 | SW | 64 | 22 | 30 | 59 | 6 | 42 | 17 | 22 | 28 | 18 | 308 |
| K2 | DS | 85 | 49 | 34 | 101 | 0 | 75 | 57 | 42 | 37 | 18 | 498 |
| K3 | CS | 77 | 48 | 31 | 102 | 0 | 72 | 57 | 42 | 34 | 15 | 478 |
| K4 | SS | 67 | 8 | 31 | 88 | 0 | 66 | 29 | 27 | 44 | 18 | 378 |
| K5 | B | 60 | 8 | 31 | 94 | 0 | 65 | 29 | 24 | 45 | 15 | 371 |
| M1 | SS | 67 | 45 | 28 | 90 | 0 | 81 | 29 | 32 | 33 | 15 | 420 |
| M2 | SW | 58 | 22 | 30 | 60 | 0 | 39 | 11 | 21 | 24 | 7 | 272 |
| M3* | DS | 73 | 44 | 28 | 98 | 0 | 68 | 39 | 31 | 31 | 10 | 422 |
| M4 | DS | 57 | 8 | 29 | 85 | 0 | 59 | 31 | 23 | 36 | 7 | 335 |
| M5 | CS | 81 | 44 | 30 | 95 | 0 | 64 | 49 | 38 | 37 | 18 | 456 |
| M6 | DS | 65 | 40 | 27 | 81 | 0 | 61 | 31 | 24 | 28 | 7 | 364 |
| N1 | SS | 79 | 8 | 38 | 91 | 0 | 74 | 29 | 30 | 44 | 18 | 411 |
| O1* | CS | 89 | 53 | 43 | 96 | 0 | 81 | 51 | 40 | 34 | 10 | 497 |
| O3 | DS | 65 | 44 | 37 | 100 | 0 | 65 | 45 | 34 | 37 | 15 | 442 |
| P1 | DS | 73 | 36 | 36 | 74 | 18 | 59 | 39 | 31 | 31 | 7 | 404 |
| P2* | CS | 85 | 48 | 33 | 103 | 0 | 71 | 51 | 38 | 31 | 7 | 467 |
| R1* | DS | 73 | 48 | 41 | 97 | 0 | 68 | 47 | 35 | 28 | 10 | 447 |
| R1A* | DS | 81 | 52 | 41 | 94 | 17 | 70 | 47 | 35 | 25 | 7 | 469 |
| R3 | SM | 116 | 61 | 41 | 96 | 11 | 81 | 46 | 61 | 41 | 14 | 568 |
| R5 | CS | 108 | 56 | 43 | 101 | 17 | 69 | 57 | 42 | 43 | 21 | 557 |
| R7 | DS | 62 | 44 | 37 | 100 | 0 | 65 | 45 | 32 | 37 | 15 | 437 |
| R7A | SS | 84 | 12 | 43 | 108 | 0 | 77 | 37 | 31 | 30 | 15 | 437 |
| R8* | SS | 74 | 12 | 34 | 102 | 0 | 77 | 37 | 31 | 30 | 15 | 412 |
| T1* | B | 72 | 12 | 53 | 94 | 0 | 66 | 37 | 28 | 45 | 15 | 422 |
| T2* | B | 93 | 12 | 53 | 98 | 0 | 69 | 37 | 31 | 42 | 18 | 453 |
| T3* | SS | 80 | 8 | 50 | 94 | 0 | 70 | 29 | 27 | 27 | 15 | 400 |
| T4* | CS | 118 | 65 | 62 | 96 | 17 | 84 | 54 | 55 | 37 | 14 | 602 |
| T5* | CS | 78 | 12 | 41 | 95 | 0 | 67 | 43 | 30 | 31 | 7 | 404 |
| W1* | CS | 101 | 59 | 64 | 99 | 19 | 79 | 51 | 42 | 31 | 10 | 555 |
| W2* | CS | 102 | 57 | 56 | 96 | 19 | 79 | 51 | 38 | 31 | 10 | 539 |
| X2 | DS | 68 | 8 | 29 | 89 | 0 | 62 | 31 | 23 | 33 | 7 | 350 |
| X3 | CS | 94 | 48 | 33 | 99 | 0 | 68 | 51 | 38 | 34 | 10 | 475 |
| X4 | SM | 64 | 8 | 29 | 95 | 0 | 74 | 27 | 29 | 35 | 7 | 368 |

Table 5.2-3. (continued)

| WETLAND NO. | WETLAND TYPE | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z1 | SM | 97 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 10 | 486 |
| Z2 | SM | 90 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 7 | 476 |
| Z3 | SM | 74 | 12 | 57 | 100 | 0 | 77 | 35 | 36 | 35 | 7 | 433 |
| Z4 | SM | 71 | 12 | 57 | 98 | 0 | 73 | 27 | 18 | 19 | 7 | 382 |
| Z5 | SM | 92 | 52 | 56 | 103 | 0 | 79 | 49 | 48 | 38 | 15 | 532 |
| Z6 | CS | 95 | 58 | 61 | 103 | 0 | 75 | 57 | 42 | 34 | 18 | 543 |
| Z7 | DS | 79 | 41 | 56 | 72 | 7 | 51 | 19 | 25 | 19 | 7 | 376 |
| Z8 | DS | 77 | 46 | 52 | 78 | 7 | 57 | 19 | 25 | 19 | 7 | 387 |
| Z9 | CS | 102 | 52 | 59 | 95 | 19 | 70 | 51 | 38 | 28 | 10 | 524 |
| Z10 | DS | 101 | 48 | 56 | 103 | 0 | 71 | 53 | 39 | 37 | 21 | 529 |
| Z11 | CS | 88 | 47 | 56 | 97 | 0 | 65 | 57 | 42 | 31 | 15 | 498 |
| Z12 | SS | 87 | 16 | 60 | 106 | 0 | 81 | 45 | 35 | 27 | 15 | 472 |
| Z13 | SS | 82 | 12 | 57 | 102 | 0 | 77 | 37 | 31 | 27 | 15 | 440 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| Z15 | CS | 90 | 16 | 60 | 100 | 0 | 70 | 57 | 38 | 31 | 15 | 477 |
| Z16 | CS | 105 | 16 | 60 | 104 | 0 | 73 | 57 | 38 | 37 | 18 | 508 |
| Z17 | SM | 110 | 52 | 53 | 93 | 11 | 71 | 35 | 43 | 46 | 10 | 524 |
| Z18 | DS | 90 | 61 | 59 | 96 | 17 | 75 | 53 | 39 | 34 | 18 | 542 |
| Z19 | CS | 88 | 54 | 57 | 97 | 0 | 76 | 43 | 34 | 31 | 10 | 490 |
| Z20 | SM | 99 | 49 | 47 | 103 | 13 | 83 | 49 | 48 | 41 | 18 | 550 |
| Z21 | CS | 73 | 12 | 47 | 96 | 0 | 66 | 49 | 34 | 37 | 18 | 432 |
| Z22 | SM | 102 | 20 | 50 | 104 | 0 | 81 | 49 | 44 | 44 | 21 | 515 |
| Z23 | CS | 93 | 57 | 59 | 99 | 17 | 73 | 51 | 50 | 31 | 7 | 537 |
| Z24 | SS | 90 | 40 | 59 | 94 | 0 | 70 | 37 | 31 | 33 | 18 | 472 |
| Z25 | B | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| Z26 | B | 81 | 12 | 57 | 94 | 0 | 66 | 31 | 27 | 42 | 10 | 420 |
| Z27 | SS | 96 | 16 | 55 | 101 | 0 | 78 | 37 | 31 | 33 | 18 | 465 |
| Z28 | B | 106 | 47 | 56 | 99 | 0 | 68 | 39 | 31 | 45 | 13 | 504 |
| Z29 | B | 97 | 52 | 56 | 101 | 0 | 71 | 39 | 35 | 39 | 10 | 500 |
| Z30 | CS | 109 | 57 | 59 | 100 | 0 | 78 | 51 | 38 | 34 | 13 | 539 |
| Z31 | SS | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| Score Range | | 44-131 | 6-65 | 27-64 | 56-108 | 0-29 | 33-89 | 11-57 | 18-64 | 16-50 | 7-23 | 259-602 |
| Score Mean | | 78.5 | 30.4 | 41.9 | 92.4 | 3.6 | 67.8 | 39.3 | 33.6 | 33.7 | 11.9 | 433.4 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-770 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |

[a]Shallow marsh; [b]Coniferous swamp; [c]Deciduous swamp; [d]Streamside wetland; [e]bog; [f]Shrub swamp; [g]Aquatic bed

*Wetlands of special interest

Table 5.2-4. Unnormalized results of the 10 functional models for the top 10 wetlands in the study area.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| T4 | CS[a] | 118 | 65 | 62 | 96 | 17 | 84 | 54 | 55 | 37 | 14 | 602 |
| F37 | SM[b] | 121 | 65 | 47 | 98 | 20 | 86 | 46 | 61 | 38 | 14 | 596 |
| Z25 | BC | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| F19 | SM | 105 | 58 | 46 | 97 | 22 | 86 | 46 | 64 | 50 | 14 | 588 |
| Z31 | SS[d] | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| F23 | SM | 104 | 62 | 44 | 106 | 22 | 89 | 43 | 56 | 38 | 10 | 574 |
| R3 | SM | 116 | 61 | 41 | 96 | 11 | 81 | 46 | 61 | 41 | 14 | 568 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| F2 | SM | 131 | 55 | 54 | 81 | 11 | 77 | 43 | 59 | 38 | 10 | 559 |
| R5 | CS | 108 | 56 | 43 | 101 | 17 | 69 | 57 | 42 | 43 | 21 | 557 |
| Score Range | | 44-131 | 6-65 | 27-64 | 56-108 | 0-29 | 33-89 | 11-57 | 18-64 | 16-50 | 7-23 | 259-602 |
| Score Mean | | 78.5 | 30.4 | 41.9 | 92.4 | 3.6 | 67.8 | 39.3 | 33.6 | 33.7 | 11.9 | 433.4 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-770 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |

[a]Conifer swamp; [b]Shallow marsh; [c]Bog; [d]Shrub swamp

parameters provided a basis for assessing wetlands data in a regional context (see Section 5.4), whereas the range of the actual scores of the supplemental wetlands will lend perspective to the assessment of these data. Because of the difference in model minima and maxima, contributions of the unnormalized scores to the total score were unequal. For example, five models were used to evaluate watershed function and only one was used for the biological function. The totals derived by combining unnormalized scores do not present an accurate impression of a wetland's total value. Therefore, the scores were normalized using the same procedure discussed in Appendix L of the August 1982 Wetlands Assessment Report (NAI and IEP, 1982).

### 5.2.2 Normalized Data

The data were normalized to equalize wetland functions (numerically) and to provide a more accurate assessment of their combined value. As in the August 1982 wetlands assessment, biological and hydrological functions were considered of equal importance and each was weighted 40 percent; the remaining 20 percent was divided equally among the cultural and economic, recreational, aesthetics and educational function models. The normalized model scores for individual supplemental wetlands and a total of all model scores for each wetland are presented in Table 5.2-2. Minima and maxima for the models and actual scores were not calculated because the assessment of data for each model was based on the unnormalized scores.

## 5.3 ANALYSIS OF MODEL RESULTS FOR SUPPLEMENTAL WETLANDS

The following analysis of model results is based on the model means so that comparisons can be made among the supplemental wetlands. This also will allow comparisons to be made with the 127 wetlands evaluated in the August 1982 wetlands assessment (NAI and IEP, 1982). Since the models were developed to assess wetland functions in the northern Wisconsin region, scores for the supplemental wetlands were assessed in a regional context by comparison to the model means.

### 5.3.1 Biological Function Model

The analysis of wetlands for the Biological Function Model showed an actual score range of 71-110, a model range of 29-158 and a model mean of 93 (Table 5.2-1). Of the 31 supplemental wetlands, 16 had scores equal to or greater than the model mean. Of these 16 wetlands, six (Z6, Z9, Z14, Z16, Z23, and Z30) were conifer swamps associated with Swamp Creek, Outlet Creek or Pickeral Creek. Four (Z1, Z17, Z20 and Z22) were marshes which reflects the high value for vegetative density and dominant vegetative type (i.e., primary production) assigned to marshes in the model (Appendix E, NAI and IEP, 1982). Wetland Z10 was the only deciduous swamp with a score above the mean. Three were bogs, two of which were connected to riparian systems (Z28 and Z29) and the third was connected to Mole Lake (Z25). Two others were shrub swamps (Z27 and Z31), reflecting the high value shrub

swamps have for bird habitat. These results are consistent with the trends in the functional value of wetland types reported in the August 1982 wetlands assessment (NAI and IEP, 1982).

### 5.3.2 Watershed Function Models

The watershed function consisted of five models: Hydrologic Support, Ground Water, Storm and Flood Water Storage, Shoreline Protection, and Water Quality Maintenance. Because these models are interrelated and contain many of the same elements, they were analyzed together in this section. This analysis was based on a model mean of 38 for the hydrologic support function, 44 for the ground water function, 77 for the storm and flood water storage function, 17 for the shoreline protection function and 58 for the water quality maintenance function (Table 5.2-1).

For the hydrologic support function, 18 wetlands had scores above or equal to the model mean (Table 5.2-1). They consisted of seven conifer swamps (Z6, Z9, Z11, Z14, Z19, Z23, and Z30), two marshes (Z5 and Z20), three bogs (Z25, Z28 and Z29), four deciduous swamps (Z7, Z8, Z10 and Z18) and two shrub swamps (Z24 and Z31), all of which were part of riparian systems tributary to or part of the Swamp Creek wetlands system, except Z23 which was tributary to Pickeral Creek and Z25 which was connected to Mole Lake. The percentage of wetlands with scores above the Hydrologic Support Model mean was higher for the supplemental wetlands than for the 127 wetlands included in the August 1982 wetlands assessment. This occurred because many of the supplemental wetlands were associated with large riparian systems and most of the previously assessed wetlands were either isolated or associated with small ephemeral streams.

Because 28 of the 31 wetlands were water table wetlands associated with a stratified sand and gravel aquifer, they had scores higher than the Ground Water Model mean (Table 5.2-1). Most of the 127 previously assessed wetlands scored below the model mean because they were perched wetlands associated with glacial till, were underlain by a low yield aquifer and functioned minimally to recharge ground water.

For the storm and flood water storage function, all the supplemental wetlands except Z7 scored above the model mean (Table 5.2-1). These wetlands were predominantly associated with the floodplain of Swamp Creek. They primarily occurred in the intermediate portion of the watershed, were flat and capable of storing large volumes of potential flood waters.

Six of the wetlands (Z9, Z14, Z18, Z23, Z25, and Z31) had a shoreline protection function equal to or above the model mean (Table 5.2-1). Five bordered or were tributary to Swamp Creek, Pickeral Creek or Outlet Creek and Z25 was connected to Mole Lake. They provided protection of the stream banks from erosion. The remaining 25 wetlands were not associated with a stream or lake.

All but two of the supplemental wetlands (Z7 and Z8) had scores above the model mean of 58 for the Water Quality Maintenance Model (Table 5.2-1). As with the other watershed functions, this occurred as a result of the wetlands' association with Swamp Creek, Outlet Creek, Pickeral Creek or Mole Lake. These wetlands were important in maintaining the water quality of those waterbodies with which they were associated.

### 5.3.3 Socio-Cultural Models

Data from the Cultural/Economic, Recreational, Aesthetics and Educational models were similar for most wetlands; therefore, the results from these models were combined under one heading. The analysis of the supplemental wetlands was based on the model mean of 34 for the cultural/economic function, 42 for the recreational function, 37 for the aesthetics function and 15 for the educational function.

Ten of the supplemental wetlands had scores equal to or above the model mean for the recreational function (Table 5.2-1). Twenty-seven had scores equal to or higher than the mean for the Cultural/Economic model and 12 for the Aesthetics model. These high scores for the cultural/economic function were attributed to the wetlands' association with Swamp Creek or Mole Lake and the high value given to bogs. Seventeen of the supplemental wetlands had a score equal to or higher than the mean for the Educational model.

Because many of the supplemental wetlands were associated with major waterbodies, the overall socio-cultural scores were higher than those of the majority of the wetlands included in the August 1982 wetlands assessment.

### 5.3.4 Combined Wetland Ranking

Twenty-four of the 31 supplemental wetlands had total scores higher than the model mean total score of 457 (Table 5.2-1). Only wetlands Z3, Z4, Z7, Z8, Z13, Z21 and Z26 had total scores below the model mean. Of these low scoring wetlands Z4, Z8, Z13, Z21 and Z26 were isolated and not part of riparian systems. Wetlands Z3 and Z4 occurred in kettle holes and were marshes. Wetland Z21 was a perched wetland. Wetlands Z7 and Z8 were deciduous swamps bordering small ephemeral streams (streamside wetlands). Wetland Z13 was a shrub swamp and wetland Z21 a relatively small (1.4 ha [3.5 acres]) isolated conifer swamp. Wetland Z26 was an isolated bog which occurred in a kettle hole.

The supplemental wetlands had a mean total actual score of 492, well above the previously assessed 127 wetlands' mean of 419 (NAI and IEP, 1982). The supplemental wetlands were assigned high values because they were mainly water table wetlands, had large water balances and were associated with riparian systems containing perennial streams, such as Swamp Creek.

## 5.4 REGIONAL CONTEXT EVALUATION

Most of the supplemental wetlands occurred in the lowlands of Swamp Creek and Outlet Creek and were located lower in their respective watersheds than were the majority of the wetlands included in the August 1982 wetlands assessment (NAI and IEP, 1982). Many of the wetlands in the original wetlands study area (see Figure 1.0-1) occurred as isolated basins or were at or near the headwaters of a riparian system. The majority of the supplemental wetlands were located in an intermediate position in their watershed where they provided an important function of controlling surface and ground water flows. The interaction of the vegetative communities of the supplemental wetlands with this large volume of water gave these wetlands more influence on surface water hydrology (quantity and quality) than did the majority of the 127 previously assessed wetlands.

To relate the supplemental wetlands to other wetlands observed in the region, the frequency of occurrence was determined for each wetland type as a percentage of those observed in the region (NAI and IEP, 1982). This provided an indication of the "regional scarcity" of the wetland types identified. Table 5.4-1 presents the results of this analysis.

The supplemental wetlands constituted 1.4 percent of the total area of wetlands estimated for the region. Of the vegetative types in the region, 20.2 percent (24,515 ha [60,655 acres]) were classified as wetlands and the 336.27 ha (830.05 acres) of supplemental wetlands represent only 0.27 percent of the total land area (121,967 ha [301,900 acres]) in the region.

Table 5.4-1. Regional scarcity expressed as the percentage of supplemental wetlands versus those in the region.

| WETLAND TYPE | AREA OF WETLANDS PHOTOTYPED IN THE REGION | | WETLANDS AS A PERCENTAGE OF THE TOTAL REGIONAL AREA | ESTIMATED AREA OF WETLANDS IN THE REGION | | ACREAGE OF SUPPLEMENTAL WETLANDS | | SUPPLEMENTAL WETLANDS AS A PERCENTAGE OF THE REGIONAL AREA WETLANDS |
|---|---|---|---|---|---|---|---|---|
| | Hectares | Acres | (Percent) | Hectares | Acres | Hectares | Acres | (Percent) |
| Shrub swamp | 1,650 | 4,084 | 3.3 | 4,081 | 10,083 | 25.23 | 62.34 | 0.6 |
| Bog | 786 | 1,947 | 1.6 | 1,939 | 4,800 | 84.55 | 208.92 | 4.4 |
| Aquatic bed | 129 | 320 | 0.3 | 317 | 785 | 0.47 | 1.16 | 0.1 |
| Deciduous swamp | 2,604 | 6,446 | 5.3 | 6,440 | 15,940 | 10.74 | 26.55 | 0.2 |
| Coniferous swamp | 4,228 | 10,467 | 8.6 | 10,453 | 25,873 | 189.66 | 468.66 | 1.8 |
| Marsh | 356 | 881 | 1.1 | 1,285 | 3,174 | 25.62 | 62.42 | 2.0 |
| Total | 9,753 | 24,145 | 20.2 | 24,515 | 60,655 | 336.27 | 830.05 | 1.4 |

Total land area of the region: 121,967 ha (301,900 acres).
Total land area in the supplemental wetlands study area: 2304.3 ha (5693.9 acres)

As documented in Section 6.5 of the August 1982 Wetlands Assessment Report (NAI and IEP, 1982), wetlands are a common part of the regional landscape forming approximately 20 percent of the total land area in the Wolf River drainage basin upstream from Langlade, Wisconsin. Conifer swamps were the most common wetland type followed by deciduous swamps, shrub swamps, bogs, marshes and aquatic beds. Analysis of the abundance of wetland types in the supplemental wetlands study area indicated a higher representation of bogs and a lower representation of deciduous swamp type than what was present in the overall region (Table 5.4-1).

## 6.0 AQUATIC STUDY AREAS, SANCTUARIES AND REFUGES

None of the Z wetlands were part of a federal or state designated wild river or state scientific area. Wetland Z23 occurred, in part, in Langlade County Forest Land in section 3 (T34N, R12E) and, in part in the State of Wisconsin land, also in section 3 (T34N, RI2E). All other Z wetlands occurred on private land. The State of Wisconsin owns the northeast corner of section 26 (T35N, RI2E) along Swamp Creek (wetland W1). The Swamp Creek Deeryard is located partially within the supplemental wetlands study area. This deeryard is approximately 6.4 km (4 miles) long and borders Swamp Creek and Hemlock Creek.

Important water resources in the supplemental wetland study area are Hoffman Creek, Outlet (Metonga) Creek, Hemlock Creek and Swamp Creek. These waterbodies are listed by the Wisconsin Department of Natural Resources as Class II trout streams.

The historic and cultural resources located in or adjacent to the supplemental wetlands study area have been described by Salzer and Birmingham (1978), Overstreet and Brazeau (1982) and MacDonald and Mack Partnership (1982). The aesthetic or scenic qualities of the area have been discussed by Exxon Minerals Company (1982).

# 7.0 QUALITY ASSURANCE

Quality assurance procedures defined in the Wetlands Assessment Report (NAI and IEP, 1982) were used for this report.

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# ERRATA

# FOR

# AUGUST 1983 SUPPLEMENTAL WETLANDS ASSESSMENT REPORT

# CRANDON PROJECT

Prepared For

Exxon Minerals Company

Rhinelander, Wisconsin

by

Interdisciplinary Environmental Planning, Inc.
Northborough, Massachusetts

August 1984

## INTRODUCTION

The following Errata Sheets are for the Supplemental Wetlands Assessment Report prepared by Interdisciplinary Environmental Planning, Inc. (IEP) in August 1983 for Exxon Minerals Company. This August 1983 wetlands evaluation is supplemental to the original Wetlands Assessment Report prepared by Normandeau Associates, Inc. (NAI) and IEP in August 1982. In the August 1982 Wetlands Assessment Report, 127 wetlands were analyzed. An additional 31 wetlands were assessed in the Supplemental Wetlands Assessment Report, therefore, a total of 158 wetlands were assessed for the Crandon Project.

As part of the wetlands assessment process, a field inventory was conducted by NAI and IEP and laboratory analysis was performed by IEP as described in the August 1982 Wetlands Assessment Report. The analysis included modeling of the 10 wetland functions defined in Wisconsin Administrative Code NR 132.06(4) for all 158 wetlands using the function models developed and described in Appendix E of the Wetlands Assessment Report (NAI and IEP, 1982).

In the fall of 1982, the Wisconsin Department of Natural Resources (DNR) conducted a review of the Supplemental Wetlands Assessment Report (IEP, 1983). The DNR review included field checking and model verification of a random sample of the 158 wetlands.

Specific concerns raised by the DNR were addressed at a meeting among representatives from the DNR, IEP, NAI and Exxon Minerals Company in January 1984. This meeting resulted in changes to eight of the Z wetland inventory reports and modifications to the August 1983 Supplemental Wetlands Assessment Report. Changes were also identified for ten of the A - X wetland inventory reports for the 1982 Wetlands Assessment Report. Based on the changes in the

inventory reports, new model scores were calculated for each of the above 18 wetlands. Revisions to the August 1983 Supplemental Wetlands Assessment Report (inventory reports, tables and text) as a result of these changes are identified on the following pages.

## WETLAND INVENTORY REPORTS

### Vegetative Species List

The following vegetative species changes on the wetland field inventory reports should be noted:

- Picea rubens (Red Spruce) changed to Picea sp. (Spruce).
- Kalmia augustifolia (Sheep Laurel) changed to Kalmia sp. (Laurel).
- Vaccinium corymbosum (Highbush Blueberry) changed to Vaccinium sp. (Blueberry).
- Quercus muehlenbergii (Chinquapin Oak) changed to Q. macrocarpa (Bur Oak).

### Wetlands Inventory Data

In addition, discrepancies were found in the field inventory data collected for 8 of the 31 supplemental wetlands. These discrepancies are discussed below and updated copies of the applicable Wetland Inventory Reports are attached which include these changes.

#### Wetland Z5

- The front page of the Wetland Inventory Report was changed so that the wetland would be correctly classified as 14.47 acres of shallow marsh.

#### Wetland Z6

- The designation for an ephemeral inlet to wetland Z6 from wetland Z5 was added. The inlet from wetland Z10 was removed.

#### Wetland Z9

- An additional perennial inlet was added and connects from wetland Z10.

#### Wetland Z10

- The receiving wetland for the ephemeral outlet discharge was changed to wetland Z9 rather than wetland Z6.

Errata Sheet - Submitted 8/9/84

Wetland Z16

- The "Topographic Configuration" was changed from a closed basin to a semi-closed basin.
- The "Dominant Hydrologic Type" was changed from Condition 6 to Condition 5.
- An ephemeral outlet from wetland Z16 was added. The wetland was previously listed as having no outlet.
- The presence of an outlet causes the wetland to be part of a riparian system in terms of its "Hydrologic Connection."

Wetland Z20

- A second ephemeral inlet was added and connects from wetland Z22.

Wetland Z22

- The "Topographic Configuration" was changed from a closed basin to a semi-closed basin.
- The "Dominant Hydrologic Type" was changed from Condition 6 to Condition 5.
- An ephemeral outlet from wetland Z22 to wetland Z20 was added. The wetland was previously listed as having no outlet.
- The presence of an outlet causes the wetland to be part of a riparian system in terms of its "Hydrologic Connection."

Wetland Z23

- Picea mariana (Black Spruce) was added to the vegetation list as a dominant species.
- Larix laricina (Tamarack) was added to the vegetation list as a dominant species.

The following Wetland Inventory Reports include the preceding changes and replace the Wetland Inventory Reports in Appendix A of the August 1983 Supplemental Wetlands Assessment Report.

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B

**WETLAND NUMBER** Z 5

**FLIGHT, PHOTO NUMBER(S)** 6-42

**MAP NUMBER(S)**

**ACREAGE** 19.48

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 14.47 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 0.48 | | WOODED SWAMP |
| | | BOG |
| 4.53 | | OTHER Open Water |
| 19.48 | | TOTAL |

Errata Sheet - Submitted 8/9/84

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex atherodes | | | ✓ |
| (Sedge) | | | |
| Chamaedaphne calyculata | | ✓ | |
| (Leather leaf) | | | |
| Salix sp. | ✓ | | |
| (Willow) | | | |
| Sphagnum sp. | | ✓ | |
| (Sphagnum Moss) | | | |
| Alnus rugosa | ✓ | | |
| (Speckled Alder) | | | |
| Larix laricina | ✓ | | |
| (Tamarack) | | | |
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | |
| Glyceria grandis | | ✓ | |
| (Reed-meadow Grass) | | | |
| G. canadensis | ✓ | | |
| (Rattlesnake-Grass) | | | |
| Scirpus cyperinus | ✓ | | |
| (Wool-grass) | | | |
| Andromeda glaucophylla | ✓ | | |
| (Bog-Rosemary) | | | |
| Kalmia polifolia | ✓ | | |
| (Bog-Laurel) | | | |
| Sarracenia purpurea | ✓ | | |
| (Pitcher plant) | | | |

## inventory

number 25

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- ■ Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- ■ 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- ■ 1

Vegetative Interspersion
- High
- ■ Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- <50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- <75% or <25 Scattered
- ■ 100% Cover; 75% or <25% Peripheral

Percent Open Water
- ■ 0-10%
- 34-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- ■ Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- ■ High

Vegetative Density
- ■ High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- ■ Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- ■ Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- ■ Slight 0-3%
- Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- ■ Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- ■ Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- ■ Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- ■ High Permeability
- Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- ■ Water Table wetland
- Water Table/Artesian Wetland
- Artesian wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- ■ Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- High
- ■ Low
- Vernal Pool

Groundwater Outflow
- Absent
- ■ Present

Inlet
- Absent
- ■ Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- ■ Present, to wetland 26
  - Perennial
  - ■ Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- ■ Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- ■ Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- <33%
- 34-66%
- 67-100%
- ■ Does not border

Legal Access
- Yes
- ■ No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ■ Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- ■ <1 person/acre (<320/mi²)
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- ■ 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z 6
**FLIGHT, PHOTO NUMBER(S)** 6-42

**MAP NUMBER(S)** _____

**ACREAGE** 44.17

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 44.17 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 44.17 | | TOTAL |

Errata Sheet - Submitted 8/9/84

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Fraxinus pennsylvanica | | ✓ | |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Acer rubrum | ✓ | | |
| (Red Maple) | | | |
| Betula lutea | ✓ | | |
| (Yellow Birch) | | | |
| Acer spicatum | | ✓ | |
| (Mountain Maple) | | | |
| Carex trisperma | | ✓ | |
| (Sedge) | | | |
| Coptis groenlandica | | ✓ | |
| (Goldthread) | | | |
| Glyceria striata | | ✓ | |
| (Fowl-meadow Grass) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |
| Ribes lacustre | ✓ | | |
| (Bristly Black Current) | | | |
| Alnus rugosa | ✓ | | |
| (Speckled Alder) | | | |
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Picea mariana | | ✓ | |
| (Black Spruce) | | | |
| Cornus canadensis | | ✓ | |
| (Bunchberry) | | | |

## inventory

number Z 6

date 8/18/82

field investigator(s)

D. Magee

water quality

wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Unmarazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

### Ecological Elements

Dominant wetland Class
- Stream or Brookside wetland
- Open Fresh water
- Open Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 3-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- <50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 75% or >25 Scattered
- 100% Cover; 75% or >25% Peripheral

Percent Open Water
- 0-30%
- 34-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

### Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

### Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

wetland Gradient
- Slight 0-3%
- Steep >3%

Surrounding Slopes
- Slight 0-3%
- Steep >3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

### Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

### Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland 25
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland Z7
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland Z8, 9
- Perennial
- Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- <33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

### Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- <1 Person/acre (<320/mi²)
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z 9
**FLIGHT, PHOTO NUMBER(S)** 6-42

**MAP NUMBER(S)** _____

**ACREAGE** 10.40

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 10.40 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 10.40 | | TOTAL |

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## vegetation

| | occ | com | dom |
|---|---|---|---|
| Acer rubrum (Red Maple) | | ✓ | |
| Fraxinus pennsylvanica var. subintegerrima (Green Ash) | | | ✓ |
| Abies balsamea (Balsam Fir) | | ✓ | |
| Betula lutea (Yellow Birch) | | ✓ | |
| Athyrium filix-femina (Lady Fern) | | ✓ | |
| Acer spicatum (Mountain Maple) | | ✓ | |
| Carex trisperma (Sedge) | | ✓ | |
| Clintonia borealis (Corn-Lily) | | ✓ | |
| Impatiens capensis (Jewelweed) | ✓ | | |
| Chrysosplenium americanum (Water-carpet) | ✓ | | |
| Alnus rugosa (Speckled Alder) | ✓ | | |
| Laportea canadensis (Wood-Nettle) | ✓ | | |
| Picea mariana (Black Mariana) | ✓ | | |
| Thuja occidentalis (Arbor Vitae) | ✓ | | |

## inventory

number Z 9

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Ungrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sapling
  - ☐ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ■ Deciduous
  - ☐ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ☐ Shrub Swamp
- ■ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ☐ 2
- ■ 1

Subclass Richness (Lateral Diversity)
- ☐ 10
- ☐ 6-9
- ☐ 4-5
- ■ 2-3
- ☐ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ☐ 90% of 2 or more of Listed Types
- ■ 50-90% of 1 or more; 90% of 1
- ☐ <50% of 1 or more of Listed Types

Cover Type
- ☐ 76-75% Scattered
- ☐ 24-75% Peripheral
- ☐ 75% or <25 Scattered
- ■ 100% Cover; 75% or <25% Peripheral

Percent Open Water
- ■ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ■ Medium
- ☐ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ■ High
- ☐ Moderate
- ☐ Low

Wetland Juxtaposition
- ■ Highly Favorable
- ☐ Moderately Favorable
- ☐ Unfavorable

**Special Elements**
- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

**Topographical Elements**

Topographic Configuration
- ☐ Closed Basin
- ☐ Semi-closed Basin
- ■ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ☐ Upper
- ■ Intermediate
- ☐ Lower

**Geological Elements**

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

**Hydrological Elements**

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High> 40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ■ Condition 4
- ☐ Condition 5
- ☐ Condition 6

Hydrologic Connection
- ☐ Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ☐ Absent
- ■ Present, from wetland Z 6
- ☐ Perennial
- ■ Ephemeral

Inlet
- ☐ Absent
- ■ Present, from wetland Z8
- ☐ Perennial
- ■ Ephemeral

Inlet
- ☐ Absent
- ■ Present, from wetland Z 10
- ☐ Perennial
- ■ Ephemeral

| | | |
|---|---|---|
| | | |
| | | |
| | | |

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z 10
**FLIGHT, PHOTO NUMBER(S)** 6-42

**MAP NUMBER(S)**

**ACREAGE** 20.72

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 3.11 | | SHALLOW MARSH |
| | | DEEP MARSH |
| 1.74 | | SHRUB SWAMP |
| 18.87 | | WOODED SWAMP |
| | | BOG |
| | | OTHER |
| 20.72 | | TOTAL |

Errata Sheet - Submitted 8/9/84

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Populus tremuloides | | ✓ | |
| (Quaking Aspen) | | | |
| Alnus rugosa | | ✓ | |
| (Speckled Alder) | | | |
| Scirpus cyperinus | | ✓ | |
| (Wool-grass) | | | |
| Salix sp. | | ✓ | |
| (Willow) | | | |
| Onoclea sensibilis | | ✓ | |
| (Sensitive Fern) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Fraxinus pennsylvanica | | ✓ | |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Nemopanthus mucronata | ✓ | | |
| (Mountain Holly) | | | |
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Acer spicatum | | ✓ | |
| (Mountain Maple) | | | |
| Ribes glandulosum | ✓ | | |
| (Skunk Currant) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |
| Trillium cernuum | ✓ | | |
| (Nodding Trillium) | | | |
| Picea mariana | ✓ | | |
| (Black Spruce) | | | |
| | | | |

## inventory

number Z 10

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Open Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Flowering-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

| | | | |
|---|---|---|---|
| Dryopteris disjuncta | ✓ | | |
| (Oak Fern) | | | |

## Ecological Elements

Dominant wetland Class
- Stream or Brookside wetland
- Open Fresh water
- Open Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 9-6
- 5-4
- 3-1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 30% of 2 or more of Listed Types
- 60-30% of 1 or more; 90% of 1
- 60% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 75% or 25% Scattered
- 100% Cover; 75% or 25% Peripheral

Percent Open Water
- 0-33%
- 34-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly favorable
- Moderately favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

| | | | |
|---|---|---|---|
| Carex trisperma | | ✓ | |
| (Sedge) | | | |
| Sphagnum sp. | | ✓ | |
| (Sphagnum Moss) | | | |
| Lonicera canadensis | | ✓ | |
| (Fly-Honeysuckle) | | | |
| Acer rubrum | ✓ | | |
| (Red Maple) | | | |
| Coptis groenlandica | | ✓ | |
| (Goldthread) | | | |

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table wetland
- Water Table/Artesian Wetland
- Artesian wetland

Transmissivity of Aquifer
- Low -10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High- 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland Z9
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open water
- <33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- [illegible] per/acre ([illegible]/mi²)
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z 16
**FLIGHT, PHOTO NUMBER(S)** 5-34

**MAP NUMBER(S)**

**ACREAGE** 32.54

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 12.92 | | SHRUB SWAMP |
| 18.00 | | WOODED SWAMP |
| | | BOG |
| 1.62 | | OTHER Open Water |
| 32.54 | | TOTAL |

Errata Sheet - Submitted 8/9/84

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Thuja occidentalis (Arbor Vitae) | ✓ | | |
| Picea Mariana (Black Spruce) | ✓ | | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Salix bebbiana (Long-beaked Willow) | | ✓ | |
| Lycopus virginicus (Water-Horehound) | ✓ | | |
| Scutellaria epilobiifolia (Common Skullcap) | ✓ | | |
| Carex spp. (Sedge) | ✓ | | |
| Bidens connata (Beggar-ticks) | | ✓ | |
| Larix laricina (Tamarack) | | | ✓ |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Ledum groenlandicum (Labrador tea) | | ✓ | |

## inventory

number Z 16

date 8/17/82

field investigator(s)

D. Magee

water quality

wetland Subclasses
Stream or Bankside wetland
Open Fresh Water
Vegetated Subclass
Non Vegetated Subclass
Open Fresh Marsh
Deep Emergent
Shrub
Sub-Shrub
Aquatic
Narrow-Leaved
Broad-Leaved
Shallow Fresh Marsh
Emergent
Narrow-Leaved
Broad-Leaved
Floating-Leaved
Flood Plain/Flats
Emergent
Shrubs and Trees
Wet Meadow
Unmanaged
Grazed
Shrub Swamp
Sapling
Bushy
Compact
Aquatic
Wooded Swamp
Deciduous
Evergreen
Bog
Shrub
Wooded

## Ecological Elements

Dominant wetland Class
Stream or Bankside wetland
Open Fresh Water
Open Fresh Marsh
Shallow Fresh Marsh
Seasonally Flooded Flood Plain
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog
Other
Wetland Class Richness
0
1
2
3
Subclass Richness (Lateral Diversity)
1.0
1.1-2.0
2.1-3.0
3.1-4.0
4.1+
Vegetative Interspersion
High
Moderate
Low
Surrounding Habitat
90% of 2 or more of Listed Types
50-90% of 1 or more; 90% of 1
50% of 1 or more of Listed Types
Cover Type
76-75% Scattered
26-75% Peripheral
75% or 75% Scattered
100% Cover; 75% or 75% Peripheral
Dominant Open Water
0-33%
34-66%
67-95%
96-100%
Vegetative Species Richness
Low
Medium
High
Proportion of Wildlife Food Plants
Low
Moderate
High
Vegetative Density
High
Moderate
Low
Wetland Juxtaposition
Highly Favorable
Moderately Favorable
Unfavorable

## Special Elements

Aquatic Study Area
Sanctuary or Refuge
Wildlife Management Area
Fisheries Management Area
Educational Study Area
Historical Area
Other

## Topographical Elements

Topographic Configuration
Closed Basin
Semi-Closed Basin
Valley
Hillside
Wetland Gradient
Slight 0-3%
Steep 3%
Surrounding Slopes
Slight 0-3%
Steep 3%
Topographic Position in Watershed
Upper
Intermediate
Lower

## Geological Elements

Surficial Material
Till
Stratified Sand and Gravel
Stratified Fine Sand and Silt
Alluvium
Bedrock
Igneous and Metamorphic
Sedimentary
Organic Material
Absent
High Permeability
Low Permeability

## Hydrological Elements

Hydrologic Position
Perched wetland
Water Table wetland
Water Table/Artesian Wetland
Artesian wetland
Transmissivity of Aquifer
Low <10,000 gal day/ft
Moderate 10,000 - 40,000 gal/day/ft
High 40,000 gal/day/ft
Dominant Hydrologic Type
Condition 1
Condition 2
Condition 3
Condition 4
Condition 5
Condition 6
Hydrologic Connection
Not Part of Riparian System
Part of Riparian System
Water Level Fluctuation
High
Low
Vernal Pool
Groundwater Outflow
Absent
Present
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Outlet
Absent
Present, to wetland T4
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Site
Large >4.6 acres
Medium 1.1-4.5
Small <1 acre
Surficial Geologic Material of watershed
Till
Stratified sand and gravel
Stratified fine sand and silt
Alluvium
Percent wetland Bordering Open Water
<33%
34-66%
67-100%
Does not border
Legal Access
Yes
No
Fetch
Over 2000 ft.
Under 2000 ft.
Depth of Lake
Deep >6 ft.
Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
Connected to a Small Stream
Connected to a River
Connected to a Lake
Connected to a Combination
Access to Public
Within 100 ft of Road
Access by Passable Waterway
Isolated
Surrounding Population Density
<1 person/acre (<320/mi²)
1.5 - 3.9 p/a (480-1220/mi²)
2 p/a (>1220/mi²)
Local Scarcity
<200 ft to nearest similar type
201 to 1000 ft to nearest similar type
>1000 ft to nearest similar type
Known Crop Value or Potential
None
Supports 1 family for part of year
Completely supports 1 family
Supports viable commercial interest

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z20
**FLIGHT, PHOTO NUMBER(S)** 6-44

**MAP NUMBER(S)** _____

**ACREAGE** 42.09

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 16.99 | | SHALLOW MARSH |
| | | DEEP MARSH |
| 4.41 | | SHRUB SWAMP |
| 15.86 | | WOODED SWAMP |
| 4.17 | | BOG |
| 0.66 | | OTHER Open Water |
| 42.09 | | TOTAL |

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## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex atherodes | | | X |
| (Sedge) | | | |
| Calamagrostis canadensis | | X | |
| (Blue-joint Grass) | | | |
| Glyceria canadensis | X | | |
| (Rattlesnake Grass) | | | |
| Alnus rugosa | | X | |
| (Speckled Alder) | | | |
| Chamaedaphne calyculata | X | | |
| (Leatherleaf) | | | |
| Andromeda glaucophylla | X | | |
| (Bog Rosemary) | | | |
| Epilobium glandulosum | X | | |
| (Willow-herb) | | | |
| Phalaris arundinacea | X | | |
| (Reed-Canary-Grass) | | | |
| Acer rubrum | | X | |
| (Red Maple) | | | |
| Ilex verticillata | | X | |
| (Winterberry) | | | |
| Populus tremuloides | | X | |
| (Quaking Aspen) | | | |
| Nemopanthus mucronata | X | | |
| (Mountain Holly) | | | |
| Poa palustris | X | | |
| (Fowl-meadow Grass) | | | |
| Amelanchier laevis | X | | |
| (Shadbush) | | | |
| Typha latifolia | X | | |
| (Cattail) | | | |

## inventory

number Z20

date 8/17/82

field investigator(s)

D. Magee

water quality

Ecological Elements

Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

Topographical Elements

Topographic Configuration

- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

Geological Elements

Hydrological Elements

Hydrologic Position

- Perched wetland
- water table wetland
- water table/Artesian wetland
- Artesian wetland

Dominant Hydrologic Type

- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection

- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation

- Seasonal Pool

Groundwater Outflow

- Absent
- Present

Inlet

- Absent
- Present, from wetland Z22
  - Perennial
  - Ephemeral

Inlet

- Absent
- Present, from wetland R1
  - Perennial
  - Ephemeral

Inlet

- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size

- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed

- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water

- <33%
- 34-66%
- 67-100%
- Does not border

Legal Access

- Yes
- No

Fetch

- Over 2000 ft.
- Under 2000 ft.

Depth of Lake

- Deep >6 ft.
- Shallow <6 ft.

Social-economical Elements

Hydrologic Connection

- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public

- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density

- Low (<120/mi²)
- Medium (120-1220/mi²)
- High (>1220/mi²)

Local Scarcity

- <200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- >1000 ft to nearest similar type

Human Crop Value or Potential

- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet

- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet

- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet

- Absent
- Present, to wetland Z17
  - Perennial
  - Ephemeral

Outlet

- Absent
- Present, to wetland ___
  - Perennial
  - Ephemeral

# WETLAND INVENTORY REPORT

**PROJECT NUMBER** 82-47B
**WETLAND NUMBER** Z 22
**FLIGHT, PHOTO NUMBER(S)** 6-44

**MAP NUMBER(S)**

**ACREAGE** 18.16

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 9.27 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 6.77 | | WOODED SWAMP |
| | | BOG |
| 2.12 | | OTHER Open Water |
| 18.16 | | TOTAL |

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## vegetation

| | occ | com | dom |
|---|---|---|---|
| Calamagrostis canadensis (Blue-joint Grass) | | | ✓ |
| Spiraea latifolia (Meadow-sweet) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Carex atherodes (Sedge) | | ✓ | |
| Nymphaea odorata (Water-lily) | | ✓ | |
| Nuphar variegatum (Bullhead-lily) | | ✓ | |
| Scirpus atrocinctus (Bulrush) | ✓ | | |
| Acer rubrum (Red Maple) | | ✓ | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Ilex verticillata (Winterberry) | | ✓ | |
| Nemopanthus mucronata (Mountain Holly) | ✓ | | |
| Vaccinium augustifolium (Low Sweet Blueberry) | ✓ | | |
| Quercus alba (White Oak) | ✓ | | |
| Glyceria canadensis (Rattlesnake Grass) | | ✓ | |

## inventory

number Z 22

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
Stream or Brookside Wetland
Open Fresh Water
■ Vegetated Subclass
☐ Non Vegetated Subclass
Deep Fresh Marsh
☐ Dead Woody
☐ Shrub
☐ Sub-Shrub
☐ Robust
☐ Narrow-Leaved
☐ Broad-Leaved
Shallow Fresh Marsh
☐ Robust
■ Narrow-Leaved
☐ Broad-Leaved
☐ Floating-Leaved
Flood Plain/Flats
☐ Emergent
☐ Shrubs and Trees
Wet Meadow
☐ Unmrazed
☐ Grazed
Shrub Swamp
■ Sapling
☐ Bushy
☐ Compact
☐ Aquatic
Wooded Swamp
■ Deciduous
☐ Evergreen
Bog
☐ Shrub
☐ Wooded

## Ecological Elements

Dominant Wetland Class
☐ Stream or Brookside Wetland
☐ Open Fresh Water
☐ Deep Fresh Marsh
■ Shallow Fresh Marsh
☐ Seasonally Flooded Flood Plain
☐ Wet Meadow
☐ Shrub Swamp
☐ Wooded Swamp
☐ Bog
☐ Other
Wetland Class Richness
☐ 5
■ 4
☐ 3
☐ 2
☐ 1
Subclass Richness (Lateral Diversity)
☐ 10
☐ 4-9
■ 4-5
☐ 2-3
☐ 1
Vegetative Interspersion
■ High
☐ Moderate
☐ Low
Surrounding Habitat
☐ 90% of 2 or more of Listed Types
■ 50-90% of 1 or more; 90% of 1
☐ 50% of 1 or more of Listed Types
Cover Type
☐ 26-75% Scattered
☐ 26-75% Peripheral
☐ 75% or <25 Scattered
■ 100% Cover; 75% or <25% Peripheral
Percent Open Water
■ 0-30%
☐ 34-66%
☐ 67-95%
☐ 96-100%
Vegetative Species Richness
☐ Low
■ Medium
☐ High
Proportion of Wildlife Food Plants
☐ Low
■ Moderate
☐ High
Vegetative Density
■ High
☐ Moderate
☐ Low
Wetland Juxtaposition
☐ Highly Favorable
☐ Moderately Favorable
■ Unfavorable

## Special Elements

☐ Aquatic Study Area
☐ Sanctuary or Refuge
☐ Wildlife Management Area
☐ Fisheries Management Area
☐ Educational Study Area
☐ Historical Area
☐ Other

## Topographical Elements

Topographic Configuration
☐ Closed Basin
■ Semi-closed Basin
☐ Valley
☐ Hillside

Wetland Gradient
■ Slight 0-3%
☐ Steep 3%
Surrounding Slopes
■ Slight 0-3%
☐ Steep 3%
Topographic Position in Watershed
■ Upper
☐ Intermediate
☐ Lower

## Geological Elements

Surficial Material
☐ Till
■ Stratified Sand and Gravel
☐ Stratified Fine Sand and Silt
☐ Alluvium
Bedrock
■ Igneous and Metamorphic
☐ Sedimentary
Organic Material
☐ Absent
■ High Permeability
☐ Low Permeability

## Hydrological Elements

Hydrologic Position
■ Perched Wetland
☐ Water Table Wetland
☐ Water Table/Artesian Wetland
☐ Artesian Wetland
Transmissivity of Aquifer
☐ Low <10,000 gal/day/ft
■ Moderate 10,000 - 40,000 gal/day/ft
☐ High 40,000 gal/day/ft
Dominant Hydrologic Type
☐ Condition 1
☐ Condition 2
☐ Condition 3
☐ Condition 4
■ Condition 5
☐ Condition 6
Hydrologic Connection
☐ Not Part of Riparian System
■ Part of Riparian System
Water Level Fluctuation
☐ High
■ Low
☐ Vernal Pool
Groundwater Outflow
☐ Absent
■ Present

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |

Size
■ Large >4.6 acres
☐ Medium 1.1-4.6
☐ Small <1 acre
Surficial Geologic Material of watershed
☐ Till
■ Stratified sand and gravel
☐ Stratified fine sand and silt
☐ Alluvium
Percent Wetland Bordering Open Water
☐ <33%
☐ 34-66%
☐ 67-100%
■ Does not border
Legal Access
☐ Yes
■ No
Fetch
☐ Over 2000 ft.
☐ Under 2000 ft.
Depth of Lake
☐ Deep >6 ft.
☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
☐ Connected to a Small Stream
☐ Connected to a River
☐ Connected to a Lake
☐ Connected to a Combination
Access to Public
■ Within 100 ft of Road
☐ Access by Passable Waterway
☐ Isolated
Surrounding Population Density
☐ <1 Person/acre (<320/mi²)
■ 0.5 - 1.9 p/a (430-1220/mi²)
☐ 2 p/a (1220/mi²)
Local Scarcity
☐ 200 ft to nearest similar type
■ 201 to 1000 ft to nearest similar type
☐ 1000 ft to nearest similar type
Known Crop Value or Potential
■ None
☐ Supports 1 family for part of year
☐ Completely supports 1 family
☐ Supports viable commercial interest

Inlet
☐ Absent
☐ Present, from wetland
☐ Perennial
☐ Ephemeral
Inlet
☐ Absent
☐ Present, from wetland
☐ Perennial
☐ Ephemeral
Outlet
☐ Absent
■ Present, to wetland Z20
☐ Perennial
■ Ephemeral
Outlet
☐ Absent
☐ Present, to wetland
☐ Perennial
☐ Ephemeral

Inlet
☐ Absent
■ Present, from wetland
☐ Perennial
☐ Ephemeral
Inlet
☐ Absent
☐ Present, from wetland
☐ Perennial
☐ Ephemeral
Inlet
☐ Absent
☐ Present, from wetland
☐ Perennial
☐ Ephemeral

Errata Sheet - Submitted 8/9/84

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 23
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 106.10

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 106.10 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 106.10 | | TOTAL |

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## vegetation

| | occ | com | dom |
|---|---|---|---|
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | ✓ |
| Picea mariana | | | |
| (Black Spruce) | ✓ | | |
| Alnus rugosa | | | |
| (Speckled Alder) | | ✓ | |
| Carex trisperma | | | |
| (Sedge) | | ✓ | |
| Acer spicatum | | | |
| (Mountain Maple) | | ✓ | |
| Cinna arundinacea | | | |
| (Wood Reedgrass) | | ✓ | |
| Thuja occidentalis | | | |
| (Arbor Vitae) | | ✓ | |
| Clintonia borealis | | | |
| (Corn-Lily) | | ✓ | |
| Coptis groenlandica | | | |
| (Goldthread) | | ✓ | |
| Fraxinus pennsylvanica | | | |
| var. subintegerrima | | | |
| (Green Ash) | ✓ | | |
| Ribes glandulosum | | | |
| (Skunk Current) | | ✓ | |
| Sphagnum sp. | | | |
| (Sphagnum Moss) | ✓ | | |
| Galium sp. | | | |
| (Cleavers Bedstraw) | ✓ | | |
| Circaea canadensis | | | |
| (Enchanter's Nightshade) | ✓ | | |
| Acer rubrum | | | |
| (Red Maple) | | ✓ | |
| Larix laricina | | | |
| (tamarack) | | | |

## inventory

number Z 23

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Bronkside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

| | | | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## QUALITATIVE RESULTS

As a result of changes made in the attached Wetland Inventory Reports, one revision was realized in the qualitative wetland descriptions presented in Table 5.1-1. The qualitative description of wetland Z16 for the category "Discharge to Downstream Aquatic Systems" was changed from low to medium. The attached Table 5.1-1 replaces the original Table 5.1-1 in the August 1983 Supplemental Wetlands Assessment Report.

Table 5.1-1. Summary of major elements used to describe and evaluate supplemental wetlands.

| | MAJOR ELEMENTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | DOMINANT WETLAND TYPE | AMOUNT OF EDGE | WATER/ COVER RATIO | SURROUNDING HABITAT VARIABILITY | % BORDERING OPEN WATER | RECHARGE POTENTIAL | WATER STORAGE | DISCHARGE TO DOWNSTREAM AQUATIC SYSTEMS | LIVING FILTER CAPACITY | SIZE |
| Z1 | SM[a] | Med | High | High | Low | High | High | Low | High | Large |
| Z2 | SM | Low | High | High | Low | High | High | Low | High | Large |
| Z3 | SM | Low | High | Med | Low | High | High | Low | High | Med |
| Z4 | SM | Low | High | Med | Low | High | High | Low | High | Med |
| Z5 | SM | Low | High | Med | Low | High | High | High | High | Large |
| Z6 | CS[b] | Med | High | High | Low | High | High | High | Med | Large |
| Z7 | DS[c] | Low | High | High | High | High | Med | High | Med | Med |
| Z8 | DS | Low | High | Med | High | High | Med | High | Med | Med |
| Z9 | CS | Med | High | Med | Med | High | High | High | High | Large |
| Z10 | DS | High | High | High | Low | High | High | High | High | Large |
| Z11 | CS | Low | High | Med | Low | High | High | High | High | Large |
| Z12 | SS[d] | Med | High | Med | Med | High | High | Low | High | Large |
| Z13 | SS | Med | High | Med | Low | High | High | Low | High | Med |
| Z14 | CS | High | High | High | Med | High | High | High | High | Large |
| Z15 | CS | Low | High | Med | Low | High | High | Low | High | Large |
| Z16 | CS | High | High | High | Low | High | High | Med | High | Large |
| Z17 | SM | High | Med | Med | Med | Med | High | High | High | Med |
| Z18 | DS | Med | Med | Med | Med | High | High | High | High | Large |
| Z19 | CS | Low | High | High | Low | High | High | High | Med | Med |
| Z20 | SM | High | High | Med | Low | Med | High | High | High | Large |
| Z21 | CS | Low | High | Med | Low | Med | High | Low | High | Large |
| Z22 | SM | High | High | Med | Low | Med | High | Med | High | Med |
| Z23 | CS | Low | High | Med | Med | High | High | High | High | Large |
| Z24 | SS | Med | High | High | Low | High | High | Low | High | Med |
| Z25 | B[e] | Med | High | High | Med | High | Med | High | High | Large |
| Z26 | B | Med | High | Med | Low | Med | High | Low | High | Med |
| Z27 | SS | Med | High | High | Med | High | High | Low | High | Med |
| Z28 | B | High | High | High | Low | High | High | Med | High | Large |
| Z29 | B | Med | High | Med | Med | High | High | Med | High | Large |
| Z30 | CS | High | High | Med | Low | High | High | High | High | Large |
| Z31 | SS | Med | High | Med | High | Med | High | High | High | Large |

[a] Shallow Marsh
[b] Coniferous Swamp
[c] Deciduous Swamp
[d] Shrub Swamp
[e] Bog

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## UNNORMALIZED RESULTS

Because changes were made in the wetland inventory data, the unnormalized scores were recalculated for wetlands Z6, Z9, Z16, Z17, Z20 and Z22 for the 10 functional models. The changes in model scores were restricted to these six supplemental wetlands and in all six cases, the total score also changed. The scores of wetlands F13, F17, F28, F70, F114, K4, R7, R7A, T4, and W2 in the 1982 Wetland Assessment Report also changed because of DNR observations over an extended period of time.

Corrected scores of all wetlands were incorporated into the attached Tables 5.2-1 and 5.2-3. Where appropriate, changes have been made to "Range (this report)" and "Score Mean (this report)" on Table 5.2-1. Changes have also been made to the "Score Range" of Table 5.2-3 where appropriate. Attached Tables 5.2-1 and 5.2-3 replace the original Tables 5.2-1 and 5.2-3 presented in the August 1983 Supplemental Wetlands Assessment Report.

Table 5.2-1. Unnormalized results of 10 functional models for the supplemental wetlands.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| Z1 | SM | 97 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 10 | 486 |
| Z2 | SM | 90 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 7 | 476 |
| Z3 | SM | 74 | 12 | 57 | 100 | 0 | 77 | 35 | 36 | 35 | 7 | 433 |
| Z4 | SM | 71 | 12 | 57 | 98 | 0 | 73 | 27 | 18 | 19 | 7 | 382 |
| Z5 | SM | 92 | 52 | 56 | 103 | 0 | 79 | 49 | 48 | 38 | 15 | 532 |
| Z6 | CS | 95 | 57 | 59 | 102 | 0 | 73 | 57 | 42 | 34 | 18 | 537 |
| Z7 | DS | 79 | 41 | 56 | 72 | 7 | 51 | 19 | 25 | 19 | 7 | 376 |
| Z8 | DS | 77 | 46 | 52 | 78 | 7 | 57 | 19 | 25 | 19 | 7 | 387 |
| Z9 | CS | 102 | 54 | 62 | 97 | 19 | 74 | 51 | 38 | 28 | 10 | 535 |
| Z10 | DS | 101 | 48 | 56 | 103 | 0 | 71 | 53 | 39 | 37 | 21 | 529 |
| Z11 | CS | 88 | 47 | 56 | 97 | 0 | 65 | 57 | 42 | 31 | 15 | 498 |
| Z12 | SS | 87 | 16 | 60 | 106 | 0 | 81 | 45 | 35 | 27 | 15 | 472 |
| Z13 | SS | 82 | 12 | 57 | 102 | 0 | 77 | 37 | 31 | 27 | 15 | 440 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| Z15 | CS | 90 | 16 | 60 | 100 | 0 | 70 | 57 | 38 | 31 | 15 | 477 |
| Z16 | CS | 105 | 48 | 56 | 103 | 0 | 71 | 57 | 38 | 37 | 18 | 533 |
| Z17 | SM | 110 | 52 | 53 | 93 | 11 | 71 | 35 | 43 | 46 | 10 | 524 |
| Z18 | DS | 90 | 61 | 59 | 96 | 17 | 75 | 53 | 39 | 34 | 18 | 542 |
| Z19 | CS | 88 | 54 | 57 | 97 | 0 | 76 | 43 | 34 | 31 | 10 | 490 |
| Z20 | SM | 99 | 50 | 59 | 102 | 13 | 85 | 49 | 48 | 41 | 18 | 554 |
| Z21 | CS | 73 | 12 | 47 | 96 | 0 | 66 | 49 | 34 | 37 | 18 | 432 |
| Z22 | SM | 102 | 48 | 46 | 103 | 0 | 79 | 49 | 44 | 44 | 21 | 536 |
| Z23 | CS | 93 | 57 | 59 | 99 | 17 | 73 | 51 | 50 | 31 | 7 | 537 |
| Z24 | SS | 90 | 40 | 59 | 94 | 0 | 70 | 37 | 31 | 33 | 18 | 472 |
| Z25 | B | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| Z26 | B | 81 | 12 | 57 | 94 | 0 | 66 | 31 | 27 | 42 | 10 | 420 |
| Z27 | SS | 96 | 16 | 55 | 101 | 0 | 78 | 37 | 31 | 33 | 18 | 465 |
| Z28 | B | 106 | 47 | 56 | 99 | 0 | 68 | 39 | 31 | 45 | 13 | 504 |
| Z29 | B | 97 | 52 | 56 | 101 | 0 | 71 | 39 | 35 | 39 | 10 | 500 |
| Z30 | CS | 109 | 57 | 59 | 100 | 0 | 78 | 51 | 38 | 34 | 13 | 539 |
| Z31 | SS | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-770 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |
| Range (this report) | | 71-110 | 12-63 | 46-64 | 72-106 | 0-22 | 51-86 | 19-57 | 18-50 | 19-48 | 7-23 | 376-594 |
| Range (8/82 report) | | 44-131 | 6-66 | 27-64 | 56-109 | 0-29 | 33-89 | 11-57 | 20-64 | 16-53 | 7-21 | 259-608 |
| Score Mean (this report) | | 93 | 40 | 57 | 98 | 5 | 73 | 44 | 37 | 34 | 14 | 495 |
| Score Mean (8/82 report) | | 75 | 29 | 38 | 91 | 3.4 | 66 | 38 | 33 | 34 | 11 | 420 |

Table 5.2-3. Unnormalized results of the 10 functional models for the combined 158 wetlands.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| A1 | SM[a] | 74 | 8 | 29 | 87 | 0 | 68 | 27 | 32 | 35 | 10 | 370 |
| A2 | CS[b] | 64 | 39 | 36 | 81 | 0 | 52 | 43 | 27 | 31 | 7 | 380 |
| A3 | DS[c] | 49 | 12 | 36 | 90 | 0 | 62 | 39 | 24 | 31 | 7 | 350 |
| B1 | SW[d] | 56 | 32 | 42 | 58 | 3 | 47 | 11 | 23 | 27 | 7 | 306 |
| B2* | CS | 96 | 53 | 45 | 97 | 0 | 80 | 51 | 40 | 28 | 10 | 500 |
| B3* | DS | 71 | 31 | 42 | 71 | 15 | 48 | 39 | 33 | 33 | 7 | 390 |
| B4* | CS | 92 | 48 | 33 | 99 | 0 | 68 | 51 | 40 | 31 | 10 | 472 |
| B5* | CS | 75 | 8 | 40 | 90 | 0 | 69 | 35 | 28 | 25 | 7 | 377 |
| B8* | DS | 58 | 8 | 38 | 79 | 0 | 63 | 31 | 25 | 33 | 7 | 342 |
| D1* | CS | 100 | 53 | 43 | 98 | 19 | 77 | 57 | 44 | 37 | 18 | 546 |
| D2 | SW | 48 | 22 | 39 | 57 | 3 | 33 | 11 | 26 | 31 | 7 | 277 |
| D3* | DS | 65 | 44 | 30 | 95 | 0 | 64 | 39 | 30 | 28 | 7 | 402 |
| D4* | CS | 92 | 47 | 31 | 100 | 0 | 69 | 51 | 40 | 31 | 10 | 471 |
| D4A* | DS | 61 | 12 | 32 | 95 | 0 | 67 | 39 | 26 | 28 | 7 | 367 |
| D5* | B[e] | 55 | 8 | 40 | 90 | 0 | 62 | 23 | 22 | 39 | 7 | 346 |
| D8* | DS | 57 | 8 | 31 | 86 | 0 | 58 | 31 | 25 | 33 | 7 | 336 |
| D18 | DS | 48 | 8 | 31 | 88 | 0 | 59 | 31 | 20 | 25 | 7 | 317 |
| F1 | SW | 83 | 41 | 54 | 61 | 5 | 55 | 27 | 37 | 31 | 10 | 404 |
| F2 | SM | 131 | 55 | 54 | 81 | 11 | 77 | 43 | 59 | 38 | 10 | 559 |
| F4 | CS | 97 | 52 | 41 | 95 | 19 | 72 | 43 | 42 | 28 | 10 | 499 |
| F5 | CS | 81 | 12 | 43 | 96 | 0 | 66 | 49 | 34 | 31 | 15 | 427 |
| F6 | SW | 56 | 44 | 35 | 77 | 5 | 60 | 11 | 20 | 19 | 7 | 334 |
| F7 | SM | 100 | 23 | 40 | 100 | 0 | 83 | 43 | 46 | 38 | 10 | 483 |
| F8 | DS | 60 | 8 | 38 | 84 | 0 | 62 | 31 | 22 | 31 | 10 | 346 |
| F9 | CS | 99 | 52 | 46 | 90 | 27 | 70 | 54 | 52 | 34 | 14 | 538 |
| F10* | CS | 101 | 57 | 45 | 103 | 29 | 76 | 51 | 50 | 28 | 10 | 550 |
| F11* | CS | 78 | 48 | 42 | 100 | 0 | 73 | 57 | 42 | 31 | 15 | 486 |
| F12 | SM | 107 | 20 | 46 | 104 | 18 | 81 | 43 | 52 | 32 | 10 | 513 |
| F13* | CS | 70 | 13 | 44 | 101 | 0 | 71 | 43 | 27 | 31 | 7 | 407 |
| F15 | DS | 96 | 19 | 46 | 98 | 0 | 67 | 53 | 37 | 37 | 18 | 471 |
| F16 | B | 79 | 16 | 46 | 104 | 0 | 70 | 45 | 37 | 48 | 18 | 463 |
| F17 | DS | 59 | 19 | 34 | 94 | 0 | 68 | 39 | 26 | 28 | 7 | 374 |
| F18 | CS | 96 | 53 | 46 | 99 | 0 | 77 | 51 | 38 | 31 | 10 | 501 |
| F19 | SM | 105 | 58 | 46 | 97 | 22 | 86 | 46 | 64 | 50 | 14 | 588 |
| F21 | SM | 100 | 53 | 40 | 95 | 22 | 83 | 41 | 56 | 44 | 18 | 552 |
| F22 | DS | 57 | 44 | 39 | 88 | 0 | 63 | 45 | 32 | 37 | 15 | 420 |
| F23* | SM | 104 | 62 | 44 | 106 | 22 | 89 | 43 | 56 | 38 | 10 | 574 |
| F24 | SW | 56 | 27 | 35 | 69 | 5 | 47 | 17 | 25 | 30 | 15 | 326 |
| F25* | DS | 70 | 45 | 31 | 97 | 0 | 71 | 45 | 32 | 40 | 18 | 449 |
| F26 | SW | 52 | 26 | 30 | 58 | 4 | 37 | 11 | 18 | 16 | 7 | 259 |
| F27* | DS | 57 | 44 | 30 | 91 | 0 | 61 | 45 | 32 | 40 | 18 | 418 |
| F28* | B | 110 | 61 | 43 | 103 | 21 | 74 | 45 | 50 | 53 | 18 | 578 |
| F29* | SS[f] | 95 | 44 | 29 | 96 | 0 | 77 | 31 | 31 | 27 | 10 | 440 |
| F30 | SW | 53 | 22 | 30 | 56 | 4 | 36 | 11 | 21 | 27 | 7 | 267 |

Table 5.2-3. (continued)

| WETLAND NO. | WETLAND TYPE | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F31* | CS | 83 | 48 | 31 | 98 | 0 | 69 | 51 | 38 | 34 | 10 | 462 |
| F32* | DS | 53 | 8 | 29 | 91 | 0 | 63 | 31 | 20 | 28 | 7 | 330 |
| F33 | DS | 52 | 39 | 32 | 82 | 0 | 54 | 39 | 26 | 28 | 7 | 359 |
| F34 | DS | 47 | 9 | 29 | 81 | 0 | 51 | 31 | 20 | 28 | 7 | 303 |
| F35 | CS | 82 | 12 | 34 | 100 | 0 | 69 | 49 | 34 | 34 | 15 | 429 |
| F36 | DS | 62 | 13 | 32 | 85 | 0 | 55 | 45 | 28 | 34 | 15 | 369 |
| F37 | SM | 121 | 65 | 47 | 98 | 20 | 86 | 46 | 61 | 38 | 14 | 596 |
| F38 | SW | 53 | 29 | 35 | 59 | 3 | 42 | 11 | 21 | 27 | 7 | 287 |
| F39 | SS | 89 | 49 | 41 | 102 | 0 | 84 | 39 | 35 | 21 | 7 | 467 |
| F40 | SM | 112 | 49 | 43 | 94 | 0 | 82 | 49 | 48 | 38 | 18 | 533 |
| F42 | SS | 65 | 8 | 38 | 91 | 0 | 70 | 23 | 23 | 32 | 7 | 357 |
| F43 | B | 64 | 12 | 43 | 98 | 0 | 69 | 31 | 24 | 36 | 7 | 384 |
| F45 | B | 69 | 8 | 40 | 90 | 0 | 62 | 23 | 20 | 39 | 10 | 361 |
| F46 | CS | 68 | 12 | 43 | 96 | 0 | 66 | 49 | 33 | 31 | 15 | 413 |
| F48 | CS | 62 | 8 | 40 | 96 | 0 | 65 | 35 | 25 | 25 | 7 | 363 |
| F50 | DS | 52 | 8 | 40 | 92 | 0 | 62 | 31 | 20 | 28 | 7 | 340 |
| F51 | DS | 55 | 8 | 40 | 84 | 0 | 57 | 31 | 26 | 37 | 7 | 345 |
| F52 | B | 82 | 13 | 44 | 103 | 0 | 73 | 31 | 31 | 39 | 10 | 426 |
| F53 | CS | 85 | 48 | 42 | 103 | 0 | 71 | 51 | 38 | 25 | 7 | 470 |
| F54 | B | 71 | 12 | 4[illegible] | 98 | 0 | 69 | 31 | 24 | 33 | 7 | 388 |
| F55 | DS | 53 | 8 | 3[illegible] | 83 | 0 | 58 | 31 | 26 | 40 | 7 | 344 |
| F57* | DS | 103 | 60 | .1 | 95 | 19 | 75 | 47 | 47 | 34 | 10 | 531 |
| F58 | SM | 79 | 8 | 38 | 82 | 0 | 69 | 33 | 39 | 49 | 18 | 415 |
| F60* | CS | 93 | 49 | 34 | 101 | 0 | 75 | 57 | 42 | 40 | 18 | 509 |
| F61* | DS | 58 | 37 | 29 | 84 | 0 | 59 | 45 | 32 | 31 | 15 | 390 |
| F62* | DS | 76 | 48 | 32 | 94 | 0 | 70 | 53 | 39 | 37 | 18 | 467 |
| F63* | CS | 90 | 53 | 34 | 101 | 0 | 75 | 51 | 38 | 31 | 10 | 483 |
| F64* | B | 78 | 53 | 34 | 99 | 0 | 75 | 39 | 35 | 39 | 7 | 459 |
| F65* | SS | 96 | 49 | 31 | 95 | 0 | 77 | 31 | 31 | 27 | 10 | 447 |
| F66* | CS | 94 | 48 | 33 | 99 | 0 | 68 | 51 | 38 | 31 | 10 | 472 |
| F69* | DS | 59 | 44 | 30 | 95 | 0 | 64 | 45 | 32 | 34 | 15 | 418 |
| F70* | SM | 88 | 15 | 32 | 93 | 0 | 72 | 35 | 36 | 32 | 10 | 413 |
| F72* | DS | 58 | 13 | 32 | 89 | 0 | 58 | 39 | 24 | 28 | 7 | 348 |
| F81* | AB[B] | 58 | 20 | 29 | 77 | 4 | 50 | 17 | 24 | 37 | 15 | 331 |
| F86 | DS | 53 | 8 | 38 | 97 | 0 | 63 | 37 | 24 | 34 | 15 | 369 |
| F87 | DS | 53 | 8 | 38 | 97 | 0 | 63 | 37 | 24 | 34 | 15 | 369 |
| F90 | AB | 52 | 20 | 42 | 73 | 3 | 50 | 17 | 24 | 37 | 15 | 333 |
| F114* | SM | 92 | 40 | 52 | 84 | 0 | 65 | 33 | 39 | 46 | 18 | 469 |
| F116 | CS | 58 | 8 | 48 | 96 | 0 | 65 | 35 | 23 | 28 | 7 | 368 |
| F119 | CS | 73 | 12 | 43 | 96 | 0 | 66 | 49 | 34 | 34 | 18 | 425 |
| F121 | CS | 53 | 8 | 40 | 92 | 0 | 62 | 31 | 20 | 25 | 7 | 338 |
| F122 | DS | 51 | 8 | 40 | 92 | 0 | 62 | 37 | 24 | 31 | 15 | 360 |
| F122A | SS | 75 | 8 | 40 | 88 | 0 | 66 | 29 | 30 | 44 | 18 | 398 |
| F125 | SS | 64 | 8 | 40 | 86 | 0 | 65 | 29 | 30 | 48 | 18 | 388 |
| F126 | SM | 67 | 12 | 43 | 102 | 0 | 74 | 35 | 33 | 32 | 7 | 405 |
| F127 | DS | 70 | 6 | 29 | 88 | 0 | 59 | 31 | 23 | 33 | 7 | 346 |

Table 5.2-3. (continued)

| WETLAND NO. | WETLAND TYPE | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G1 | DS | 51 | 8 | 40 | 92 | 0 | 62 | 31 | 22 | 28 | 7 | 341 |
| H1 | CS | 86 | 16 | 37 | 104 | 0 | 73 | 51 | 34 | 31 | 10 | 442 |
| I1 | DS | 75 | 8 | 38 | 89 | 0 | 62 | 37 | 30 | 42 | 18 | 399 |
| J1 | DS | 44 | 8 | 38 | 89 | 0 | 58 | 31 | 26 | 43 | 7 | 344 |
| K1 | SW | 64 | 22 | 30 | 59 | 6 | 42 | 17 | 22 | 28 | 18 | 308 |
| K2 | DS | 85 | 49 | 34 | 101 | 0 | 75 | 57 | 42 | 37 | 18 | 498 |
| K3 | CS | 77 | 48 | 31 | 102 | 0 | 72 | 57 | 42 | 34 | 15 | 478 |
| K4 | SS | 71 | 8 | 31 | 88 | 0 | 66 | 29 | 27 | 44 | 18 | 382 |
| K5 | B | 60 | 8 | 31 | 94 | 0 | 65 | 29 | 24 | 45 | 15 | 371 |
| M1 | SS | 67 | 45 | 28 | 90 | 0 | 81 | 29 | 32 | 33 | 15 | 420 |
| M2 | SW | 58 | 22 | 30 | 60 | 0 | 39 | 11 | 21 | 24 | 7 | 272 |
| M3* | DS | 73 | 44 | 28 | 98 | 0 | 68 | 39 | 31 | 31 | 10 | 422 |
| M4 | DS | 57 | 8 | 29 | 85 | 0 | 59 | 31 | 23 | 36 | 7 | 335 |
| M5 | CS | 81 | 44 | 30 | 95 | 0 | 64 | 49 | 38 | 37 | 18 | 456 |
| M6 | DS | 65 | 40 | 27 | 81 | 0 | 61 | 31 | 24 | 28 | 7 | 364 |
| N1 | SS | 79 | 8 | 38 | 91 | 0 | 74 | 29 | 30 | 44 | 18 | 411 |
| O1* | CS | 89 | 53 | 43 | 96 | 0 | 81 | 51 | 40 | 34 | 10 | 497 |
| O3 | DS | 65 | 44 | 37 | 100 | 0 | 65 | 45 | 34 | 37 | 15 | 442 |
| P1 | DS | 73 | 36 | 36 | 74 | 18 | 59 | 39 | 31 | 31 | 7 | 404 |
| P2* | CS | 85 | 48 | 33 | 103 | 0 | 71 | 51 | 38 | 31 | 7 | 467 |
| R1* | DS | 73 | 48 | 41 | 97 | 0 | 68 | 47 | 35 | 28 | 10 | 447 |
| R1A* | DS | 81 | 52 | 41 | 94 | 17 | 70 | 47 | 35 | 25 | 7 | 469 |
| R3 | SM | 116 | 61 | 41 | 96 | 11 | 81 | 46 | 61 | 41 | 14 | 568 |
| R5 | CS | 108 | 56 | 43 | 101 | 17 | 69 | 57 | 42 | 43 | 21 | 557 |
| R7 | DS | 62 | 45 | 38 | 101 | 0 | 67 | 45 | 32 | 37 | 15 | 442 |
| R7A | SS | 84 | 13 | 44 | 109 | 0 | 79 | 37 | 31 | 30 | 15 | 442 |
| R8* | SS | 74 | 12 | 34 | 102 | 0 | 77 | 37 | 31 | 30 | 15 | 412 |
| T1* | B | 72 | 12 | 53 | 94 | 0 | 66 | 37 | 28 | 45 | 15 | 422 |
| T2* | B | 93 | 12 | 53 | 98 | 0 | 69 | 37 | 31 | 42 | 18 | 453 |
| T3* | SS | 80 | 8 | 50 | 94 | 0 | 70 | 29 | 27 | 27 | 15 | 400 |
| T4* | CS | 118 | 66 | 64 | 97 | 17 | 86 | 54 | 55 | 37 | 14 | 608 |
| T5* | CS | 78 | 12 | 41 | 95 | 0 | 67 | 43 | 30 | 31 | 7 | 404 |
| W1* | CS | 101 | 59 | 64 | 99 | 19 | 79 | 51 | 42 | 31 | 10 | 555 |
| W2* | CS | 102 | 59 | 59 | 98 | 19 | 83 | 51 | 38 | 31 | 10 | 550 |
| X2 | DS | 68 | 8 | 29 | 89 | 0 | 62 | 31 | 23 | 33 | 7 | 350 |
| X3 | CS | 94 | 48 | 33 | 99 | 0 | 68 | 51 | 38 | 34 | 10 | 475 |
| X4 | SM | 64 | 8 | 29 | 95 | 0 | 74 | 27 | 29 | 35 | 7 | 368 |

Table 5.2-3. (continued)

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| Z1 | SM | 97 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 10 | 486 |
| Z2 | SM | 90 | 16 | 60 | 104 | 0 | 81 | 43 | 40 | 35 | 7 | 476 |
| Z3 | SM | 74 | 12 | 57 | 100 | 0 | 77 | 35 | 36 | 35 | 7 | 433 |
| Z4 | SM | 71 | 12 | 57 | 98 | 0 | 73 | 27 | 18 | 19 | 7 | 382 |
| Z5 | SM | 92 | 52 | 56 | 103 | 0 | 79 | 49 | 48 | 38 | 15 | 532 |
| Z6 | CS | 95 | 57 | 59 | 102 | 0 | 73 | 57 | 42 | 34 | 18 | 537 |
| Z7 | DS | 79 | 41 | 56 | 72 | 7 | 51 | 19 | 25 | 19 | 7 | 376 |
| Z8 | DS | 77 | 46 | 52 | 78 | 7 | 57 | 19 | 25 | 19 | 7 | 387 |
| Z9 | CS | 102 | 54 | 62 | 97 | 19 | 74 | 51 | 38 | 28 | 10 | 535 |
| Z10 | DS | 101 | 48 | 56 | 103 | 0 | 71 | 53 | 39 | 37 | 21 | 529 |
| Z11 | CS | 88 | 47 | 56 | 97 | 0 | 65 | 57 | 42 | 31 | 15 | 498 |
| Z12 | SS | 87 | 16 | 60 | 106 | 0 | 81 | 45 | 35 | 27 | 15 | 472 |
| Z13 | SS | 82 | 12 | 57 | 102 | 0 | 77 | 37 | 31 | 27 | 15 | 440 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| Z15 | CS | 90 | 16 | 60 | 100 | 0 | 70 | 57 | 38 | 31 | 15 | 477 |
| Z16 | CS | 105 | 48 | 56 | 103 | 0 | 71 | 57 | 38 | 37 | 18 | 533 |
| Z17 | SM | 110 | 52 | 53 | 93 | 11 | 71 | 35 | 43 | 46 | 10 | 524 |
| Z18 | DS | 90 | 61 | 59 | 96 | 17 | 75 | 53 | 39 | 34 | 18 | 542 |
| Z19 | CS | 88 | 54 | 57 | 97 | 0 | 76 | 43 | 34 | 31 | 10 | 490 |
| Z20 | SM | 99 | 50 | 49 | 102 | 13 | 85 | 49 | 48 | 41 | 18 | 554 |
| Z21 | CS | 73 | 12 | 47 | 96 | 0 | 66 | 49 | 34 | 37 | 18 | 432 |
| Z22 | SM | 102 | 48 | 46 | 103 | 0 | 79 | 49 | 44 | 44 | 21 | 536 |
| Z23 | CS | 93 | 57 | 59 | 99 | 17 | 73 | 51 | 50 | 31 | 7 | 537 |
| Z24 | SS | 90 | 40 | 59 | 94 | 0 | 70 | 37 | 31 | 33 | 18 | 472 |
| Z25 | B | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| Z26 | B | 81* | 12 | 57 | 94 | 0 | 66 | 31 | 27 | 42 | 10 | 420 |
| Z27 | SS | 96 | 16 | 55 | 101 | 0 | 78 | 37 | 31 | 33 | 18 | 465 |
| Z28 | B | 106 | 47 | 56 | 99 | 0 | 68 | 39 | 31 | 45 | 13 | 504 |
| Z29 | B | 97 | 52 | 56 | 101 | 0 | 71 | 39 | 35 | 39 | 10 | 500 |
| Z30 | CS | 109 | 57 | 59 | 100 | 0 | 78 | 51 | 38 | 34 | 13 | 539 |
| Z31 | SS | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| Score Range | | 44-131 | 6-66 | 27-64 | 56-109 | 0-29 | 33-89 | 11-57 | 18-64 | 16-53 | 7-23 | 259-608 |
| Score Mean | | 78.7 | 31.3 | 41.9 | 91.9 | 3.6 | 67.9 | 39.3 | 33.7 | 33.7 | 11.9 | 433.4 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-770 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |

[a]Shallow marsh; [b]Coniferous swamp; [c]Deciduous swamp; [d]Streamside wetland; [e]Bog; [f]Shrub swamp; [g]Aquatic bed

*Wetlands of special interest

## NORMALIZED RESULTS

It was necessary to recompute the normalized scores for all 158 wetlands as a result of DNR observations, the additions of supplemental wetlands, and changes to the range of six of the models over the course of the project. The normalization procedure used is described in Appendix L of the Wetlands Assessment Report (NAI and IEP, 1982).

The attached Table 5.2-2 replaces Table 5.2-2 of the Supplemental Wetlands Assessment Report and contains the normalized scores of all 158 wetlands.

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Table 5.2-2. Normalized results of 10 functional models for the combined 158 wetlands.

| WETLAND NO. | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A1 | 17.20 | 1.36 | 1.44 | 4.88 | 0.00 | 4.64 | 1.95 | 2.00 | 2.55 | 1.85 | 37.87 |
| A2 | 12.80 | 5.60 | 2.64 | 4.48 | 0.00 | 3.04 | 3.10 | 1.60 | 2.10 | 1.05 | 36.41 |
| A3 | 6.40 | 1.36 | 2.64 | 5.12 | 0.00 | 4.00 | 2.80 | 1.40 | 2.10 | 1.05 | 26.87 |
| B1 | 9.20 | 1.36 | 3.60 | 2.80 | 2.48 | 2.56 | 0.85 | 1.30 | 1.60 | 1.05 | 26.80 |
| B2 | 26.80 | 2.88 | 4.08 | 5.60 | 0.00 | 5.84 | 3.65 | 2.60 | 1.70 | 1.85 | 55.00 |
| B3 | 16.00 | 5.92 | 3.60 | 3.76 | 4.00 | 2.64 | 2.80 | 2.10 | 2.30 | 1.05 | 44.17 |
| B4 | 24.80 | 5.84 | 2.16 | 5.76 | 0.00 | 4.64 | 3.65 | 2.60 | 2.10 | 1.85 | 53.40 |
| B5 | 17.60 | 1.36 | 3.28 | 5.12 | 0.00 | 4.72 | 2.55 | 1.70 | 1.35 | 1.05 | 38.73 |
| B8 | 10.00 | 1.36 | 2.96 | 4.32 | 0.00 | 4.16 | 2.25 | 1.45 | 2.30 | 1.05 | 29.85 |
| D1 | 28.40 | 5.44 | 3.76 | 5.68 | 4.48 | 5.52 | 4.05 | 2.95 | 2.80 | 3.95 | 67.03 |
| D2 | 6.00 | 2.88 | 3.12 | 2.72 | 2.48 | 1.12 | 0.85 | 1.55 | 2.10 | 1.05 | 23.87 |
| D3 | 13.20 | 5.36 | 1.68 | 5.44 | 0.00 | 4.24 | 2.80 | 1.85 | 1.70 | 1.05 | 37.32 |
| D4 | 24.80 | 1.36 | 1.84 | 5.84 | 0.00 | 4.72 | 3.65 | 2.60 | 2.10 | 1.85 | 48.76 |
| D4A | 11.60 | 5.36 | 2.00 | 5.44 | 0.00 | 4.56 | 2.80 | 1.55 | 1.70 | 1.05 | 36.06 |
| D5 | 8.80 | 4.88 | 3.28 | 5.12 | 0.00 | 4.00 | 1.70 | 1.20 | 3.05 | 1.05 | 33.08 |
| D8 | 9.60 | 1.36 | 1.84 | 4.80 | 0.00 | 3.60 | 2.25 | 1.45 | 2.30 | 1.05 | 28.25 |
| D18 | 6.00 | 6.40 | 1.84 | 4.96 | 0.00 | 3.76 | 2.25 | 1.05 | 1.35 | 1.05 | 28.66 |
| F1 | 21.20 | 5.36 | 5.52 | 2.96 | 2.72 | 3.36 | 1.95 | 2.40 | 2.10 | 1.85 | 49.42 |
| F2 | 42.00 | 4.48 | 5.52 | 4.48 | 3.44 | 5.52 | 3.10 | 4.10 | 2.95 | 1.85 | 77.44 |
| F4 | 27.20 | 5.84 | 3.44 | 5.44 | 4.48 | 5.04 | 3.10 | 2.80 | 1.70 | 1.85 | 60.89 |
| F5 | 20.00 | 5.84 | 3.76 | 5.52 | 0.00 | 4.40 | 3.50 | 2.15 | 2.10 | 3.15 | 50.42 |
| F6 | 9.20 | 3.12 | 2.48 | 4.16 | 2.72 | 3.84 | 0.85 | 1.05 | 0.60 | 1.05 | 29.07 |
| F7 | 28.40 | 7.28 | 3.28 | 5.84 | 0.00 | 6.16 | 3.10 | 3.10 | 2.95 | 1.85 | 61.96 |
| F8 | 11.20 | 6.72 | 2.96 | 4.64 | 0.00 | 4.00 | 2.25 | 1.20 | 2.10 | 1.85 | 36.92 |
| F9 | 28.00 | 5.44 | 4.24 | 5.12 | 5.44 | 4.80 | 3.85 | 3.55 | 2.45 | 2.90 | 65.79 |
| F10 | 28.80 | 1.92 | 4.08 | 6.08 | 5.68 | 5.44 | 3.65 | 3.40 | 1.70 | 1.85 | 62.60 |
| F11 | 18.80 | 1.76 | 3.60 | 5.84 | 0.00 | 5.12 | 4.05 | 2.80 | 2.10 | 3.15 | 47.23 |
| F12 | 31.60 | 1.76 | 4.24 | 6.16 | 4.32 | 5.92 | 3.10 | 3.55 | 2.20 | 1.85 | 61.70 |
| F13 | 15.20 | 1.76 | 3.92 | 5.92 | 0.00 | 4.96 | 3.10 | 1.60 | 2.10 | 1.05 | 39.61 |
| F15 | 26.80 | 1.36 | 4.24 | 6.16 | 0.00 | 4.56 | 3.75 | 2.40 | 2.80 | 3.95 | 55.54 |
| F16 | 19.20 | 7.84 | 4.24 | 6.16 | 0.00 | 4.80 | 3.20 | 2.40 | 4.15 | 3.95 | 55.94 |
| F17 | 10.80 | 1.36 | 2.32 | 5.44 | 0.00 | 4.56 | 2.80 | 1.55 | 1.70 | 1.05 | 31.52 |
| F18 | 26.80 | 7.04 | 4.24 | 5.76 | 0.00 | 5.52 | 3.65 | 2.45 | 2.10 | 1.85 | 59.41 |
| F19 | 30.40 | 3.24 | 4.24 | 5.60 | 4.80 | 6.40 | 3.30 | 4.50 | 4.40 | 2.90 | 67.71 |
| F21 | 28.40 | 1.36 | 3.28 | 5.44 | 4.80 | 6.16 | 2.95 | 3.85 | 3.65 | 3.95 | 63.84 |
| F22 | 9.60 | 5.84 | 3.12 | 4.96 | 0.00 | 4.16 | 3.20 | 2.00 | 2.80 | 3.15 | 38.83 |
| F23 | 30.00 | 1.36 | 3.92 | 6.32 | 4.80 | 6.72 | 3.10 | 3.85 | 2.95 | 1.85 | 64.87 |
| F24 | 9.20 | 5.84 | 2.48 | 3.60 | 2.72 | 2.56 | 1.30 | 1.45 | 1.95 | 3.15 | 34.25 |
| F25 | 15.20 | 1.36 | 1.84 | 5.60 | 0.00 | 4.96 | 3.20 | 2.00 | 3.20 | 3.95 | 41.31 |
| F26 | 7.60 | 4.80 | 1.68 | 2.80 | 2.56 | 1.52 | 0,85 | 0.90 | 0.25 | 1.05 | 24.01 |
| F27 | 9.60 | 1.44 | 1.68 | 5.20 | 0.00 | 3.92 | 3.20 | 2.00 | 3.20 | 3.95 | 34.19 |
| F28 | 32.80 | 1.76 | 3.76 | 6.08 | 4.72 | 5.20 | 2.80 | 3.10 | 4.05 | 1.85 | 66.12 |
| F29 | 26.40 | 1.92 | 1.44 | 5.52 | 0.00 | 5.52 | 2.25 | 1.90 | 1.60 | 1.85 | 48.40 |
| F30 | 8.00 | 7.76 | 1.68 | 2.64 | 2.56 | 1.44 | 0.85 | 1.15 | 1.60 | 1.05 | 33.73 |

Table 5.2-2. (continued)

| WETLAND NO. | FUNCTIONAL MODELS: BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| F31 | 21.20 | 3.68 | 1.84 | 5.68 | 0.00 | 4.72 | 3.65 | 2.45 | 2.45 | 1.85 | 47.52 |
| F32 | 8.00 | 5.92 | 1.44 | 5.20 | 0.00 | 4.16 | 2.25 | 1.05 | 1.70 | 1.05 | 30.77 |
| F33 | 7.60 | 5.92 | 2.00 | 4.56 | 0.00 | 3.20 | 2.80 | 1.55 | 1.70 | 1.05 | 30.38 |
| F34 | 5.60 | 1.36 | 1.44 | 4.48 | 0.00 | 2.96 | 2.25 | 1.05 | 1.70 | 1.05 | 21.89 |
| F35 | 20.80 | 1.76 | 2.32 | 5.84 | 0.00 | 4.72 | 3.50 | 2.15 | 2.45 | 3.15 | 46.69 |
| F36 | 12.00 | 1.36 | 2.00 | 4.72 | 0.00 | 3.36 | 3.20 | 1.70 | 2.45 | 3.15 | 33.94 |
| F37 | 37.60 | 1.76 | 4.40 | 5.68 | 4.56 | 6.40 | 3.30 | 4.25 | 2.95 | 2.90 | 73.80 |
| F38 | 8.00 | 1.36 | 2.48 | 2.88 | 2.48 | 2.00 | 0.85 | 1.15 | 1.60 | 1.05 | 23.85 |
| F39 | 23.60 | 1.36 | 3.44 | 6.00 | 0.00 | 6.24 | 2.80 | 2.25 | 0.85 | 1.05 | 47.59 |
| F40 | 33.60 | 1.36 | 3.76 | 5.44 | 0.00 | 6.00 | 3.50 | 3.25 | 2.95 | 3.95 | 63.81 |
| F42 | 13.20 | 1.92 | 2.96 | 5.20 | 0.00 | 4.80 | 1.70 | 1.30 | 2.20 | 1.05 | 34.33 |
| F43 | 12.80 | 5.84 | 3.76 | 5.68 | 0.00 | 4.72 | 2.25 | 1.40 | 2.70 | 1.05 | 40.20 |
| F45 | 14.80 | 1.76 | 3.28 | 5.12 | 0.00 | 4.00 | 1.70 | 1.05 | 3.05 | 1.85 | 36.61 |
| F46 | 14.40 | 1.36 | 3.76 | 5.52 | 0.00 | 4.40 | 3.50 | 2.10 | 2.10 | 3.15 | 40.29 |
| F48 | 12.00 | 7.20 | 3.28 | 5.52 | 0.00 | 4.32 | 2.55 | 1.45 | 1.35 | 1.05 | 38.72 |
| F50 | 7.60 | 1.36 | 3.28 | 5.28 | 0.00 | 4.00 | 2.25 | 1.05 | 1.70 | 1.05 | 27.57 |
| F51 | 8.80 | 5.92 | 3.28 | 4.64 | 0.00 | 3.52 | 2.25 | 1.55 | 2.80 | 1.05 | 33.81 |
| F52 | 20.80 | 4.56 | 3.92 | 6.08 | 0.00 | 5.12 | 2.25 | 1.90 | 3.05 | 1.85 | 49.53 |
| F53 | 22.00 | 5.84 | 3.60 | 6.08 | 0.00 | 4.96 | 3.65 | 2.45 | 1.35 | 1.05 | 50.98 |
| F54 | 16.00 | 6.40 | 3.76 | 5.68 | 0.00 | 4.72 | 2.25 | 1.40 | 2.30 | 1.05 | 43.56 |
| F55 | 8.00 | 6.40 | 2.96 | 4.64 | 0.00 | 3.60 | 2.25 | 1.55 | 3.20 | 1.05 | 33.65 |
| F57 | 29.60 | 5.92 | 3.44 | 5.44 | 4.48 | 5.36 | 3.35 | 3.15 | 2.45 | 1.85 | 65.04 |
| F58 | 19.20 | 5.84 | 2.96 | 4.56 | 0.00 | 4.72 | 2.40 | 2.55 | 4.25 | 3.95 | 50.44 |
| F60 | 25.20 | 5.36 | 2.32 | 5.92 | 0.00 | 5.36 | 4.05 | 2.80 | 3.20 | 3.95 | 58.16 |
| F61 | 10.00 | 2.08 | 1.44 | 4.64 | 0.00 | 3.76 | 3.20 | 2.00 | 2.10 | 3.15 | 31.37 |
| F62 | 18.00 | 1.92 | 2.00 | 5.44 | 0.00 | 4.80 | 3.75 | 2.55 | 2.80 | 3.95 | 45.21 |
| F63 | 24.00 | 2.64 | 2.32 | 5.92 | 0.00 | 5.36 | 3.65 | 2.45 | 2.10 | 1.85 | 50.29 |
| F64 | 18.80 | 1.36 | 2.32 | 5.76 | 0.00 | 5.36 | 2.80 | 2.25 | 3.05 | 1.05 | 42.75 |
| F65 | 26.80 | 1.36 | 1.84 | 5.44 | 0.00 | 5.52 | 2.25 | 1.90 | 1.60 | 1.85 | 48.56 |
| F66 | 26.00 | 2.64 | 2.16 | 5.76 | 0.00 | 4.64 | 3.65 | 2.45 | 2.10 | 1.85 | 51.25 |
| F69 | 10.80 | 4.88 | 1.68 | 5.44 | 0.00 | 4.24 | 3.20 | 2.00 | 2.45 | 3.15 | 37.84 |
| F70 | 23.20 | 1.36 | 2.00 | 5.36 | 0.00 | 5.04 | 2.55 | 2.30 | 2.20 | 1.85 | 45.86 |
| F72 | 10.00 | 1.76 | 2.00 | 5.04 | 0.00 | 3.60 | 2.80 | 1.40 | 1.70 | 1.05 | 29.35 |
| F81 | 10.00 | 1.36 | 1.44 | 4.16 | 2.56 | 2.80 | 1.30 | 1.40 | 2.80 | 3.15 | 30.97 |
| F86 | 8.00 | 1.36 | 2.96 | 5.60 | 0.00 | 4.16 | 2.65 | 1.40 | 2.45 | 3.15 | 31.73 |
| F87 | 8.00 | 1.36 | 2.96 | 5.60 | 0.00 | 4.16 | 2.65 | 1.40 | 2.45 | 3.15 | 31.73 |
| F90 | 7.60 | 1.36 | 3.60 | 3.84 | 2.48 | 2.80 | 1.30 | 1.40 | 2.80 | 3.15 | 22.73 |
| F114 | 24.80 | 1.76 | 5.20 | 4.64 | 0.00 | 4.32 | 2.40 | 2.55 | 3.90 | 3.95 | 53.53 |
| F116 | 10.00 | 1.12 | 4.56 | 5.52 | 0.00 | 4.32 | 2.55 | 1.30 | 1.70 | 1.05 | 32.12 |
| F119 | 16.80 | 1.36 | 3.76 | 5.52 | 0.00 | 4.40 | 3.50 | 2.15 | 2.45 | 3.95 | 43.89 |
| F121 | 8.00 | 4.80 | 3.28 | 5.28 | 0.00 | 4.00 | 2.25 | 1.05 | 1.35 | 1.05 | 31.06 |
| F122 | 7.20 | 1.76 | 3.28 | 5.28 | 0.00 | 4.00 | 2.65 | 1.40 | 2.10 | 3.15 | 30.82 |
| F122A | 17.60 | 4.00 | 3.28 | 4.96 | 0.00 | 4.40 | 2.10 | 1.85 | 3.65 | 3.95 | 45.79 |
| F125 | 12.80 | 6.40 | 3.28 | 4.80 | 0.00 | 4.32 | 2.10 | 1.85 | 4.15 | 3.95 | 43.65 |
| F126 | 14.00 | 3.92 | 3.76 | 6.00 | 0.00 | 5.20 | 2.55 | 2.10 | 2.20 | 1.05 | 40.78 |
| F127 | 15.20 | 5.84 | 1.44 | 4.96 | 0.00 | 3.76 | 2.25 | 1.30 | 2.30 | 1.05 | 38.10 |

Table 5.2-2. (continued)

| WETLAND NO. | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| G1 | 7.2 | 1.36 | 3.28 | 5.28 | 0.00 | 4.00 | 2.25 | 1.20 | 1.70 | 1.05 | 27.32 |
| H1 | 22.4 | 1.36 | 2.80 | 6.16 | 0.00 | 5.12 | 3.65 | 2.15 | 2.10 | 1.85 | 47.59 |
| I1 | 17.6 | 6.40 | 2.96 | 5.04 | 0.00 | 4.00 | 2.65 | 1.85 | 3.40 | 3.95 | 47.85 |
| J1 | 4.0 | 2.88 | 2.96 | 5.04 | 0.00 | 3.60 | 2.25 | 1.55 | 3.55 | 1.05 | 26.88 |
| K1 | 12.8 | 5.36 | 1.68 | 2.88 | 2.88 | 2.00 | 1.30 | 1.20 | 1.70 | 3.95 | 35.75 |
| K2 | 22.0 | 5.68 | 2.32 | 5.92 | 0.00 | 5.36 | 4.05 | 2.80 | 2.80 | 3.95 | 54.88 |
| K3 | 18.4 | 1.76 | 1.84 | 6.00 | 0.00 | 5.04 | 4.05 | 2.80 | 2.45 | 3.15 | 45.49 |
| K4 | 16.0 | 1.36 | 1.84 | 4.96 | 0.00 | 4.40 | 2.10 | 1.60 | 3.65 | 3.95 | 39.86 |
| K5 | 11.2 | 1.36 | 1.84 | 5.44 | 0.00 | 4.32 | 2.10 | 1.40 | 3.80 | 3.15 | 34.61 |
| M1 | 14.0 | 1.36 | 1.28 | 5.12 | 0.00 | 5.92 | 2.10 | 2.00 | 2.30 | 3.15 | 37.23 |
| M2 | 10.0 | 5.04 | 1.68 | 2.96 | 0.00 | 1.76 | 0.85 | 1.15 | 1.25 | 1.05 | 25.74 |
| M3 | 16.8 | 6.64 | 1.28 | 5.68 | 0.00 | 4.64 | 2.80 | 1.90 | 2.10 | 1.85 | 43.69 |
| M4 | 9.6 | 6.24 | 1.44 | 4.72 | 0.00 | 3.76 | 2.25 | 1.30 | 2.70 | 1.05 | 33.06 |
| M5 | 20.0 | 1.76 | 1.68 | 5.44 | 0.00 | 4.24 | 3.50 | 2.45 | 2.80 | 3.95 | 45.82 |
| M6 | 13.2 | 5.36 | 1.12 | 4.48 | 0.00 | 3.92 | 2.25 | 1.40 | 1.70 | 1.05 | 34.48 |
| N1 | 19.2 | 3.04 | 2.96 | 5.20 | 0.00 | 5.20 | 2.10 | 1.85 | 3.65 | 3.95 | 47.15 |
| O1 | 23.6 | 1.36 | 3.76 | 5.52 | 0.00 | 5.92 | 3.65 | 2.60 | 2.45 | 1.85 | 50.71 |
| O3 | 13.2 | 6.24 | 2.80 | 5.84 | 0.00 | 4.32 | 3.20 | 2.15 | 2.80 | 3.15 | 43.70 |
| P1 | 16.8 | 6.80 | 2.64 | 3.92 | 4.32 | 3.76 | 2.80 | 1.90 | 2.10 | 1.05 | 46.09 |
| P2 | 22.0 | 5.84 | 2.16 | 6.08 | 0.00 | 4.96 | 3.65 | 1.70 | 2.10 | 1.05 | 49.54 |
| R1 | 16.8 | 2.64 | 3.44 | 5.60 | 0.00 | 4.64 | 3.35 | 2.25 | 1.70 | 1.85 | 42.27 |
| R1A | 20.0 | 1.92 | 3.44 | 5.44 | 4.24 | 4.80 | 3.35 | 2.25 | 1.35 | 1.05 | 47.84 |
| R3 | 35.2 | 2.56 | 3.44 | 5.52 | 3.44 | 5.92 | 3.30 | 4.25 | 3.30 | 2.90 | 69.83 |
| R5 | 32.0 | 2.24 | 3.76 | 5.92 | 4.24 | 4.72 | 4.05 | 2.80 | 3.55 | 4.75 | 68.03 |
| R7 | 12.0 | 1.76 | 2.96 | 5.92 | 0.00 | 4.56 | 3.20 | 2.00 | 2.80 | 3.15 | 38.35 |
| R7A | 21.6 | 6.40 | 3.92 | 6.48 | 0.00 | 5.76 | 2.65 | 1.90 | 1.95 | 3.15 | 53.81 |
| R8 | 17.2 | 6.96 | 2.32 | 6.00 | 0.00 | 5.52 | 2.65 | 1.90 | 1.95 | 3.15 | 47.65 |
| T1 | 16.4 | 6.40 | 5.36 | 5.44 | 0.00 | 4.40 | 2.65 | 1.70 | 3.80 | 3.15 | 49.30 |
| T2 | 25.2 | 5.36 | 5.36 | 5.68 | 0.00 | 4.72 | 2.65 | 1.90 | 3.40 | 3.95 | 58.22 |
| T3 | 19.6 | 7.36 | 4.88 | 5.44 | 0.00 | 4.80 | 2.10 | 1.60 | 1.60 | 3.15 | 50.53 |
| T4 | 36.4 | 3.44 | 7.20 | 5.60 | 4.24 | 6.40 | 3.85 | 3.80 | 2.80 | 2.90 | 76.63 |
| T5 | 18.8 | 5.44 | 3.44 | 5.44 | 0.00 | 4.56 | 3.10 | 1.85 | 2.10 | 1.05 | 45.78 |
| W1 | 28.8 | 3.36 | 7.20 | 5.76 | 4.48 | 5.76 | 3.65 | 2.80 | 2.10 | 1.85 | 65.76 |
| W2 | 29.2 | 5.36 | 6.32 | 5.68 | 4.48 | 6.16 | 3.65 | 2.45 | 2.10 | 1.85 | 67.25 |
| X2 | 14.4 | 7.28 | 1.44 | 5.04 | 0.00 | 4.00 | 2.25 | 1.30 | 2.30 | 1.05 | 39.06 |
| X3 | 26.0 | 5.36 | 2.16 | 5.76 | 0.00 | 4.64 | 3.65 | 2.45 | 2.45 | 1.85 | 54.32 |
| X4 | 12.8 | 2.88 | 1.44 | 5.44 | 0.00 | 5.20 | 1.95 | 1.75 | 2.55 | 1.05 | 35.06 |

Table 5.2-2. (continued)

| WETLAND NO. | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| Z1 | 27.20 | 2.24 | 6.48 | 6.16 | 0.00 | 5.92 | 3.10 | 2.60 | 2.55 | 1.85 | 58.10 |
| Z2 | 24.00 | 2.24 | 6.48 | 6.16 | 0.00 | 5.92 | 3.10 | 2.60 | 2.55 | 1.05 | 54.10 |
| Z3 | 17.20 | 1.76 | 6.00 | 5.84 | 0.00 | 5.52 | 2.55 | 2.30 | 2.55 | 1.05 | 44.77 |
| Z4 | 16.00 | 1.76 | 6.00 | 5.68 | 0.00 | 5.12 | 1.95 | 0.90 | 0.60 | 1.05 | 39.06 |
| Z5 | 24.80 | 6.24 | 5.84 | 6.08 | 0.00 | 5.76 | 3.50 | 3.25 | 2.95 | 3.15 | 61.57 |
| Z6 | 26.40 | 6.80 | 6.32 | 6.00 | 0.00 | 5.12 | 4.05 | 2.80 | 2.45 | 3.95 | 63.89 |
| Z7 | 19.20 | 5.04 | 5.84 | 3.76 | 2.96 | 2.96 | 1.40 | 1.45 | 0.60 | 1.05 | 47.27 |
| Z8 | 18.40 | 5.60 | 5.20 | 4.24 | 2.96 | 3.52 | 1.40 | 1.45 | 0.60 | 1.05 | 44.42 |
| Z9 | 29.20 | 6.48 | 6.80 | 5.60 | 4.48 | 5.20 | 3.65 | 2.45 | 1.70 | 1.85 | 67.41 |
| Z10 | 28.80 | 5.84 | 5.84 | 6.08 | 0.00 | 4.96 | 3.75 | 2.55 | 2.80 | 4.75 | 65.37 |
| Z11 | 23.20 | 5.68 | 5.84 | 5.60 | 0.00 | 4.32 | 4.05 | 2.80 | 2.10 | 3.15 | 56.74 |
| Z12 | 22.80 | 2.24 | 6.48 | 6.32 | 0.00 | 5.92 | 3.20 | 2.25 | 1.60 | 3.15 | 53.96 |
| Z13 | 20.80 | 1.76 | 6.00 | 6.00 | 0.00 | 5.52 | 2.65 | 1.90 | 1.60 | 3.15 | 49.38 |
| Z14 | 32.40 | 7.20 | 6.48 | 5.12 | 4.24 | 4.80 | 4.05 | 2.80 | 2.80 | 3.95 | 73.84 |
| Z15 | 24.00 | 2.24 | 6.48 | 5.84 | 0.00 | 4.80 | 4.05 | 2.45 | 2.10 | 3.15 | 55.11 |
| Z16 | 30.40 | 5.84 | 5.84 | 6.08 | 0.00 | 4.96 | 4.05 | 2.45 | 2.80 | 3.95 | 66.37 |
| Z17 | 32.80 | 6.24 | 5.36 | 5.32 | 3.44 | 4.96 | 2.55 | 2.85 | 3.90 | 1.85 | 69.27 |
| Z18 | 24.00 | 7.28 | 6.32 | 5.52 | 4.24 | 5.36 | 3.75 | 2.55 | 2.45 | 3.95 | 65.42 |
| Z19 | 23.20 | 6.48 | 6.00 | 5.60 | 0.00 | 5.44 | 3.10 | 2.15 | 2.10 | 1.85 | 55.92 |
| Z20 | 28.00 | 6.08 | 4.72 | 6.00 | 3.68 | 6.32 | 3.50 | 3.25 | 3.30 | 3.95 | 68.80 |
| Z21 | 16.80 | 1.76 | 4.40 | 5.52 | 0.00 | 4.40 | 3.50 | 2.15 | 2.80 | 3.95 | 45.28 |
| Z22 | 29.20 | 5.84 | 4.24 | 6.08 | 0.00 | 5.76 | 3.50 | 2.95 | 3.65 | 4.75 | 65.97 |
| Z23 | 25.20 | 5.68 | 6.32 | 5.76 | 4.24 | 5.12 | 3.65 | 3.40 | 2.10 | 1.05 | 62.52 |
| Z24 | 24.00 | 4.88 | 6.32 | 5.44 | 0.00 | 4.80 | 2.65 | 1.90 | 2.30 | 3.95 | 56.24 |
| Z25 | 32.00 | 7.36 | 7.20 | 6.00 | 4.80 | 5.60 | 3.20 | 3.15 | 4.15 | 3.95 | 77.41 |
| Z26 | 20.00 | 1.76 | 6.00 | 5.44 | 0.00 | 4.40 | 2.25 | 1.60 | 3.40 | 1.85 | 46.70 |
| Z27 | 26.80 | 2.24 | 5.68 | 5.92 | 0.00 | 5.60 | 2.65 | 1.90 | 2.30 | 3.95 | 57.04 |
| Z28 | 31.20 | 5.68 | 5.84 | 5.76 | 0.00 | 4.64 | 2.80 | 1.90 | 3.80 | 2.60 | 64.22 |
| Z29 | 27.20 | 6.24 | 5.84 | 5.92 | 0.00 | 4.96 | 2.80 | 2.25 | 3.05 | 1.85 | 60.11 |
| Z30 | 32.40 | 6.80 | 6.32 | 5.84 | 0.00 | 5.60 | 3.65 | 2.45 | 2.45 | 2.60 | 68.11 |
| Z31 | 27.60 | 7.52 | 6.16 | 6.08 | 4.48 | 6.40 | 3.65 | 3.15 | 2.70 | 5.25 | 72.99 |

## TOP TEN WETLANDS IN THE STUDY AREA

The unnormalized functional model results of the highest scoring 10 wetlands are presented in Table 5.2-4. Wetland F28 had been incorrectly inventoried and subsequent checks indicated that F28 was within 100 feet of a road. This increased the social-economic functions and greatly increased the unnormalized total score of this wetland. It became the sixth highest ranked score of all 158 wetlands assessed. As a result, wetland R5, ranked tenth highest in the August 1983 Supplemental Wetlands Assessment Report, was removed from the list of ten highest scoring wetlands. The "Score Range" and "Score Mean" for several functional models also changed in Table 5.2-4 as a result of the wetland inventory data changes. Attached Table 5.2-4 replaces the original Table 5.2-4 presented in the August 1983 Supplemental Wetlands Assessment Report.

Table 5.2-4. Unnormalized results of the 10 functional models for the top 10 wetlands in the study area.

| | | FUNCTIONAL MODELS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WETLAND NO. | WETLAND TYPE | BIOLOGICAL FUNCTION | HYDROLOGIC SUPPORT FUNCTION | GROUNDWATER FUNCTION | STORM AND FLOODWATER STORAGE FUNCTION | SHORELINE PROTECTION FUNCTION | WATER QUALITY MAINTENANCE FUNCTION | CULTURAL AND ECONOMIC FUNCTION | RECREATIONAL FUNCTION | AESTHETICS FUNCTION | EDUCATION FUNCTION | TOTAL |
| T4 | CS[a] | 118 | 66 | 64 | 97 | 17 | 86 | 54 | 55 | 37 | 14 | 608 |
| F37 | SM[b] | 121 | 65 | 47 | 98 | 20 | 86 | 46 | 61 | 38 | 14 | 596 |
| Z25 | B[c] | 108 | 62 | 64 | 102 | 22 | 78 | 45 | 47 | 48 | 18 | 594 |
| F19 | SM[d] | 105 | 58 | 46 | 97 | 22 | 86 | 46 | 64 | 50 | 14 | 588 |
| Z31 | SS | 98 | 63 | 58 | 103 | 19 | 86 | 51 | 47 | 36 | 23 | 584 |
| F28 | B | 110 | 61 | 43 | 103 | 21 | 74 | 45 | 50 | 53 | 18 | 578 |
| F23 | SM | 104 | 62 | 44 | 106 | 22 | 89 | 43 | 56 | 38 | 10 | 574 |
| R3 | SM | 116 | 61 | 41 | 96 | 11 | 81 | 46 | 61 | 41 | 14 | 568 |
| Z14 | CS | 109 | 60 | 60 | 90 | 17 | 70 | 57 | 42 | 37 | 18 | 560 |
| F2 | SM | 131 | 55 | 54 | 81 | 11 | 77 | 43 | 59 | 38 | 10 | 559 |
| Score Range | | 44-131 | 6-66 | 27-64 | 56-109 | 0-29 | 33-89 | 11-57 | 18-64 | 16-53 | 7-23 | 259-608 |
| Score Mean | | 78.7 | 31.3 | 41.9 | 91.9 | 3.6 | 67.9 | 39.3 | 33.7 | 33.7 | 11.9 | 433.4 |
| Model Range | | 29-158 | 6-70 | 20-68 | 31-123 | 3-32 | 18-98 | 11-57 | 11-74 | 9-66 | 7-24 | 145-700 |
| Model Mean | | 93 | 38 | 44 | 77 | 17 | 58 | 34 | 42 | 37 | 15 | 457 |

[a]Conifer swamp; [b]Shallow marsh; [c]Bog; [d]Shrub swamp

## TEXT CHANGES

Corrections in the text, as listed below, have resulted from the aforementioned changes in wetland inventory data.

1. Page 5.1-4, paragraph 2, the first sentence should be revised to the following (changes are underlined) and two new sentences should be added after the first sentence as indicated below:

   Hydrologically, Z20 and Z22 were perched wetlands and both occurred in a semi-closed basin having an ephemeral outlet stream. Wetland Z22 had an ephemeral outlet discharging to wetland Z20 which in turn discharged to wetland Z17. The open water portion of wetland Z22 is listed as Lake 25-11, T35N, R12E, in the "Surface Waters of Forest County." Wetland Z17 was a water table...

2. Page 5.1-4, paragraph 2, the last two sentences should be revised to the following (changes are underlined):

   Wetlands Z17, Z20 and Z22 were part of a riparian system. Wetland Z22 was a perched wetland and had a moderate watershed value, whereas Z17, a water table wetland, had higher watershed functions.

3. Page 5.1-6, paragraph 1, insert the following after the first sentence:

   Wetland Z7 is the headwaters of stream 24-14, T35N, R12E.

4. Page 5.1-6, paragraph 2, the first sentence should be revised to the following (changes are underlined):

   Wetlands Z10 and Z18 (listed as Hoffman Spring in the "Surface Water of Forest County") were both predominantly deciduous swamps, but smaller components of shrub swamp and shallow marsh were also present in wetland Z10.

5. Page 5.1-9, paragraph 1, insert the following after the first sentence:

   Wetland Z9 is the headwaters of stream 24-15, T35N, R12E.

6. Page 5.1-9, paragraph 1, insert the following after the third sentence:

The open water portion of wetland Z16 is listed in the "Surface Waters of Forest County" as Lake 17-16, T35N, R13E.

7. Page 5.1-11, paragraph 4, the first sentence should be revised to the following (changes are underlined):

Wetland Z23 was primarily a coniferous swamp which was part of a much larger wetland that drained both into Rolling Stone Lake and Mole Lake.

8. Page 5.1-11, paragraph 4, the second sentence should be revised to the following (changes are underlined):

This wetland contained an overstory having a predominance of black spruce and tamarack.

9. Page 5.1-12, paragraph 1, the third sentence should be revised to the following (changes are underlined):

Wetland Z23 had a high water balance and high watershed functions, since it contributed water to both Mole Lake and Rolling Stone Lake (to the latter via Pickerel Creek).

10. Page 5.2-1, paragraph 2, sentence 3 should be revised to the following (changes are underlined):

Model ranges and means and the range of the actual scores for the supplemental wetlands and the previously assessed 127 wetlands are presented in Table 5.2-1.

11. Page 5.3-3, paragraph 2, the first two sentences should be revised to the following (changes are underlined):

For the hydrologic support function, 21 wetlands had scores above or equal to the model mean (Table 5.2-1). They consisted of eight conifer swamps (Z6, Z9, Z11, Z14, Z16, Z19, Z23 and Z30), four marshes (Z5, Z17, Z20 and Z22), three bogs (Z25, Z28 and Z29), four deciduous swamps (Z7, Z8, Z10 and Z18) and two shrub swamps (Z24 and Z31), all of which were part of riparian systems tributary to or part of the Swamp Creek wetlands system, except Z23 which was tributary to Pickerel Creek and Mole Lake and Z25 which was connected to Mole Lake.

12. Page 5.3-6, paragraph 2, the first sentence should be revised to the following (changes are underlined):

The supplemental wetlands had a mean total actual score of 495 well above the previously assessed 127 wetlands' mean of 420 (NAI and IEP, 1982).

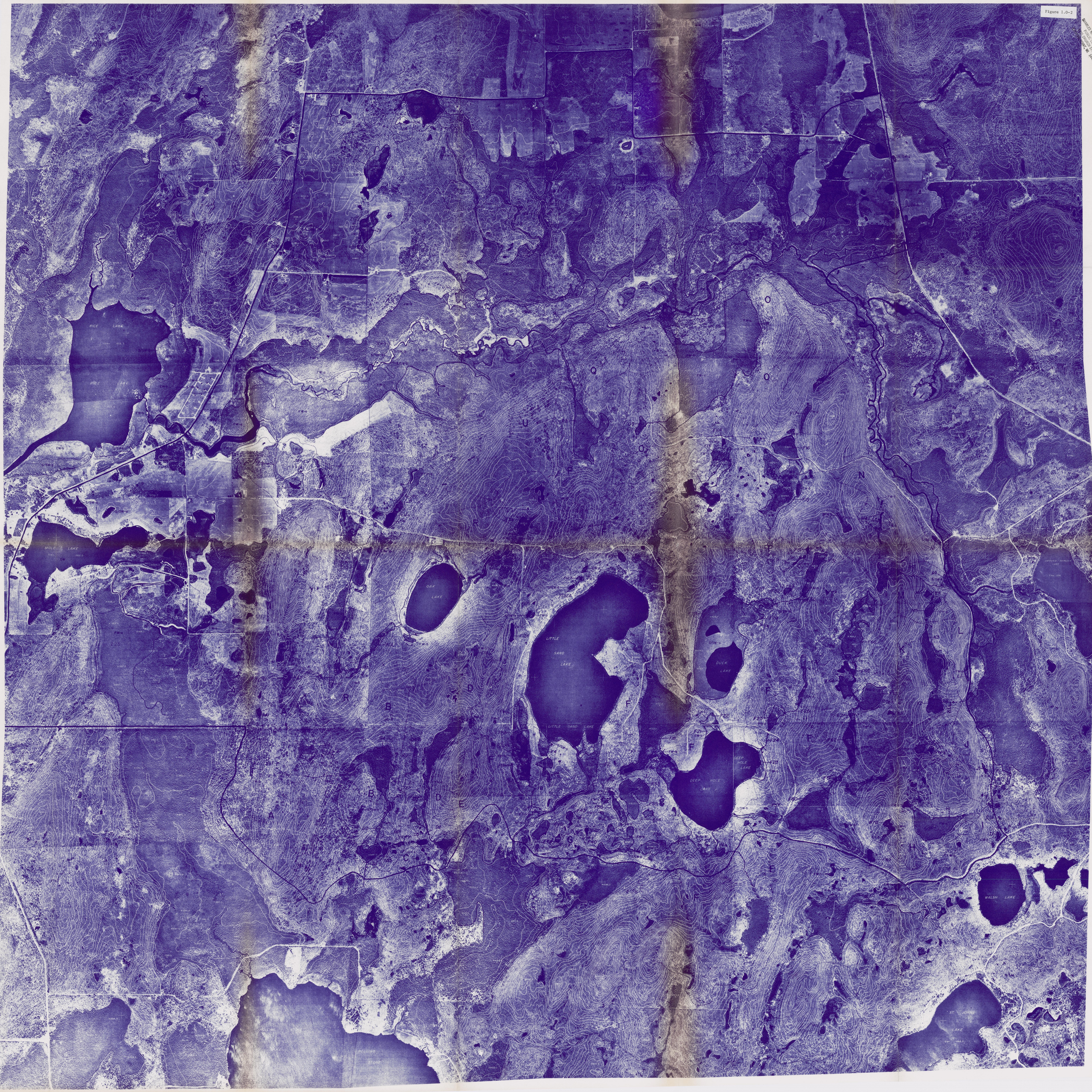


Figure 1.0-2

CHARLES M. WHITE MEMORIAL
PUBLIC LIBRARY
1325 CHURCH STREET
STEVENS POINT, WI 54481

Figure 1.0-2a

CHARLES M. WHITE MANORIAL
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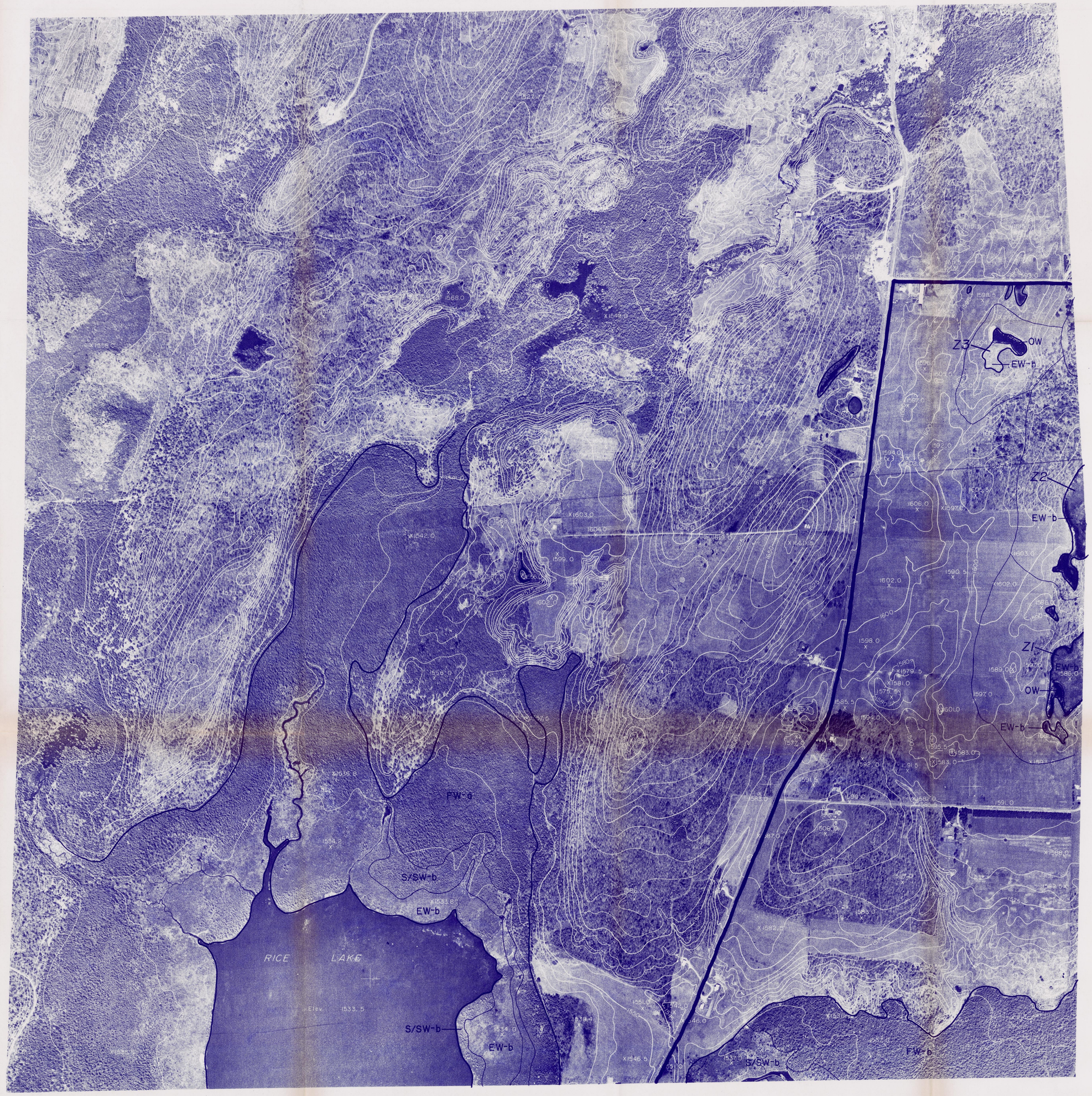
STEVENS POINT, WI 54481

E 2,262,000 E 2,264,000 E 2,266,000 E 2,268,000 E 2,270,000

N 130,000 N 128,000 N 126,000 N 124,000 N 122,000




N

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

0 400 800 1200 1600 2000

SCALE 1" = 400'

H WATERSHED TITLE

F-60 WETLAND TITLE

S/SW-a SCRUB-SHRUB WETLAND-BOG
S/SW-b SCRUB-SHRUB WETLAND-SHRUB SWAMP
FW-a FORESTED WETLAND-CONIFEROUS
FW-b FORESTED WETLAND-DECIDUOUS
EW-b EMERGENT WETLAND-PERMANENT

STUDY AREA BOUNDARY
WATERSHED BOUNDARY
WETLAND FLAG
WETLAND DIVIDER

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR FIVE FOOT CONTOUR INTERVAL MAPPING.

CONTOUR INTERVAL FIVE FOOT BASED ON MEAN SEA LEVEL DATUM

HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.

DATE OF PHOTOGRAPHY: APRIL 28, 1976

AERO-METRIC ENGINEERING PROJECT NO. 047613

PREPARED BY
AERO-METRIC ENGINEERING, INC.
SHEBOYGAN, WISCONSIN

TOPOGRAPHIC MAPPING
SECTIONS 14 & 15 T35N, R12E
SECTIONS 22 & 23 T35N, R12E
FOREST COUNTY, WISCONSIN

Figure 1.0-2b

E 2,272,000 E 2,274,000 E 2,276,000 E 2,278,000 E 2,280,000

R12E R13E

N 130,000 N 128,000 N 126,000 N 124,000 N 122,000

LAKE METONGA

OW S/SW-b Z5 EW-a Z4 FW-b S/SW-b EW-b Z10 FW-a OW

EW-b Z2 FW-a Z6 Z7 Z8 Z9 U S/SW-b Z12 Z13 FW-a Z14

EW-b Z1 Z11 Z15 W2 W1

R12E R13E

H WATERSHED TITLE

F-60 WETLAND TITLE

S/SW-a SCRUB-SHRUB WETLAND-BOG

S/SW-b SCRUB-SHRUB WETLAND-SHRUB SWAMP

FW-a FORESTED WETLAND-CONIFEROUS

FW-b FORESTED WETLAND-DECIDUOUS

EW-b EMERGENT WETLAND-PERMANENT

STUDY AREA BOUNDARY

WATERSHED BOUNDARY

WETLAND FLAG

WETLAND DIVIDER

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

0 400 800 1200 1600 2000

SCALE 1" = 400'

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR FIVE FOOT CONTOUR INTERVAL MAPPING.

CONTOUR INTERVAL FIVE FOOT BASED ON MEAN SEA LEVEL DATUM

HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.

DATE OF PHOTOGRAPHY: APRIL 28, 1976

AERO-METRIC ENGINEERING PROJECT NO. 047613

PREPARED BY
AERO-METRIC ENGINEERING, INC.
SHEBOYGAN, WISCONSIN

TOPOGRAPHIC MAPPING
SECTIONS 13 & 24 T35N, R12E
SECTIONS 18 & 19 T35N, R13E
FOREST COUNTY, WISCONSIN

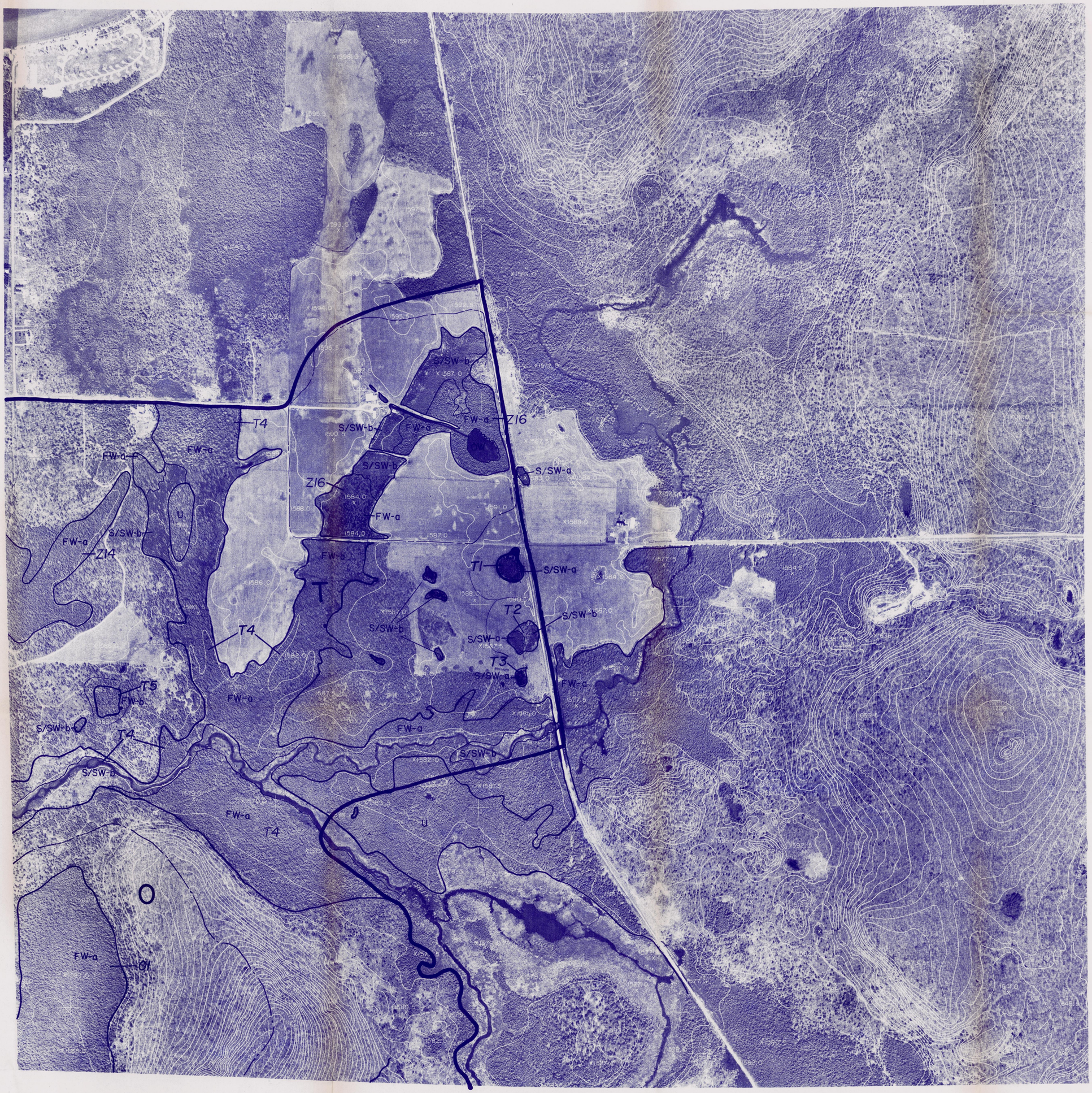
BARKLEY & WHITE ASSOCIATES
PROFESSIONAL CONSULTANTS
STEVENS POINT, WI 54481

Figure 1.0-2c

CHARLES W. WHITE MEMORIAL
PUBLIC LIBRARY
1325 CHURCH STREET
STEVENS POINT, WI 54481

E 2,282,000 E 2,284,000 E 2,286,000 E 2,288,000 E 2,290,000

N 130,000 N 128,000 N 126,000 N 124,000 N 122,000




N

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

H WATERSHED TITLE
F-60 WETLAND TITLE
S/SW-b SCRUB-SHRUB WETLAND-BOG
S/SW-b SCRUB-SHRUB WETLAND-SHRUB SWAMP
FW-a FORESTED WETLAND-CONIFEROUS
FW-b FORESTED WETLAND-DECIDUOUS
EW-b EMERGENT WETLAND-PERMANENT
STUDY AREA BOUNDARY
WATERSHED BOUNDARY
WETLAND FLAG
WETLAND DIVIDER

0 400 800 1200 1600 2000

SCALE 1" = 400'

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR FIVE FOOT CONTOUR INTERVAL MAPPING.

CONTOUR INTERVAL FIVE FOOT BASED ON MEAN SEA LEVEL DATUM

HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.

DATE OF PHOTOGRAPHY: APRIL 28, 1976

AERO-METRIC ENGINEERING PROJECT NO. 047613

PREPARED BY
AERO-METRIC ENGINEERING, INC.
SHEBOYGAN, WISCONSIN

TOPOGRAPHIC MAPPING
SECTIONS 16 & 17 T35N, R13E
SECTIONS 20 & 21 T35N, R13E
FOREST COUNTY, WISCONSIN

FIGURE 1.0-2d

CHARLES H. WHITE MEMORIAL
PUBLIC LIBRARY
1225 CHURCH STREET
STEVENS POINT, WI 54481

E 2,262,000 E 2,264,000 E 2,266,000 E 2,268,000 E 2,270,000

N 120,000 N 118,000 N 116,000 N 114,000 N 112,000

RICE LAKE
MOLE LAKE
Elev. 1552.0
OW
SWAMP
CREEK
EW-b
S/SW-b
S/SW-a
FW-a
FW-b
Z18
Z19
Z20
Z23
Z24
Z25
Z26
A1
A2
R
RIA
RI

FOREST CO. T35N
LANGLADE CO. T34N

FOREST CO. T35N
LANGLADE CO. T34N

| | |
|---|---|
| H | WATERSHED TITLE |
| F-60 | WETLAND TITLE |
| S/SW-a | SCRUB-SHRUB WETLAND-BOG |
| S/SW-b | SCRUB-SHRUB WETLAND-SHRUB SWAMP |
| FW-a | FORESTED WETLAND- CONIFEROUS |
| FW-b | FORESTED WETLAND-- DECIDUOUS |
| EW-b | EMERGENT WETLAND-PERMANENT |

STUDY AREA BOUNDARY
WATERSHED BOUNDARY
WETLAND FLAG
WETLAND DIVIDER

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

0 400 800 1200 1600 2000

SCALE 1" = 400'

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR FIVE FOOT CONTOUR INTERVAL MAPPING.

CONTOUR INTERVAL FIVE FOOT BASED ON MEAN SEA LEVEL DATUM

HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.

DATE OF PHOTOGRAPHY APRIL 28, 1976

AERO-METRIC ENGINEERING PROJECT NO. 047613

PREPARED BY
AERO-METRIC ENGINEERING, INC.
SHEBOYGAN, WISCONSIN

TOPOGRAPHIC MAPPING
SECTIONS 26 & 27 T35N, R12E
SECTIONS 34 & 35 T35N, R12E
FOREST COUNTY, WISCONSIN

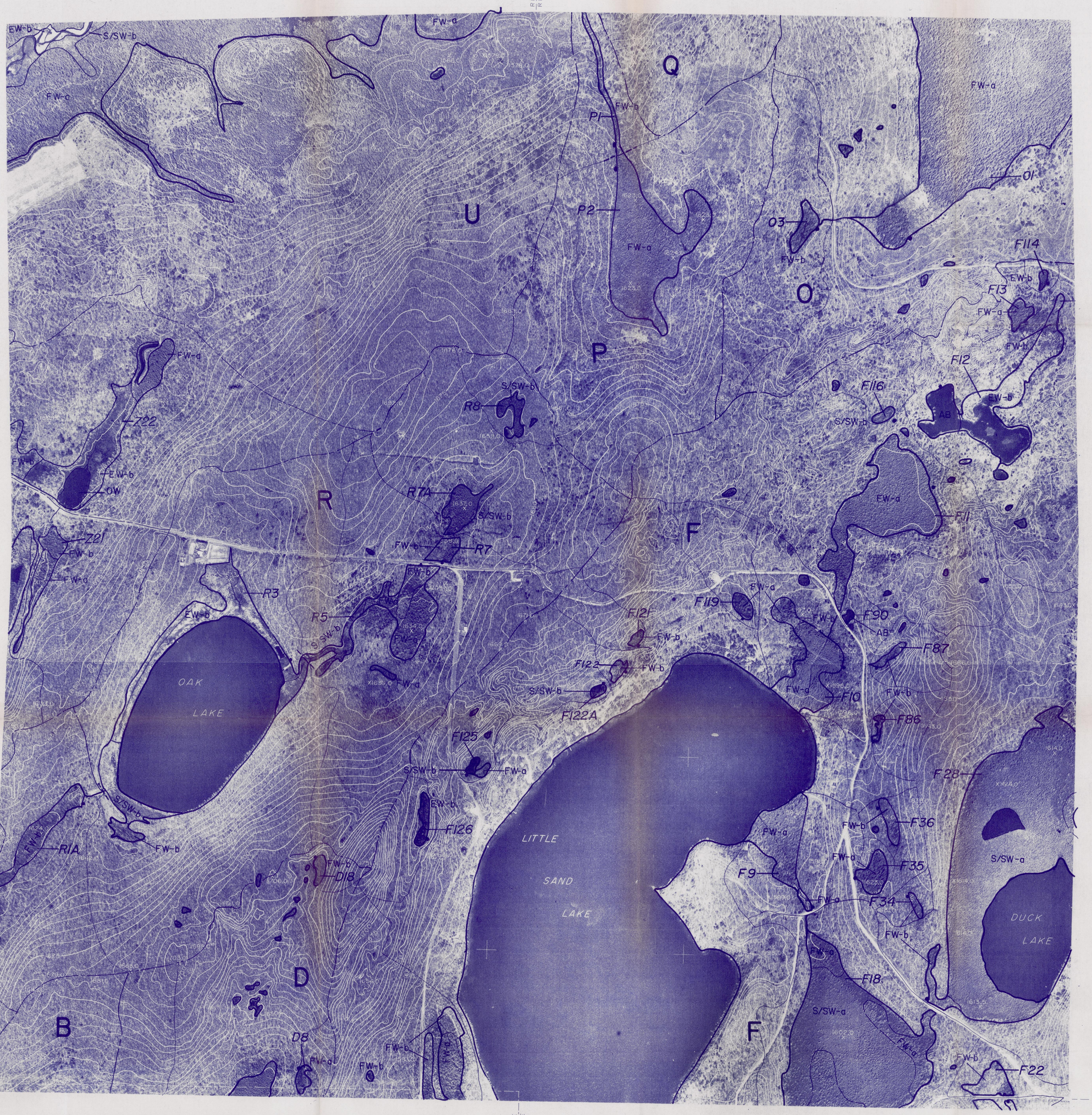
FIG. 1.0-2e

DIRECTOR'S WHITE MEMORIAL
REFERENCE LIBRARY
STEVENS POINT, WI 54481

E 2,272,000 E 2,274,000 E 2,276,000 E 2,278,000 E 2,280,000

R12E | R13E

N 120,000 N 118,000 N 116,000 N 114,000 N 112,000




FOREST CO. T35N
LANGLADE CO. T34N

T 35 N
T 34 N

LANGLADE CO. R12E
FOREST CO. R13E

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

H WATERSHED TITLE
F-60 WETLAND TITLE
S/SW-a SCRUB-SHRUB WETLAND-BOG
S/SW-b SCRUB-SHRUB WETLAND-SHRUB SWAMP
FW-a FORESTED WETLAND-CONIFEROUS
FW-b FORESTED WETLAND-DECIDUOUS
EW-b EMERGENT WETLAND-PERMANENT

WATERSHED BOUNDARY
WETLAND FLAG
WETLAND DIVIDER

0 400 800 1200 1600 2000
SCALE 1" = 400'

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR FIVE FOOT CONTOUR INTERVAL MAPPING.

CONTOUR INTERVAL FIVE FOOT BASED ON MEAN SEA LEVEL DATUM

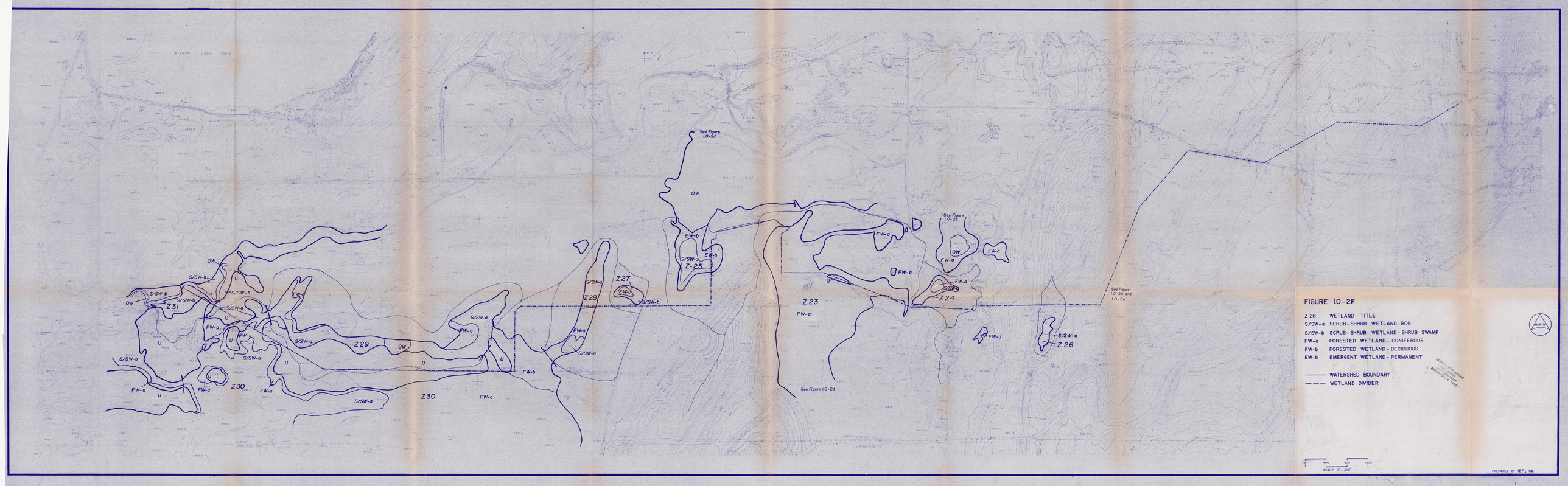
HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE COORDINATE SYSTEM.

DATE OF PHOTOGRAPHY APRIL 28, 1976

AERO-METRIC ENGINEERING PROJECT NO. 047613

PREPARED BY
AERO-METRIC ENGINEERING, INC.
SHEBOYGAN, WISCONSIN

TOPOGRAPHIC MAPPING
SECTIONS 25 & 36 T35N, R12E
SECTIONS 30 & 31 T35N, R13E
FOREST COUNTY, WISCONSIN


See Figure I.O-2d
OW
EW-b
S/SW-b
Z-25
S/SW-a
Z27
Z28
EW-b
S/SW-b
S/SW-a
FW-a
FW-b
Z29
Z30
Z31
U
See Figure I.O-2d
See Figure I.O-2g
See Figure I.O-2d and I.O-2e
Z23
Z24
Z26
S/SW-a
FW-a
OW
FW-a
S/SW-a
FW-a
FW-a
S/SW-a
FW-a
FW-a
FW-a
FW-a
S/SW-a
FW-a
FW-a
FW-a
F

# APPENDIX A

# WETLAND INVENTORY REPORTS

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER 1
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 4.32

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 3.65 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| 0.67 | | OTHER Open Water |
| 4.32 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | |
| Juncus effusus | | ✓ | |
| (Soft Rush) | | | |
| Scirpus atrocinctus | ✓ | | |
| (Bulrush) | | | |
| S. cyperinus | ✓ | | |
| (Wool-grass) | | | |
| Typha latifolia | ✓ | | |
| (Cattail) | | | |
| Glyceria canadensis | | ✓ | |
| (Rattlesnake Grass) | | | |
| Alnus rugosa | | ✓ | |
| (Speckled Alder) | | | |
| Epilobium glandulosum | | ✓ | |
| (Willow-herb) | | | |
| Carex atherodes | | ✓ | |
| (Sedge) | | | |
| Salix nigra | ✓ | | |
| (Black Willow) | | | |
| Carex crinita | | ✓ | |
| (Sedge) | | | |
| Campanula aparinoides | ✓ | | |
| (Marsh Bluebell) | | | |
| Chamaedaphne calyculata | | ✓ | |
| (Leatherleaf) | | | |

## inventory

number 2 1

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ■ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ UnGrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sapling
  - ■ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ☐ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ■ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ☐ Shrub Swamp
- ☐ Wooded Swamp
- ☐ Bog
- ☐ Other _____

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ■ 2
- ☐ 1

Subclass Richness (Lateral Diversity)
- ☐ 10
- ☐ 6-9
- ☐ 4-5
- ■ 2-3
- ☐ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ■ 90% of 2 or more of Listed Types
- ☐ 50-90% of 2 or more; 90% of 1
- ☐ 50% of 1 or more of Listed Types

Cover Type
- ☐ 26-75% Scattered
- ☐ 26-75% Peripheral
- ☐ 75% or <25% Scattered
- ■ 100% Cover; 75% or <25% Peripheral

Percent Open Water
- ☐ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ■ Medium
- ☐ High

Proportion of Wildlife Food Plants
- ☐ Low
- ☐ Moderate
- ■ High

Vegetative Density
- ■ High
- ☐ Moderate
- ☐ Low

Wetland Juxtaposition
- ☐ Highly Favorable
- ☐ Moderately Favorable
- ■ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other _____

## Topographical Elements

Topographic Configuration
- ■ Closed Basin
- ☐ Semi-closed Basin
- ☐ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ■ Upper
- ☐ Intermediate
- ☐ Lower

## Geological Elements

Superficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High >40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ☐ Condition 4
- ☐ Condition 5
- ■ Condition 6

Hydrologic Connection
- ☐ Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ■ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

Size
- ■ Large >6.4 acres
- ☐ Medium 1.1-6.4
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent wetland Borrowing after Water
- ☐ 33%
- ☐ 34-66%
- ☐ 67-100%
- ■ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 1000 ft.
- ☐ Under 1000 ft.

Depth of Lake
- ☐ Over 6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ☐ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ☐ Within 100 ft of Road
- ■ Access by Passable Waterway
- ☐ Isolated

Surrounding Population Density
- ☐ >1 Person/acre (>320/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ <.5 p/a (<320/mi²)

Local Scarcity
- ☐ 200 ft to nearest similar type
- ■ 201 to 1320 ft to nearest similar type
- ☐ 1320 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 2
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S) _____

ACREAGE 14.70

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 14.70 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 14.70 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex sp. | | | ✓ |
| (Sedge) | | | |
| Epilobium leptophyllum | | ✓ | |
| (Willow-herb) | | | |
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | |
| Salix nigra | | ✓ | |
| (Black Willow) | | | |
| S. bebbiana | ✓ | | |
| (Long-beaked Willow) | | | |
| Glyceria canadensis | | ✓ | |
| (Rattlesnake Grass) | | | |
| Chamaedaphne calyculata | | ✓ | |
| (Leatherleaf) | | | |
| Carex crinita | | ✓ | |
| (Sedge) | | | |

## inventory

number 22

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- <50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 76% or >76 Scattered
- 100% Covers, 75% or >75% Peripheral

Percent Open Water
- 0-30%
- 33-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- High

Interspersion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Sustainability
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Open/Closed Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Peat
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Siliceous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 42,000 gal/day/ft
- High >42,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

## Social-economical Elements

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1.1 acre

Dominant Surficial Material
- Peat
- Muck
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Dominant Wetland Bounding
- Open water
- Road
- Dike
- Upland
- Shrub border
- Wooded Border

Beaver Activity
- Yes
- No

Fetch
- 1 mile or more
- 1/2 mile to 1 mile
- 1/4 mile to 1/2 mile
- Less than 1/4 mile

Distance to Lake
- Over 1 mile
- 1/2 mile to 1 mile
- Less than 1/2 mile

Social Significance
- Educational Potential
- Consumptive Use
- Aesthetics

Institutional Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable waterway
- Isolated

Surrounding Population Density
- Urban (>2,500/sq. mi.)
- Suburban (430-2,500/sq. mi.)
- Rural (<320/sq. mi.)

Local Scarcity
- 100 ft to nearest similar type
- 101 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 3
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 2.07

| ACREAGE | PERCENT | |
|---|---|---|
| 1.18 | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| 0.89 | | OTHER Open Water |
| 2.07 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Scirpus cyperinus | | | ✓ |
| (Wool-grass) | | | |
| Polygonum sagittatum | | ✓ | |
| (Arrow-leaved Tearthumb) | | | |
| Carex spp. | | ✓ | |
| (Sedge) | | | |

## inventory

number Z 3

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
Stream or Bronkside Wetland
Open Fresh Water
Vegetated Subclass
Non Vegetated Subclass
Deep Fresh Marsh
Dead Woody
Shrub
Sub-Shrub
Robust
Narrow-Leaved
Broad-Leaved
Shallow Fresh Marsh
Robust
■ Narrow-Leaved
Broad-Leaved
Floating-Leaved
Flood Plain/Flats
Emergent
Shrubs and Trees
Wet Meadow
Ungrazed
Grazed
Shrub Swamp
Sapling
Bushy
Compact
Aquatic
Wooded Swamp
Deciduous
Evergreen
Bog
Shrub
Wooded

## Ecological Elements

Dominant Wetland Class
Stream or Bronkside Wetland
Open Fresh Water
Deep Fresh Marsh
■ Shallow Fresh Marsh
Yearly Flooded Flood Plain
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog
Other

Wetland Class Richness
5
4
3
2
■ 1

Subclass Richness (Lateral Diversity)
10
6-9
4-5
2-3
■ 1

Vegetative Interspersion
High
Moderate
■ Low

Surrounding Habitat
90% of 2 or more of Listed Types
50-90% of 3 or more; 90% of 1
50% of 1 or more of Listed Types

Cover Type
26-75% Scattered
26-75% Peripheral
75% or 25% Scattered
■ 100% Cover; 75% or 25% Peripheral

Percent Open Water
■ 0-33%
34-66%
67-95%
96-100%

Vegetative Species Richness
■ Low
Medium
High

Proportion of Wildlife Food Plants
■ Low
Moderate
High

Vegetative Density
■ High
Moderate
Low

Wetland Juxtaposition
Highly Favorable
Moderately Favorable
■ Unfavorable

## Special Elements

Aquatic Study Area
Sanctuary or Refuge
Wildlife Management Area
Fisheries Management Area
Educational Study Area
Historical Area
Other

## Topographical Elements

Topographic Configuration
■ Closed Basin
Semi-closed Basin
Valley
Hillside

Wetland Gradient
■ Slight 0-3%
Steep 3%

Surrounding Slopes
■ Slight 0-3%
Steep 3%

Topographic Position in Watershed
■ Upper
Intermediate
Lower

## Geological Elements

Surficial Material
Till
■ Stratified Sand and Gravel
Stratified Fine Sand and Silt
Alluvium

Bedrock
■ Igneous and Metamorphic
Sedimentary

Organic Material
Absent
■ High Permeability
Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

## Hydrological Elements

Hydrologic Position
Perched Wetland
■ Water Table Wetland
Water Table/Artesian Wetland
Artesian Wetland

Transmissivity of Aquifer
Low <10,000 gal/day/ft
■ Moderate 10,000 - 40,000 gal/day/ft
High >40,000 gal/day/ft

Dominant Hydrologic Type
Condition 1
Condition 2
Condition 3
Condition 4
Condition 5
■ Condition 6

Hydrologic Connection
■ Not Part of Riparian System
Part of Riparian System

Water Level Fluctuation
High
■ Low
Vernal Pool

Groundwater Outflow
■ Absent
Present

Inlet
■ Absent
Present, from wetland ___
Perennial
Ephemeral

Inlet
Absent
Present, from wetland ___
Perennial
Ephemeral

Inlet
Absent
Present, from wetland ___
Perennial
Ephemeral

Size
Large >4.6 acres
■ Medium 1.1-4.5
Small <1 acre

Surficial Geologic Material
of watershed
Till
■ Stratified sand and gravel
Stratified fine sand and silt
Alluvium

Percent Wetland Bordering
Open water
<33%
34-66%
■ 67-100%
Does not border

Legal Access
Yes
■ No

Fetch
Over 2000 ft.
■ under 2000 ft.

Depth of Lake
Deep >6 ft.
■ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
Connected to a Small Stream
Connected to a River
Connected to a Lake
Connected to a Combination

Access to Public
Within 100 ft of Road
■ Access by Passable Waterway
Isolated

Surrounding Population Density
>1 person/acre (>320/mi²)
■ 0.5 - 1.9 p/a (430-1220/mi²)
<.5 p/a (<320/mi²)

Local Scarcity
200 ft to nearest similar type
■ 201 to 1000 ft to nearest similar type
1000 ft to nearest similar type

Known Crop Value or Potential
■ None
Supports 1 family for part of year
Completely supports 1 family
Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 4
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 1.50

| ACREAGE | PERCENT | |
|---|---|---|
| 1.16 | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| 0.34 | | OTHER Open Water |
| 1.50 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Calamagrostis canadensis | | | ✓ |
| (Blue-joint Grass) | | | |
| Populus tremuloides | ✓ | | |
| (Quaking Aspen) | | | |
| Salix nigra | ✓ | | |
| (Black Willow) | | | |
| Spiraea latifolia | ✓ | | |
| (Meadow-sweet) | | | |
| Carex scoparia | | ✓ | |
| (Sedge) | | | |
| Agrostis alba | | ✓ | |
| (Bentgrass) | | | |
| Polygonum hydropiper | | ✓ | |
| (Common Smartweed) | | | |
| Eleocharis obtusa | | ✓ | |
| (Spike-Rush) | | | |
| Glyceria borealis | ✓ | | |
| (Float-Grass) | | | |
| Bidens connata | | ✓ | |
| (Beggar-ticks) | | | |
| Echinochloa sp. | ✓ | | |
| (Barnyard Grass) | | | |
| Glyceria grandis | ✓ | | |
| (Reed-meadow Grass) | | | |
| G. canadensis | ✓ | | |
| (Rattlesnake Grass) | | | |
| Carex atherodes | | ✓ | |
| (Sedge) | | | |
| Poa palustris | ✓ | | |
| (Fowl-meadow Grass) | | | |
| Mentha sp. | ✓ | | |
| (Mint) | | | |

## inventory

number Z 4

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - [ ] Vegetated Subclass
  - [ ] Non Vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody
  - [ ] Shrub
  - [ ] Sub-Shrub
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
- Shallow Fresh Marsh
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
  - [ ] Floating-Leaved
- Flood Plain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [ ] Ungrazed
  - [ ] Grazed
- Shrub Swamp
  - [ ] Sapling
  - [ ] Bushy
  - [ ] Compact
  - [ ] Aquatic
- Wooded Swamp
  - [ ] Deciduous
  - [ ] Evergreen
- Bog
  - [ ] Shrub
  - [ ] Wooded

### Ecological Elements

Dominant Wetland Class
- [ ] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [ ] Shallow Fresh Marsh
- [ ] Yearly Flooded Flood Plain
- [■] Wet Meadow
- [ ] Shrub Swamp
- [ ] Wooded Swamp
- [ ] Bog
- [ ] Other _____

Wetland Class Richness
- [ ] 5
- [ ] 4
- [ ] 3
- [ ] 2
- [■] 1

Subclass Richness (Lateral Diversity)
- [ ] 10
- [ ] 6-9
- [ ] 4-5
- [ ] 2-3
- [■] 1

Vegetative Interspersion
- [ ] High
- [ ] Moderate
- [■] Low

Surrounding Habitat
- [ ] >90% of 2 or more of Listed Types
- [■] 50-90% of 1 or more; 90% of 1
- [ ] <50% of 1 or more of Listed Types

Cover Type
- [ ] 26-75% Scattered
- [ ] 26-75% Peripheral
- [ ] 75% or <25% Scattered
- [■] >100% Cover, 75% or <25% Peripheral

Percent Open Water
- [■] 0-30%
- [ ] 34-66%
- [ ] 67-95%
- [ ] 96-100%

Vegetative Species Richness
- [ ] Low
- [ ] Medium
- [■] High

Proportion of Wildlife Food Plants
- [ ] Low
- [ ] Moderate
- [■] High

Vegetative Density
- [■] High
- [ ] Moderate
- [ ] Low

Wetland Juxtaposition
- [ ] Highly Favorable
- [■] Moderately Favorable
- [ ] Unfavorable

### Special Elements

- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other _____

### Topographical Elements

Topographic Configuration
- [■] Closed Basin
- [ ] Semi-Closed Basin
- [ ] Valley
- [ ] Hillside

Wetland Gradient
- [■] Slight 0-3%
- [ ] Steep 3%

Surrounding Slopes
- [■] Slight 0-3%
- [ ] Steep 3%

Topographic Position in Watershed
- [■] Upper
- [ ] Intermediate
- [ ] Lower

### Geological Elements

Surficial Material
- [ ] Till
- [■] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Bedrock
- [■] Igneous and Metamorphic
- [ ] Sedimentary

Organic Material
- [ ] Absent
- [■] High Permeability
- [ ] Low Permeability

### Hydrological Elements

Hydrologic Position
- [ ] Perched Wetland
- [■] Water Table Wetland
- [ ] Water Table/Artesian Wetland
- [ ] Artesian Wetland

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [■] Moderate 10,000 - 40,000 gal/day/ft
- [ ] High >40,000 gal/day/ft

Dominant Hydrologic Type
- [ ] Condition 1
- [ ] Condition 2
- [ ] Condition 3
- [ ] Condition 4
- [ ] Condition 5
- [■] Condition 6

Hydrologic Connection
- [■] Not Part of Riparian System
- [ ] Part of Riparian System

Water Level Fluctuation
- [ ] High
- [■] Low
- [ ] Vernal Pool

Groundwater Outflow
- [■] Absent
- [ ] Present

Inlet
- [■] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Outlet
- [■] Absent
- [ ] Present, to wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Outlet
- [ ] Absent
- [ ] Present, to wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

Size
- [ ] Large >4.6 acres
- [■] Medium 1.1-4.5
- [ ] Small <1 acre

Surficial Geologic Material of Watershed
- [ ] Till
- [■] Stratified sand and gravel
- [ ] Stratified fine sand and silt
- [ ] Alluvium

Percent Wetland Bordering Open Water
- [ ] <33%
- [ ] 34-66%
- [■] 67-100%
- [ ] Does not border

Legal Access
- [ ] Yes
- [■] No

Fetch
- [ ] Over 2000 ft.
- [ ] Under 2000 ft.

Depth of Lake
- [ ] Deep >6 ft.
- [ ] Shallow <6 ft.

### Social-economical Elements

Hydrologic Connection
- [ ] Connected to a Small Stream
- [ ] Connected to a River
- [ ] Connected to a Lake
- [ ] Connected to a Combination

Access to Public
- [ ] Within 100 ft of Road
- [■] Access by Passable Waterway
- [ ] Isolated

Surrounding Population Density
- [■] 1 Person/acre (+320/mi²)
- [ ] 0.5 - 1.9 p/a (430-1220/mi²)
- [ ] 2 p/a (-1220/mi²)

Local Scarcity
- [ ] 200 ft to nearest similar type
- [ ] 201 to 1000 ft to nearest similar type
- [■] 1000 ft to nearest similar type

Known Crop Value or Potential
- [■] None
- [ ] Supports 1 family for part of year
- [ ] Completely supports 1 family
- [ ] Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z-5
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 19.48

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 14.47 | | SHRUB SWAMP |
| 0.48 | | WOODED SWAMP |
| | | BOG |
| 4.53 | | OTHER Open Water |
| 19.48 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex atherodes | | | ✓ |
| (Sedge) | | | |
| Chamaedaphne calyculata | | ✓ | |
| (Leather leaf) | | | |
| Salix sp. | ✓ | | |
| (Willow) | | | |
| Sphagnum sp. | | ✓ | |
| (Sphagnum Moss) | | | |
| Alnus rugosa | ✓ | | |
| (Speckled Alder) | | | |
| Larix laricina | ✓ | | |
| (Tamarack) | | | |
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | |
| Glyceria grandis | | ✓ | |
| (Reed-meadow Grass) | | | |
| G. canadensis | ✓ | | |
| (Rattlesnake-Grass) | | | |
| Scirpus cyperinus | ✓ | | |
| (Wool-grass) | | | |
| Andromeda glaucophylla | ✓ | | |
| (Bog-Rosemary) | | | |
| Kalmia polifolia | ✓ | | |
| (Bog-Laurel) | | | |
| Sarracenia purpurea | ✓ | | |
| (Pitcher plant) | | | |
| Sphagnum sp. | | ✓ | |
| (Sphagnum Moss) | | | |

## inventory

number 25

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- <50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 75% or >75% Scattered
- 100% Cover; 75% or >75% Peripheral

Percent Open Water
- 0-33%
- 34-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Sustainability
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Superficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

Size
- Large >5.5 acres
- Medium 1.1-5.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent wetland Bordering
- Open water
- 33%
- 34-66%
- 67-100%
- Does not border

Land Ratio
- Land
- Water

Fetch
- Over 5000 ft.
- Under 5000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- >6 Persons/acre (>320/mi²)
- 0.5 - 1.5 p/a (430-1720/mi²)
- 2 p/a (1720/mi²)

Local Scarcity
- <25 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 6
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 44.17

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 44.17 | | WOODED SWAMP |
| | | BOG |
| | | OTHER |
| 44.17 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Fraxinus pennsylvanica | | ✓ | |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Acer rubrum | ✓ | | |
| (Red Maple) | | | |
| Betula lutea | ✓ | | |
| (Yellow Birch) | | | |
| Acer spicatum | | ✓ | |
| (Mountain Maple) | | | |
| Carex trisperma | | ✓ | |
| (Sedge) | | | |
| Coptis groenlandica | | ✓ | |
| (Goldthread) | | | |
| Glyceria striata | | ✓ | |
| (Fowl-meadow Grass) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |
| Ribes lacustre | ✓ | | |
| (Bristly Black Current) | | | |
| Alnus rugosa | ✓ | | |
| (Speckled Alder) | | | |
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Picea mariana | | ✓ | |
| (Black Spruce) | | | |
| Cornus canadensis | | ✓ | |
| (Bunchberry) | | | |

## inventory

number Z 6

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Broad Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 7+
- 6-7
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- 50% of 2 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or 75% Scattered
- 100% Cover; 25% or 75% Peripheral

Percent Open Water
- 0-33
- 33-66
- 67-99
- 100%

Vegetative Species Richness
- Low
- Moderate
- High

Proportion of Aquatic Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Plant Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Open Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Hydrologic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Sand
- Sand and Gravel
- Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Materials
- Absent
- Peat, Permeability
- Muck, Impermeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Permeability of Aquifer
- Low 10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Outflow Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Perennial Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland 25
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland 210
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- Large >4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Surficial Geologic Material of Watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- 0%
- 1-24%
- 25-49%
- 50-74%
- 75-100%
- Does not border

Legal Access
- Yes
- No

Ferns
- Over 2000 ft. under 2000 ft²
- Edge of Lake
- Over 6 ft.
- Shallow (6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland 27
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland 28, 9
- Perennial
- Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 7
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S) _____

ACREAGE 3.42

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 3.42 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 3.42 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Scirpus cyperinus | | ✓ | |
| (Wool-grass) | | | |
| Glyceria canadensis | | ✓ | |
| (Rattlesnake Grass) | | | |
| G. grandis. | | ✓ | |
| (Reed-meadow Grass) | | | |
| Polygonum sagittatum | ✓ | | |
| (Arrow-leaved Tearthumb) | | | |
| Cicuta bulbifera | ✓ | | |
| (Water Hemlock) | | | |
| Carex atherodes | | ✓ | |
| (Sedge) | | | |
| C. crinita | ✓ | | |
| (Sedge) | | | |
| Alnus rugosa | | ✓ | |
| (Speckled Alder) | | | |
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | |

## inventory

number 27

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- [x] Stream or Brookside Wetland
- Open Fresh Water
  - [ ] Vegetated Subclass
  - [ ] Non Vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody
  - [ ] Shrub
  - [ ] Sub-Shrub
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
- Shallow Fresh Marsh
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
  - [ ] Floating-Leaved
- Flood Plain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [ ] Ungrazed
  - [ ] Grazed
- Shrub Swamp
  - [ ] Sapling
  - [ ] Bushy
  - [ ] Compact
  - [ ] Aquatic
- Wooded Swamp
  - [ ] Deciduous
  - [ ] Evergreen
- Bog
  - [ ] Shrub
  - [ ] Wooded

## Ecological Elements

Dominant Wetland Class
- [x] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [ ] Shallow Fresh Marsh
- [ ] Yearly Flooded Flood Plain
- [ ] Wet Meadow
- [ ] Shrub Swamp
- [ ] Wooded Swamp
- [ ] Bog
- [ ] Other ____

Wetland Class Richness
- [ ] 5
- [ ] 4
- [ ] 3
- [ ] 2
- [x] 1

Subclass Richness (Lateral Diversity)
- [ ] >10
- [ ] 6-9
- [ ] 4-5
- [ ] 2-3
- [x] 1

Vegetative Interspersion
- [ ] High
- [ ] Moderate
- [x] Low

Surrounding Habitat
- [x] >90% of 2 or more of Listed Types
- [ ] 50-90% of 1 or more; 90% of 1
- [ ] <50% of 1 or more of Listed Types

Cover Type
- [ ] 26-75% Scattered
- [ ] 26-75% Peripheral
- [ ] 75% or <25 Scattered
- [x] 100% Cover; 75% or <25% Peripheral

Percent Open Water
- [x] 0-33%
- [ ] 34-66%
- [ ] 67-96%
- [ ] 96-100%

Vegetative Species Richness
- [ ] Low
- [x] Medium
- [ ] High

Proportion of Wildlife Food Plants
- [ ] Low
- [x] Moderate
- [ ] High

Vegetative Density
- [x] High
- [ ] Moderate
- [ ] Low

Wetland Interspersion
- [ ] Highly Favorable
- [x] Moderately Favorable
- [ ] Unfavorable

## Special Elements

- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other ____

## Topographical Elements

Topographic Configuration
- [ ] Closed Basin
- [ ] Semi-closed Basin
- [x] Valley
- [ ] Hillside

Wetland Gradient
- [x] Slight 0-3%
- [ ] Steep 3%

Surrounding Slopes
- [ ] Slight 0-3%
- [x] Steep 3%

Topographic Position in Watershed
- [ ] Upper
- [x] Intermediate
- [ ] Lower

## Geological Elements

Superficial Material
- [ ] Till
- [x] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Bedrock
- [ ] Igneous and Metamorphic
- [ ] Sedimentary

Organic Material
- [x] Absent
- [ ] High Permeability
- [ ] Low Permeability

## Hydrological Elements

Hydrologic Position
- [ ] Perched Wetland
- [x] Water Table Wetland
- [ ] Water Table/Artesian Wetland
- [ ] Artesian Wetland

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [x] Moderate 10,000 - 40,000 gal/day/ft
- [ ] High >40,000 gal/day/ft

Dominant Hydrologic Type
- [ ] Condition 1
- [x] Condition 2
- [ ] Condition 3
- [ ] Condition 4
- [ ] Condition 5
- [ ] Condition 6

Hydrologic Connection
- [ ] Not Part of Riparian System
- [x] Part of Riparian System

Water Level Fluctuation
- [ ] High
- [x] Low
- [ ] Vernal Pool

Groundwater Outflow
- [x] Absent
- [ ] Present

Inlet
- [ ] Absent
- [x] Present, from wetland
  - [ ] Perennial
  - [x] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- [ ] Large >10 acres
- [x] Medium 1.1-10 acres
- [ ] Small <1 acre

Superficial Geologic Material
- [ ] <4 watersheds
- [ ] Till
- [x] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Percent Wetland Bordering Open Water
- [ ] 0-33%
- [ ] 34-66%
- [ ] 67-100%
- [ ] Does not border

Local Access
- [ ] Yes
- [x] No

Size
- [ ] Over 5,000 ft.
- [ ] Under 5,000 ft.

Depth of Lake
- [ ] Deep 6 ft.
- [ ] Shallow 6 ft.

## Social-economical Elements

Hydrologic Connection
- [x] Connected to a Small Stream
- [ ] Connected to a River
- [ ] Connected to a Lake
- [ ] Connected to a Combination

Access to Public
- [ ] Within 100 ft of Road
- [ ] Access by Passable Waterway
- [x] Isolated

Surrounding Population Density
- [ ] 1 Per Immediate (<3.0/mi.)
- [ ] Out - 1.9 D/a (430-1220/mi²)
- [ ] 2 D/a (1220/mi.)

Local Scarcity
- [ ] 100 ft to nearest similar type
- [ ] 200 to 1000 ft to nearest similar type
- [x] 1000 ft to nearest similar type

Annual Crop Value or Potential
- [x] None
- [ ] Supports 1 family for part of year
- [ ] Completely supports 1 family
- [ ] Supports viable commercial interest

Inlet
- [ ] Absent
- [ ] Present, from wetland
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland
  - [ ] Perennial
  - [ ] Ephemeral

Outlet
- [ ] Absent
- [ ] Present, to wetland
  - [ ] Perennial
  - [ ] Ephemeral

Outlet
- [ ] Absent
- [ ] Present, to wetland
  - [ ] Perennial
  - [ ] Ephemeral

Swamp Creek

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z-8
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S) _____

ACREAGE 2.36

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 2.36 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 2.36 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Acer rubrum | | ✓ | |
| (Red Maple) | | | |
| Alnus rugosa | | | ✓ |
| (Speckled Alder) | | | |
| Acer spicatum | ✓ | | |
| (Mountain Maple) | | | |
| Impatiens capensis | | ✓ | |
| (Jewelweed) | | | |
| Galium spp. | | ✓ | |
| (Cleavers | | | |
| Carex crinita | ✓ | | |
| (Sedge) | | | |
| Urtica viridis | | ✓ | |
| (Nettle) | | | |
| Cinna arundinacea | ✓ | | |
| (Wood-Reedgrass) | | | |
| Athyrium filix femina | | ✓ | |
| (Lady Fern) | | | |
| Populus tremuloides | ✓ | | |
| (Quaking Aspen) | | | |

## inventory

number 2 8

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- ■ Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- ■ Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- ■ 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- ■ 1

Vegetative Interspersion
- High
- Moderate
- ■ Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- ■ 50-90% of 1 or more; 90% of 1
- 50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or less Scattered
- ■ 100% Cover; 75% or less Peripheral

Percent Open Water
- ■ 0-33%
- 34-66%
- 67-90%
- 90-100%

Vegetative Species Richness
- ■ Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- ■ Moderate
- High

Vegetative Density
- ■ Dense
- Moderate
- Low

Extent of Interspersion
- ■ Highly Favorable
- Moderately Favorable
- Minimally Favorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Site Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-Closed Basin
- ■ Valley
- Hillside

Wetland Gradient
- ■ Slight 0-3%
- Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- ■ Intermediate
- Lower

## Geological Elements

Superficial Material
- Till
- ■ Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- ■ Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- ■ Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- ■ Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- ■ Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- High
- ■ Low
- Vernal Pool

Groundwater Outflow
- ■ Absent
- Present

Inlet
- Absent
- ■ Present, from wetland 26
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- Large >4.6 acres
- Medium 1.1-4.5
- ■ Small <1 acre

Surficial Geologic Material of watershed
- Till
- ■ Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- ■ 0-33%
- 34-66%
- 67-100%
- Does not border

Type of Access
- ■ Yes
- No

Fetch
- Over 2000 ft.
- ■ Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- ■ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ■ Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- ■ [illegible]
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- ■ 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- ■ Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- ■ Present, to wetland 29
- Perennial
- Ephemeral

Inlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 9
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S)

ACREAGE 10.40

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 10.40 | | WOODED SWAMP |
| | | BOG |
| | | OTHER |
| 10.40 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Acer rubrum | | ✓ | |
| (Red Maple) | | | |
| Fraxinus pennsylvanica | | | ✓ |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Betula lutea | | ✓ | |
| (Yellow Birch) | | | |
| Athyrium filix-femina | | ✓ | |
| (Lady Fern) | | | |
| Acer spicatum | | ✓ | |
| (Mountain Maple) | | | |
| Carex trisperma | | ✓ | |
| (Sedge) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |
| Impatiens capensis | ✓ | | |
| (Jewelweed) | | | |
| Chrysosplenium americanum | ✓ | | |
| (Water-carpet) | | | |
| Alnus rugosa | ✓ | | |
| (Speckled Alder) | | | |
| Laportea canadensis | ✓ | | |
| (Wood-Nettle) | | | |
| Picea Mariana | ✓ | | |
| (Black Mariana) | | | |
| Tbuja occidentalis | ✓ | | |
| (Arbor Vitae) | | | |

## inventory

number Z 9

date 8/18/82

field investigator(s)

D, Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - [ ] Vegetated Subclass
  - [ ] Non Vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody
  - [ ] Shrub
  - [ ] Sub-Shrub
  - [ ] Rnbust
  - [ ] Narrow-Leaved
  - [ ] Brnad-Leaved
- Shallow Fresh Marsh
  - [ ] Rebust
  - [ ] Narrow-Leaved
  - [ ] Brnad-Leaved
  - [ ] Floating-Leaved
- Flond Plain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [ ] Unnrazed
  - [ ] Grazed
- Shrub Swamp
  - [ ] Sapling
  - [ ] Bushy
  - [ ] Cnmmact
  - [ ] Aquatic
- Wooded Swamp
  - [x] Deciduous
  - [x] Evergreen
- Bog
  - [ ] Shrub
  - [ ] Wooded

## Ecological Elements

Dominant Wetland Class
- [ ] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [ ] Shallow Fresh Marsh
- [ ] Yearly Flooded Flond Plain
- [ ] Wet Meadow
- [ ] Shrub Swamp
- [x] Wooded Swamp
- [ ] Bog
- [ ] Other

Wetland Class Richness
- [ ] 5
- [ ] 4
- [ ] 3
- [ ] 2
- [x] 1

Subclass Richness (lateral Diversity)
- [ ] 10
- [ ] 6-9
- [ ] 4-5
- [x] 2-3
- [ ] 1

Vegetative Interspersion
- [ ] High
- [x] Moderate
- [ ] Low

Surrounding Habitat
- [ ] 50% of 3 or more of Listed Types
- [x] 50-90% of 3 or more; 90% of 2
- [ ] 50% of 1 or more of Listed Types

Cover Type
- [ ] 26-75% Scattered
- [ ] 26-75% Peripheral
- [ ] 75% or 25% Scattered
- [x] 100% Cover; 25% or 75% Peripheral

Percent Open Water
- [x] 0-33%
- [ ] 34-66%
- [ ] 67-95%
- [ ] 96-100%

Vegetative Species Richness
- [ ] Low
- [x] Moderate
- [ ] High

Proportion of Wildlife Food Plants
- [ ] Low
- [x] Moderate
- [ ] High

Vegetative Density
- [x] High
- [ ] Moderate
- [ ] Low

Wetland Juxtaposition
- [x] Mostly Equivalent
- [ ] Moderately Equivalent
- [ ] Unfavorable

## Special Elements

- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other

## Topographical Elements

Topographic Configuration
- [ ] Closed Basin
- [ ] Semi-closed Basin
- [x] Valley
- [ ] Hillside

Wetland Gradient
- [x] Slight 0-3%
- [ ] Steep 3%

Surrounding Slopes
- [x] Slight 0-3%
- [ ] Steep 3%

Topographic Position in Watershed
- [ ] Upper
- [x] Intermediate
- [ ] Lower

## Geological Elements

Surficial Material
- [ ] Till
- [x] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Bedrock
- [x] Igneous and Metamorphic
- [ ] Sedimentary

Organic Material
- [ ] Absent
- [x] High Permeability
- [ ] Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Hydrological Elements

Hydrologic Position
- [ ] Perched Wetland
- [x] Water Table Wetland
- [ ] Water Table/Artesian Wetland
- [ ] Artesian Wetland

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [x] Moderate 10,000 - 40,000 gal/day/ft
- [ ] High >40,000 gal/day/ft

Dominant Hydrologic Type
- [ ] Condition 1
- [ ] Condition 2
- [ ] Condition 3
- [x] Condition 4
- [ ] Condition 5
- [ ] Condition 6

Hydrologic Connection
- [ ] Not Part of a Riparian System
- [x] Part of Riparian System

Water Level Fluctuation
- [ ] High
- [x] Low
- [ ] Vernal Pool

Groundwater Outflow
- [x] Absent
- [ ] Present

Inlet
- [ ] Absent
- [x] Present, from wetland 26
  - [ ] Perennial
  - [x] Ephemeral

Outlet
- [ ] Absent
- [x] Present, from wetland 28
  - [ ] Perennial
  - [x] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ____
  - [ ] Perennial
  - [ ] Ephemeral

Swamp Creek

Size
- [x] Large >4.6 acres
- [ ] Medium 1.1-4.5
- [ ] Small <1 acre

Surficial Geologic Material of watershed
- [ ] Till
- [ ] Stratified sand and gravel
- [ ] Stratified fine sand and silt
- [ ] Alluvium

Percent Wetland Bordering Open Water
- [ ] 0%
- [ ] 1-25%
- [x] 26-66%
- [x] 67-100%
- [ ] Does not border

Legal Access
- [x] Yes
- [ ] No

Relief
- [ ] Over 2000 ft.
- [ ] Under 2000 ft.

Depth of Lake
- [ ] Deep >6 ft.
- [ ] Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- [x] Connected to a Small Stream
- [ ] Connected to a River
- [ ] Connected to a Lake
- [ ] Connected to a Combination

Access to Public
- [ ] Within 100 ft of Road
- [ ] Access by Passable waterway
- [x] Isolated

Surrounding Population Density
- [ ] >4 persons/sq.km (>10/sq.mi.)
- [ ] 0.5 - 1.9 p/a (430-1220/mi²)
- [ ] n/a (<1220/mi²)

Local Scarcity
- [ ] <20% ft to nearest similar type
- [ ] 201 to 1000 ft to nearest similar type
- [ ] 1000 ft to nearest similar type

Known Crop Value or Potential
- [x] None
- [ ] Supports 1 family for part of year
- [ ] Completely supports 1 family
- [ ] Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 10
FLIGHT, PHOTO NUMBER(S) 6-42

MAP NUMBER(S) _____

ACREAGE 20.72

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 3.11 | | SHALLOW MARSH |
| | | DEEP MARSH |
| 1.74 | | SHRUB SWAMP |
| 18.87 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 20.72 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Scirpus cyperinus (Wool-grass) | | ✓ | |
| Salix sp. (Willow) | | ✓ | |
| Onoclea sensibilis (Sensitive Fern) | | ✓ | |
| Abies balsamea (Balsam Fir) | | ✓ | |
| Fraxinus pennsylvanica var. subintegerrima (Green Ash) | | ✓ | |
| Nemopanthus mucronata (Mountain Holly) | ✓ | | |
| Thuja occidentalis (Arbor Vitae) | | ✓ | |
| Acer spicatum (Mountain Maple) | | ✓ | |
| Ribes glandulosum (Skunk Current) | ✓ | | |
| Clintonia borealis (Corn-Lily) | | ✓ | |
| Trillium cernuum (Nodding Trillium) | ✓ | | |
| Picea mariana (Black Spruce) | ✓ | | |
| Dryopteris disjuncta (Oak Fern) | | ✓ | |
| Carex trisperma (Sedge) | | ✓ | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Lonicera canadensis (Fly-Honeysuckle) | | ✓ | |
| Acer rubrum (Red Maple) | ✓ | | |
| Coptis groenlandica (Goldthread) | | ✓ | |

## inventory

number Z 10

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - ■ Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - ■ Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - ■ Deciduous
  - ■ Evergreen
- Bog
  - Shrub
  - Wooded

### Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- ■ Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- ■ 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- ■ 4-5
- 2-3
- 1

Vegetative Interspersion
- ■ High
- Moderate
- Low

Surrounding Habitat
- ■ 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 2
- 50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or 25 Scattered
- ■ 100% Cover; 75% or 75% Peripheral

Percent Open Water
- ■ 0-30%
- 30-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- ■ High

Proportion of Wildlife Food Plants
- Low
- ■ Moderate
- High

Vegetative Density
- ■ High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- ■ Moderately Favorable
- Unfavorable

### Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

### Topographical Elements

Topographic Configuration
- Closed Basin
- ■ Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- ■ Slight 0-3%
- Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- ■ Upper
- Intermediate
- Lower

### Geological Elements

Surficial Material
- Till
- ■ Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- ■ Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- ■ High Permeability
- Low Permeability

### unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

### unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

### Hydrological Elements

Hydrologic Position
- Perched Wetland
- ■ Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low 10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- ■ Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- ■ High
- Low
- Vernal Pool

Groundwater Outflow
- ■ Absent
- Present

Inlet
- ■ Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet:
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet:
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet:
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Size
- ■ Large >4.6 acres
- Medium 1.1-4.6
- Small 1 acre

Surficial Geologic Material of watershed
- Till
- ■ Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open water
- 0-33%
- 34-66%
- 67-100%
- ■ Does not border

Legal Access
- Yes
- ■ No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

### Social-economical Elements

Hydrologic Connection
- ■ Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- ■ Within 1/2 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- ■ 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- ■ 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 11
FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S)

ACREAGE 20.40

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 20.40 | | WOODED SWAMP |
| | | BOG |
| | | OTHER |
| 20.40 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Tsuga canadensis | ✓ | | |
| (Hemlock) | | | |
| Abies balsamea | ✓ | | |
| (Balsam Fir) | | | |
| Acer spicatum | | ✓ | |
| (Mountain Maple) | | | |
| Dryopteris phegopteris | | ✓ | |
| (Long Beech Fern) | | | |
| D. disjuncta | | ✓ | |
| (Oak Fern) | | | |
| Fraxinus pennsylvanica | | ✓ | |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Lonicera canadensis | ✓ | | |
| (Fly-Honeysuckle) | | | |
| Athyrium filix-femina | | ✓ | |
| (Lady Fern) | | | |
| Cinna arundinacea | ✓ | | |
| (Wood Reedgrass) | | | |
| Onoclea sensibilis | | ✓ | |
| (Sensitive Fern) | | | |
| Sphagnum sp. | | ✓ | |
| (Sphagnum Moss) | | | |
| Ribes glandulosum | ✓ | | |
| (Skunk Current) | | | |
| Arisaema triphyllum | ✓ | | |
| (Jack-in-the-Pulpit) | | | |

## inventory

number Z 11

date 8/17/82

field investigator(s)

D. Magee

water quality

| | | | |
|---|---|---|---|
| Trillium cernuum | ✓ | | |
| (nodding Trillium) | | | |
| Galium sp. | ✓ | | |
| (Cleavers) | | | |
| Epilobium glandulosum | ✓ | | |
| (Willow-herb) | | | |
| Coptis groenlambica | | ✓ | |
| (Goldthread) | | | |
| Corex trisperma | | ✓ | |
| (Sedge) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |

| | | | |
|---|---|---|---|
| Picea Mariana | ✓ | | |
| (Black Spruce) | | | |
| Glyceria striata | | ✓ | |
| (Fowl-meadow Grass) | | | |
| Impatiens capensis | | ✓ | |
| (Jewelweed) | | | |
| Circaea canadensis | ✓ | | |
| (Enchantor's Nightshade) | | | |
| Hydrocotyte umbellata | | ✓ | |
| (Water-Pennywort) | | | |

### unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

### unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Wetland Subclasses
- Stream or Brooks de Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetater Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - UnGrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brooks de Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (lateral Diversity)
- >10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-89% of 1 or more; 90% of 1
- 50% of 1 or more of Listed Types

Cover Type
- 25-75% Scattered
- 25-75% Peripheral
- 75% or >75 Scattered
- 100% Covers; 75% or >75% Peripheral

Percent Open Water
- 0-35
- 36-66
- 67-95
- 96-100

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Swamp Creek

Size
- Large >5 acres
- Medium 1-5 acre
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

Elevation
- Over 2000 ft.
- Under 2000 ft.

Size of Lake
- Over 5 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- [illegible]
- [illegible]

Land Stability
- [illegible] ft to nearest similar type
- [illegible] ft to nearest similar type
- [illegible] ft to nearest similar type

Human Crop Value or Potential
- None
- Supports 1 family for part of year
- Consistently supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 12
FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S) _____

ACREAGE 6.56

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 6.56 | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 6.56 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Picea mariana (Black Spruce) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | | ✓ |
| Calamagrostis canadensis (Blue-joint Grass) | | ✓ | |
| Scirpus cyperinus (Wool-grass) | | ✓ | |
| Typha latifolia (Cattail) | ✓ | | |
| Bidens connata (Beggar-ticks) | | ✓ | |
| Linnaea borealis (Twin flower) | | ✓ | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Epilobium leptophyllum (Willow-herb) | ✓ | | |
| Galium spp. (Cleavers Bedstraw) | ✓ | | |
| Lycopus virginicus (Water-Horehound) | ✓ | | |
| Thuja occidentalis (Arbor Vitae) | ✓ | | |
| Abies balsamea (Balsam Fir) | ✓ | | |
| Cornus canadensis (Bunchberry) | | ✓ | |
| Ledum groenlandicum (Labrador tea) | | ✓ | |
| Salix sp. (Willow) | ✓ | | |

## inventory

number Z 12

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Ungrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sapling
  - ■ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ☐ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ■ Shrub Swamp
- ☐ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ☐ 2
- ■ 1

Subclass Richness (Lateral Diversity)
- ☐ 10
- ☐ 6-9
- ☐ 4-5
- ☐ 2-3
- ■ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ☐ 90% of 2 or more of Listed Types
- ■ 50-90% of 1 or more; 90% of 1
- ☐ 50% of 1 or more of Listed Types

Cover Type
- ☐ 26-75% Scattered
- ☐ 26-75% Peripheral
- ☐ 75% or >75 Scattered
- ■ 100% Cover; 75% or >75% Peripheral

Percent Open Water
- ■ 0-30%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ■ Medium
- ☐ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ■ High
- ☐ Moderate
- ☐ Low

Wetland Juxtaposition
- ☐ Highly Favorable
- ■ Moderately Favorable
- ☐ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

## Topographical Elements

Topographic Configuration
- ■ Closed Basin
- ☐ Semi-Closed Basin
- ☐ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ■ Upper
- ☐ Intermediate
- ☐ Lower

## Geological Elements

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High >40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ☐ Condition 4
- ☐ Condition 5
- ■ Condition 6

Hydrologic Connection
- ☐ Not Part of Riparian System
- ☐ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ■ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ■ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- ■ Large >4.6 acres
- ☐ Medium 1.1-4.5
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent wetland Bordering Open water
- ☐ 33%
- ☐ 34-66%
- ☐ 67-100%
- ■ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 2000 ft.
- ☐ Under 2000 ft.

Depth of Lake
- ☐ Deep >6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ☐ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- ☐ Access by Passable Waterway
- ☐ Isolated

Surrounding Population Density
- ■ .5 person/acre (<3/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ 2 p/a (1220/mi²)

Local Scarcity
- ■ 200 ft to nearest similar type
- ☐ 201 to 1000 ft to nearest similar type
- ☐ 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 13
FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S) _____

ACREAGE 3.15

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 3.15 | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 3.15 | | TOTAL |

## vegetation

| | occ | com | dom. |
|---|---|---|---|
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Picea mariana | | ✓ | |
| (Black Spruce) | | | |
| Calamagrostis canadensis | | ✓ | |
| (Blue-joint Grass) | | | - |
| Lycopus virginicus | ✓ | | |
| (Water-Horehound) | | | |
| Glyceria striata | | ✓ | |
| (Fowl-meadow Grass) | | | |
| Cinna arundinacea | | ✓ | |
| (Wood Reedgrass) | | | |
| Polygonum sagittatum | ✓ | | |
| (Arrow-leaved Tearthumb) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Carex spp. | ✓ | | |
| (Sedge) | | | |
| Acer rubrum | ✓ | | |
| (Red Maple) | | | |
| Cornus canadensis | ✓ | | |
| (Bunchberry) | | | |
| Alnus rugosa | | | ✓ |
| (Speckled Alder) | | | |
| Carex trisperma | | ✓ | |
| (Sedge) | | | |

## inventory

number Z 13

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Ungrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sabling
  - ■ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ☐ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ■ Shrub Swamp
- ☐ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ☐ 2
- ■ 1

Subclass Richness (Lateral Diversity)
- ☐ >10
- ☐ 6-9
- ☐ 4-5
- ☐ 2-3
- ■ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ☐ 90% of 2 or more of Listed Types
- ■ 50-90% of 1 or more; 90% of 1
- ☐ 10% of 1 or more of Listed Types

Cover Type
- ☐ 25-75% Scattered
- ☐ 25-75% Peripheral
- ☐ 75% or >25% Scattered
- ■ 100% Cover; 75% or >25% Peripheral

Percent Open Water
- ■ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ■ Medium
- ☐ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ■ High
- ☐ Moderate
- ☐ Low

Wetland Juxtaposition
- ☐ Highly Favorable
- ■ Moderately Favorable
- ☐ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

## Topographical Elements

Topographic Configuration
- ■ Closed Basin
- ☐ Semi-closed Basin
- ☐ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ■ Upper
- ☐ Intermediate
- ☐ Lower

## Geological Elements

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High >40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ☐ Condition 4
- ☐ Condition 5
- ☐ Condition 6

Hydrologic Connection
- ☐ Not Part of Riparian System
- ☐ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ■ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- ☐ Large >4.6 acres
- ■ Medium 1.1-4.5
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent Wetland Bordering Open Water
- ☐ <33%
- ☐ 34-66%
- ☐ 67-100%
- ■ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 2000 ft.
- ☐ Under 2000 ft.

Depth of Lake
- ☐ Deep >6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ☐ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- ☐ Access by Passable Waterway
- ☐ Isolated

Surrounding Population Density
- ■ [illegible] p/a (<30/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ >2 p/a (>1220/mi²)

Local Scarcity
- ■ <300 ft to nearest similar type
- ☐ 301 to 1000 ft to nearest similar type
- ☐ >1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 14
FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S) _____

ACREAGE 73.78

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 6.34 | | SHRUB SWAMP |
| 67.44 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 73.78 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Thuja occidentalis | | ✓ | |
| (Arbor Vitae) | | | |
| Betula lutea | ✓ | | |
| (Yellow Birch) | | | |
| Alnus rugosa | | ✓ | |
| (Speckled Alder) | | | |
| Fraxinus pennsylvanica | | ✓ | |
| var. subintegerrima | | | |
| (Green Ash) | | | |
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Impatiens capensis | | ✓ | |
| (Jewelweed) | | | |
| Onoclea sensibilis | | ✓ | |
| (Sensitive Fern) | | | |
| Thalictrum polygamum | ✓ | | |
| (Tall Meadow-Rue) | | | |
| Chelone glabra | ✓ | | |
| (Turtlehead) | | | |
| Carex trisperma | ✓ | | |
| (Sedge) | | | |
| Hebenaria psychodes | ✓ | | |
| (Small Purple Fringed Orchis) | | | |
| Galium sp. | | ✓ | |
| (Cleavers Bedstraw) | | | |
| Ribes glandulosum | ✓ | | |
| (Skunk Current) | | | |
| Picea mariana | | ✓ | |
| (Black Spruce) | | | |

## inventory

number Z 14

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Ungrazed
  - ☐ Grazed
- Shrub Swamp
  - ■ Sapling
  - ☐ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ■ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ☐ Shrub Swamp
- ■ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ■ 2
- ☐ 1

Subclass Richness (Lateral Diversity)
- ☐ 10
- ☐ 6-9
- ☐ 4-5
- ■ 2-3
- ☐ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ■ 90% of 2 or more of Listed Types
- ☐ 50-90% of 1 or more; 90% of 1
- ☐ 50% of 1 or more of Listed Types

Cover Type
- ☐ 26-75% Scattered
- ☐ 26-75% Peripheral
- ☐ 75% or 25% Scattered
- ■ 100% Cover; 75% or 25% Peripheral

Percent Open Water
- ■ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ☐ Medium
- ■ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ☐ High
- ■ Moderate
- ☐ Low

Wetland Juxtaposition
- ■ Highly Favorable
- ☐ Moderately Favorable
- ☐ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

## Topographical Elements

Topographic Configuration
- ☐ Closed Basin
- ☐ Semi-closed Basin
- ■ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ☐ Upper
- ■ Intermediate
- ☐ Lower

## Geological Elements

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High >40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ■ Condition 4
- ☐ Condition 5
- ☐ Condition 6

Hydrologic Connection
- ☐ Not Part of Riparian System
- ■ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ☐ Absent
- ■ Present

Inlet
- ☐ Absent
- ■ Present, from wetland
  - ■ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ■ Present, to wetland Swamp Creek
  - ■ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ■ Present, from wetland
  - ■ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- ■ Large >4.6 acres
- ☐ Medium 1.1-4.5
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent Wetland Bordering Open Water
- ☐ <33%
- ■ 34-66%
- ☐ 67-100%
- ☐ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 2000 ft.
- ☐ Under 2000 ft.

Depth of Lake
- ☐ Deep >6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ■ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- ☐ Access by Passable Waterway
- ☐ Isolated

Surrounding Population Density
- ■ [illegible] persons/acre (<320/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ 2 p/a (>1220/mi²)

Local Scarcity
- ☐ 300 ft to nearest similar type
- ■ 201 to 1000 ft to nearest similar type
- ☐ 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B

WETLAND NUMBER Z 15

FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S) _____

ACREAGE 9.42

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 9.42 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 9.42 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Thuja occidentalis (Arbor Vitae) | | ✓ | |
| Abies balsamea (Balsam Fir) | ✓ | | |
| Alnus rugosa (Speckled Alder) | ✓ | | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Cornus canadensis (Bunchberry) | | ✓ | |
| Acer spicatum (Mountain-Maple) | | ✓ | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Fraxinus pennsylvanica var. subintegerrima (Green Ash) | | ✓ | |
| Dryopteris phegopteris (Long Beech-Fern) | | ✓ | |
| Ilex verticillata (Winterberry) | | ✓ | |
| Galtheria hispidula (Creeping Snowberry) | ✓ | | |
| Coptis groenlandica (Goldthread) | | ✓ | |
| Trillium cernuum (Nodding Trillium) | ✓ | | |
| Epilobium leptophyllum (Willow-herb) | ✓ | | |

## inventory

number Z 15

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ☐ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Unmrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sapling
  - ☐ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ■ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ☐ Shrub Swamp
- ■ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ☐ 3
- ☐ 2
- ■ 1

Subclass Richness (Lateral Diversity)
- ☐ >10
- ☐ 6-9
- ☐ 4-5
- ☐ 2-3
- ■ 1

Vegetative Interspersion
- ☐ High
- ■ Moderate
- ☐ Low

Surrounding Habitat
- ☐ >90% of 2 or more of Listed Types
- ■ 50-90% of 1 or more; 90% of 1
- ☐ <50% of 1 or more of Listed Types

Cover Type
- ☐ 26-75% Scattered
- ☐ 26-75% Peripheral
- ☐ 75% or <25% Scattered
- ■ 100% Cover; 75% or <25% Peripheral

Percent Open Water
- ■ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ☐ Medium
- ■ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ☐ High
- ■ Moderate
- ☐ Low

Wetland Juxtaposition
- ■ Highly Favorable
- ☐ Moderately Favorable
- ☐ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

## Topographical Elements

Topographic Configuration
- ■ Closed Basin
- ☐ Semi-closed Basin
- ☐ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ■ Upper
- ☐ Intermediate
- ☐ Lower

## Geological Elements

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ☐ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low <10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High >40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ☐ Condition 4
- ☐ Condition 5
- ■ Condition 6

Hydrologic Connection
- ■ Not Part of Riparian System
- ☐ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ■ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
  - ☐ Perennial
  - ☐ Ephemeral

Size
- ■ Large >4.6 acres
- ☐ Medium 1.1-4.5
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent Wetland Bordering Open Water
- ☐ <33%
- ☐ 34-66%
- ☐ 67-100%
- ■ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 2000 ft.
- ☐ Under 2000 ft.

Depth of Lake
- ☐ Deep >6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ☐ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ■ Within 100 ft of Road
- ☐ Access by Passable waterway
- ☐ Isolated

Surrounding Population Density
- ■ >1 person/acre (>320/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ ? p/a (<1220/mi²)

Local Scarcity
- ■ <200 ft to nearest similar type
- ☐ 201 to 1000 ft to nearest similar type
- ☐ >1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

Inlet
- ☐ Absent
- ☐ Present, from wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ■ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
  - ☐ Perennial
  - ☐ Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 16
FLIGHT, PHOTO NUMBER(S) 5-34

MAP NUMBER(S)

ACREAGE 32.54

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 12.92 | | SHRUB SWAMP |
| 18.00 | | WOODED SWAMP |
| | | BOG |
| 1.62 | | OTHER Open Water |
| 32.54 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Thuja occidentalis (Arbor Vitae) | ✓ | | |
| Picea Mariana (Black Spruce) | ✓ | | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Salix bebbiana (Long-beaked Willow) | | ✓ | |
| Lycopus virginicus (Water-Horehound) | ✓ | | |
| Scutellaria epilobiifolia (Common Skullcap) | ✓ | | |
| Carex spp. (Sedge) | ✓ | | |
| Bidens connata (Beggar-ticks) | | ✓ | |
| Larix laricina (Tamarack) | | | ✓ |
| Picea mariana (Black Spruce) | | ✓ | |
| Ledum groenlandicum (Labrador tea) | | ✓ | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |

## inventory

number Z 16

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - ☐ Vegetated Subclass
  - ■ Non Vegetated Subclass
- Deep Fresh Marsh
  - ☐ Dead Woody
  - ☐ Shrub
  - ☐ Sub-Shrub
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
- Shallow Fresh Marsh
  - ☐ Robust
  - ☐ Narrow-Leaved
  - ☐ Broad-Leaved
  - ☐ Floating-Leaved
- Flood Plain/Flats
  - ☐ Emergent
  - ☐ Shrubs and Trees
- Wet Meadow
  - ☐ Unmrazed
  - ☐ Grazed
- Shrub Swamp
  - ☐ Sapling
  - ■ Bushy
  - ☐ Compact
  - ☐ Aquatic
- Wooded Swamp
  - ☐ Deciduous
  - ■ Evergreen
- Bog
  - ☐ Shrub
  - ☐ Wooded

## Ecological Elements

Dominant Wetland Class
- ☐ Stream or Brookside Wetland
- ☐ Open Fresh Water
- ☐ Deep Fresh Marsh
- ☐ Shallow Fresh Marsh
- ☐ Yearly Flooded Flood Plain
- ☐ Wet Meadow
- ☐ Shrub Swamp
- ■ Wooded Swamp
- ☐ Bog
- ☐ Other

Wetland Class Richness
- ☐ 5
- ☐ 4
- ■ 3
- ☐ 2
- ☐ 1

Subclass Richness (Lateral Diversity)
- ☐ 10
- ☐ 6-9
- ☐ 4-5
- ■ 2-3
- ☐ 1

Vegetative Interspersion
- ■ High
- ☐ Moderate
- ☐ Low

Surrounding Habitat
- ■ 90% of 2 or more of Listed Types
- ☐ 50-90% of 1 or more; 90% of 1
- ☐ <50% of 1 or more of Listed Types

Cover Type
- ☐ 26-75% Scattered
- ☐ 26-75% Peripheral
- ☐ 75% or <25% Scattered
- ■ 100% Cover; 75% or <25% Peripheral

Percent Open Water
- ■ 0-33%
- ☐ 34-66%
- ☐ 67-95%
- ☐ 96-100%

Vegetative Species Richness
- ☐ Low
- ■ Medium
- ☐ High

Proportion of Wildlife Food Plants
- ☐ Low
- ■ Moderate
- ☐ High

Vegetative Density
- ■ High
- ☐ Moderate
- ☐ Low

Wetland Juxtaposition
- ☐ Highly Favorable
- ■ Moderately Favorable
- ☐ Unfavorable

## Special Elements

- ☐ Aquatic Study Area
- ☐ Sanctuary or Refuge
- ☐ Wildlife Management Area
- ☐ Fisheries Management Area
- ☐ Educational Study Area
- ☐ Historical Area
- ☐ Other

## Topographical Elements

Topographic Configuration
- ■ Closed Basin
- ☐ Semi-closed Basin
- ☐ Valley
- ☐ Hillside

Wetland Gradient
- ■ Slight 0-3%
- ☐ Steep 3%

Surrounding Slopes
- ■ Slight 0-3%
- ☐ Steep 3%

Topographic Position in Watershed
- ■ Upper
- ☐ Intermediate
- ☐ Lower

## Geological Elements

Surficial Material
- ☐ Till
- ■ Stratified Sand and Gravel
- ☐ Stratified Fine Sand and Silt
- ☐ Alluvium

Bedrock
- ■ Igneous and Metamorphic
- ☐ Sedimentary

Organic Material
- ☐ Absent
- ■ High Permeability
- ☐ Low Permeability

## Hydrological Elements

Hydrologic Position
- ☐ Perched Wetland
- ■ Water Table Wetland
- ☐ Water Table/Artesian Wetland
- ☐ Artesian Wetland

Transmissivity of Aquifer
- ☐ Low 10,000 gal/day/ft
- ■ Moderate 10,000 - 40,000 gal/day/ft
- ☐ High 40,000 gal/day/ft

Dominant Hydrologic Type
- ☐ Condition 1
- ☐ Condition 2
- ☐ Condition 3
- ☐ Condition 4
- ☐ Condition 5
- ☐ Condition 6

Hydrologic Connection
- ■ Not Part of Riparian System
- ☐ Part of Riparian System

Water Level Fluctuation
- ☐ High
- ■ Low
- ☐ Vernal Pool

Groundwater Outflow
- ■ Absent
- ☐ Present

Inlet
- ■ Absent
- ☐ Present, from wetland ___
- ☐ Perennial
- ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
- ☐ Perennial
- ☐ Ephemeral

Inlet
- ☐ Absent
- ☐ Present, from wetland ___
- ☐ Perennial
- ☐ Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- ■ Large >4.6 acres
- ☐ Medium 1.1-4.5
- ☐ Small <1 acre

Surficial Geologic Material of watershed
- ☐ Till
- ■ Stratified sand and gravel
- ☐ Stratified fine sand and silt
- ☐ Alluvium

Percent Wetland Bordering Open Water
- ☐ <33%
- ☐ 34-66%
- ☐ 67-100%
- ■ Does not border

Legal Access
- ☐ Yes
- ■ No

Fetch
- ☐ Over 1000 ft.
- ☐ Under 2000 ft.

Depth of Lake
- ☐ Deep >6 ft.
- ☐ Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- ☐ Connected to a Small Stream
- ☐ Connected to a River
- ☐ Connected to a Lake
- ☐ Connected to a Combination

Access to Public
- ■ Within 150 ft of Road
- ☐ Access by Passable Waterway
- ☐ Isolated

Surrounding Population Density
- ■ <1 person/acre (<320/mi²)
- ☐ 0.5 - 1.9 p/a (430-1220/mi²)
- ☐ 2 p/a (1220/mi²)

Local Scarcity
- ☐ 200 ft to nearest similar type
- ■ 201 to 1000 ft to nearest similar type
- ☐ 1000 ft to nearest similar type

Known Crop Value or Potential
- ■ None
- ☐ Supports 1 family for part of year
- ☐ Completely supports 1 family
- ☐ Supports viable commercial interest

Outlet
- ■ Absent
- ☐ Present, to wetland
- ☐ Perennial
- ☐ Ephemeral

Outlet
- ☐ Absent
- ☐ Present, to wetland
- ☐ Perennial
- ☐ Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 17
FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S) _____

ACREAGE 5.76

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 2.78 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 2.78 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Cicuta bulbifera | | ✓ | |
| (Water Hemlock) | | | |
| Glyceria canadensis | | ✓ | |
| (Rattlesnake Grass) | | | |
| Juncus effusus | ✓ | | |
| (Soft Rush) | | | |
| Impatiens capensis | | ✓ | |
| (Jewelweed) | | | |
| Scirpus atrocinctus | | ✓ | |
| (Bulrush) | | | |
| Agrostis alba | ✓ | | |
| (Redtop) | | | |
| Bidens connata | | ✓ | |
| (Beggar-ticks) | | | |
| Potamogeton epihydrus | | ✓ | |
| (Pondweed) | | | |
| Nuphar variegatum | | ✓ | |
| (Bullhead-lily) | | | |
| Scirpus cyperinus | | ✓ | |
| (Wool-grass) | | | |
| Polygonum hydropiper | ✓ | | |
| (Common Smartweed) | | | |
| Sparganium americanum | ✓ | | |
| (Bur-reed) | | | |
| Scutellaria epilobiifolia | ✓ | | |
| (Common Skullcap) | | | |
| Leersia oryzoides | ✓ | | |
| (Rice-Cutgrass) | | | |
| Galium spp. | | ✓ | |
| (Cleavers Bedstraw) | | | |
| Ilex verticillata | | ✓ | |
| (Winterberry) | | | |
| Alisma subcordatum | | ✓ | |
| (Water Plantain) | | | |
| Zizania aquatica | ✓ | | |
| (Wild Rice) | | | |
| Carex spp. | | ✓ | |
| (Sedge) | | | |
| Mentha sp. | ✓ | | |
| (Mint) | | | |
| Acer rubrum | | ✓ | |
| (Red Maple) | | | |

## inventory

number Z 17

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - [■] Vegetated Subclass
  - [ ] Non Vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody
  - [ ] Shrub
  - [ ] Sub-Shrub
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
- Shallow Fresh Marsh
  - [ ] Robust
  - [■] Narrow-Leaved
  - [ ] Broad-Leaved
  - [ ] Floating-Leaved
- Flood Plain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [ ] Ungrazed
  - [ ] Grazed
- Shrub Swamp
  - [ ] Sapling
  - [ ] Bushy
  - [ ] Compact
  - [ ] Aquatic
- Wooded Swamp
  - [■] Deciduous
  - [ ] Evergreen
- Bog
  - [ ] Shrub
  - [ ] Wooded

## Ecological Elements

Dominant Wetland Class
- [ ] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [■] Shallow Fresh Marsh
- [ ] Yearly Flooded Flood Plain
- [ ] Wet Meadow
- [ ] Shrub Swamp
- [ ] Wooded Swamp
- [ ] Bog
- [ ] Other _____

Wetland Class Richness
- [ ] 5
- [ ] 4
- [■] 3
- [ ] 2
- [ ] 1

Subclass Richness (Lateral Diversity)
- [ ] 10
- [ ] 8-9
- [ ] 6-7
- [■] 4-5
- [ ] 2-3
- [ ] 1

Vegetative Interspersion
- [ ] High
- [■] Moderate
- [ ] Low

Surrounding Habitat
- [ ] 90% of 2 or more of Listed Types
- [■] 50-90% of 1 or more; 90% of 1
- [ ] <50% of 1 or more of Listed Types

Cover Type
- [ ] 26-75% Scattered
- [■] 26-75% Peripheral
- [ ] 75% or >25% Scattered
- [ ] 100% Cover; 75% or >25% Peripheral

Percent Open Water
- [ ] 0-33
- [■] 34-66%
- [ ] 67-95%
- [ ] 96-100%

Vegetative Species Richness
- [ ] Low
- [■] Medium
- [ ] High

Proportion of Wildlife Food Plants
- [ ] Low
- [■] Moderate
- [ ] High

Vegetative Density
- [ ] High
- [■] Moderate
- [ ] Low

Wetland Juxtaposition
- [ ] Highly Favorable
- [■] Moderately Favorable
- [ ] Unfavorable

## Special Elements

- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other _____

## Topographical Elements

Topographic Configuration
- [ ] Closed Basin
- [■] Semi-closed Basin
- [ ] Valley
- [ ] Hillside

Wetland Gradient
- [■] Slight 0-3%
- [ ] Steep 3%

Surrounding Slopes
- [■] Slight 0-3%
- [ ] Steep 3%

Topographic Position in Watershed
- [■] Upper
- [ ] Intermediate
- [ ] Lower

## Geological Elements

Surficial Material
- [ ] Till
- [■] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Bedrock
- [ ] Igneous and Metamorphic
- [ ] Sedimentary

Organic Material
- [ ] Absent
- [■] High Permeability
- [ ] Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

## Hydrological Elements

Hydrologic Position
- [ ] Perched Wetland
- [■] Water Table Wetland
- [ ] Water Table/Artesian Wetland
- [ ] Artesian Wetland

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [■] Moderate 10,000 - 45,000 gal/day/ft
- [ ] High >45,000 gal/day/ft

Dominant Hydrologic Type
- [ ] Condition 1
- [ ] Condition 2
- [ ] Condition 3
- [ ] Condition 4
- [■] Condition 5
- [ ] Condition 6

Hydrologic Connection
- [ ] Not Part of Riparian System
- [■] Part of Riparian System

Water Level Fluctuation
- [ ] High
- [■] Low
- [ ] Vernal Pool

Groundwater Outflow
- [■] Absent
- [ ] Present

Inlet
- [■] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

Size
- [ ] Large >4.6 acres
- [■] Medium 1.1-4.6
- [ ] Small <1 acre

Surficial Geologic Material of watershed
- [ ] Till
- [■] Stratified sand and gravel
- [ ] Stratified fine sand and silt
- [ ] Alluvium

Percent Wetland Bordering Open water
- [ ] 33%
- [■] 34-66%
- [ ] 67-100%
- [ ] Does not border

Legal Access
- [ ] Yes
- [■] No

Fetch
- [ ] Over 2000 ft.
- [ ] Under 2000 ft.

Depth of Lake
- [ ] Deep >6 ft.
- [ ] Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- [■] Connected to a Small Stream
- [ ] Connected to a River
- [ ] Connected to a Lake
- [ ] Connected to a Combination

Access to Public
- [ ] Within 100 ft of Road
- [ ] Access by Passable Waterway
- [■] Isolated

Surrounding Population Density
- [■] <1 person/acre (<320/mi²)
- [ ] 0.5 - 1.9 p/a (430-1220/mi²)
- [ ] >2 p/a (>1220/mi²)

Local Scarcity
- [ ] 200 ft to nearest similar type
- [ ] 201 to 1000 ft to nearest similar type
- [■] 1000 ft to nearest similar type

Known Crop Value or Potential
- [ ] None
- [■] Supports 1 family for part of year
- [ ] Completely supports 1 family
- [ ] Supports viable commercial interest

Outlet
- [■] Absent
- [ ] Present, to wetland
  - [ ] Perennial
  - [ ] Ephemeral

Outlet
- [ ] Absent
- [ ] Present, to wetland ___
  - [ ] Perennial
  - [ ] Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 18
FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S)

ACREAGE 7.32

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 6.47 | | WOODED SWAMP |
| | | BOG |
| 0.85 | | OTHER Open Water |
| 7.32 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Abies balsamea (Balsam Fir) | | ✓ | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Thalictrum polygamum (Tall Meadow-Rue) | | ✓ | |
| Carex crinita (Sedge) | ✓ | | |
| Picea mariana (Black Spruce) | ✓ | | |
| Galium spp. (Cleavers Bedstraw) | | ✓ | |
| Carex stricta (Sedge) | | ✓ | |
| Clintonia borealis (Corn-Lily) | ✓ | | |
| Sorbus americana (Mountain Ash) | ✓ | | |
| Acer rubrum (Red Maple) | | ✓ | |
| Glyceria striata (Fowl-meadow Grass) | | ✓ | |
| Solidago sp. (Goldenrod) | | ✓ | |
| Aster puniceus (Aster) | ✓ | | |
| Rubus hispidus (Dewberry) | | ✓ | |

## inventory

number Z 18

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - [■] Vegetated Subclass
  - [ ] Non Vegetated Subclass
- Deep Fresh Marsh
  - [ ] Dead Woody
  - [ ] Shrub
  - [ ] Sub-Shrub
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
- Shallow Fresh Marsh
  - [ ] Robust
  - [ ] Narrow-Leaved
  - [ ] Broad-Leaved
  - [ ] Floating-Leaved
- Flood Plain/Flats
  - [ ] Emergent
  - [ ] Shrubs and Trees
- Wet Meadow
  - [ ] Unmrazed
  - [ ] Grazed
- Shrub Swamp
  - [ ] Sapling
  - [ ] Bushy
  - [ ] Compact
  - [ ] Aquatic
- Wooded Swamp
  - [■] Deciduous
  - [ ] Evergreen
- Bog
  - [ ] Shrub
  - [ ] Wooded

## Ecological Elements

Dominant Wetland Class
- [ ] Stream or Brookside Wetland
- [ ] Open Fresh Water
- [ ] Deep Fresh Marsh
- [ ] Shallow Fresh Marsh
- [ ] Yearly Flooded Flood Plain
- [ ] Wet Meadow
- [■] Shrub Swamp
- [■] Wooded Swamp
- [ ] Bog
- [ ] Other

Wetland Class Richness
- [ ] 5
- [ ] 4
- [ ] 3
- [■] 2
- [ ] 1

Subclass Richness (Lateral Diversity)
- [ ] 10
- [ ] 6-9
- [■] 4-5
- [■] 2-3
- [ ] 1

Vegetative Interspersion
- [ ] High
- [■] Moderate
- [ ] Low

Surrounding Habitat
- [ ] 90% of 2 or more of Listed Types
- [■] 50-90% of 1 or more; 90% of 1
- [ ] <50% of 1 or more of Listed Types

Cover Type
- [ ] 26-75% Scattered
- [■] 26-75% Peripheral
- [ ] 25% or <25 Scattered
- [ ] 100% Cover; 75% or <25% Peripheral

Percent Open Water
- [■] 0-33%
- [ ] 34-66%
- [ ] 67-95%
- [ ] 96-100%

Vegetative Species Richness
- [ ] Low
- [■] Medium
- [ ] High

Proportion of Wildlife Food Plants
- [ ] Low
- [■] Moderate
- [ ] High

Vegetative Density
- [ ] High
- [■] Moderate
- [ ] Low

Wetland Juxtaposition
- [ ] Highly Favorable
- [■] Moderately Favorable
- [ ] Unfavorable

## Special Elements

- [ ] Aquatic Study Area
- [ ] Sanctuary or Refuge
- [ ] Wildlife Management Area
- [ ] Fisheries Management Area
- [ ] Educational Study Area
- [ ] Historical Area
- [ ] Other

## Topographical Elements

Topographic Configuration
- [ ] Closed Basin
- [■] Semi-closed Basin
- [ ] Valley
- [ ] Hillside

Wetland Gradient
- [■] Slight 0-3%
- [ ] Steep 3%

Surrounding Slopes
- [■] Slight 0-3%
- [ ] Steep 3%

Topographic Position in Watershed
- [ ] Upper
- [■] Intermediate
- [ ] Lower

## Geological Elements

Surficial Material
- [ ] Till
- [■] Stratified Sand and Gravel
- [ ] Stratified Fine Sand and Silt
- [ ] Alluvium

Bedrock
- [■] Igneous and Metaporphic
- [ ] Sedimentary

Organic Material
- [ ] Absent
- [■] High Permeability
- [ ] Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

## Hydrological Elements

Hydrologic Position
- [ ] Perched Wetland
- [■] Water Table Wetland
- [ ] Water Table/Artesian Wetland
- [ ] Artesian Wetland

Transmissivity of Aquifer
- [ ] Low <10,000 gal/day/ft
- [■] Moderate 10,000 - 40,000 gal/day/ft
- [ ] High> 40,000 gal/day/ft

Dominant Hydrologic Type
- [ ] Condition 1
- [ ] Condition 2
- [ ] Condition 3
- [ ] Condition 4
- [■] Condition 5
- [ ] Condition 6

Hydrologic Connection
- [ ] Not Part of Riparian System
- [■] Part of Riparian System

Water Level Fluctuation
- [ ] High
- [■] Low
- [ ] Vernal Pool

Groundwater Outflow
- [ ] Absent
- [■] Present

Inlet
- [ ] Absent
- [■] Present, from wetland 21.7
- [ ] Perennial
- [■] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
- [ ] Perennial
- [ ] Ephemeral

Inlet
- [ ] Absent
- [ ] Present, from wetland ___
- [ ] Perennial
- [ ] Ephemeral

Size
- [■] Large >4.6 acres
- [ ] Medium 1.1-4.5
- [ ] Small <1 acre

Surficial Geologic Material of watershed
- [ ] Till
- [■] Stratified sand and gravel
- [ ] Stratified fine sand and silt
- [ ] Alluvium

Percent Wetland Bordering Open Water
- [■] <33%
- [ ] 34-66%
- [ ] 67-100%
- [ ] Does not border

Legal Access
- [ ] Yes
- [■] No

Fetch
- [ ] Over 2000 ft.
- [ ] Under 2000 ft.

Depth of Lake
- [ ] Deep >6 ft.
- [ ] Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- [■] Connected to a Small Stream
- [ ] Connected to a River
- [ ] Connected to a Lake
- [ ] Connected to a Combination

Access to Public
- [■] Within 100 ft of Road
- [ ] Access by Passable Waterway
- [ ] Isolated

Surrounding Population Density
- [■] <1 person/acre (<320/mi²)
- [ ] 0.5 - 1.9 p/a (430-1220/mi²)
- [ ] 2 p/a (1220/mi²)

Local Scarcity
- [■] 200 ft to nearest similar type
- [ ] 201 to 1000 ft to nearest similar type
- [ ] 1000 ft to nearest similar type

Known Crop Value or Potential
- [■] None
- [ ] Supports 1 family for part of year
- [ ] Completely supports 1 family
- [ ] Supports viable commercial interest

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# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B

WETLAND NUMBER Z 19

FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S) _____

ACREAGE 3.54

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 3.54 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 3.54 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Abies balsamea | | ✓ | |
| (Balsam Fir) | | | |
| Picea mariana | | ✓ | |
| (Black Spruce) | | | |
| Thuja occidentalis | ✓ | | |
| (Arbor Vitae) | | | |
| Alnus rugosa | | ✓ | |
| (Speckled Alder) | | | |
| Impatiens capensis | | ✓ | |
| (Jewelweed) | | | |
| Nasturtium officinale | ✓ | | |
| (Watercress) | | | |
| Populus tremuloides | | ✓ | |
| (Quaking Aspen) | | | |
| Equisetum sp. | ✓ | | |
| (Horsetail) | | | |
| Acer rubrum | | ✓ | |
| (Red Maple) | | | |
| Cinna arundinacea | | ✓ | |
| (Wood Reedgrass) | | | |
| Lycopus virginicus | ✓ | | |
| (Water-Horehound) | | | |
| Sorbus americana | ✓ | | |
| (Mountain Ash) | | | |
| Cornus canadensis | ✓ | | |
| (Bunchberry) | | | |
| Campanula aparinoides | ✓ | | |
| (Marsh-Bluebell) | | | |
| Linnaea borealis | ✓ | | |
| (Twin Flower) | | | |

## inventory

number Z 19

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Unmrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (lateral Diversity)
- >10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- <50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 75% or >25 Scattered
- 100% Cover; 75% or >25% Peripheral

Percent Open Water
- 0-33%
- 34-66%
- 67-95%
- 96-100%

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

| | | | |
|---|---|---|---|
| Coptis groenlandica | | ✓ | |
| (Goldthread) | | | |
| Clintonia borealis | | ✓ | |
| (Corn-Lily) | | | |

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland 218
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Size
- Large >4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open water
- <33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- >1 Person/acre (>320/mi²)
- 0.5 - 1.0 p/a (430-1220/mi²)
- <.5 p/a (<1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland Swamp Creek
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland ___
  - Perennial
  - Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z20
FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S)

ACREAGE 42.09

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 16.99 | | SHALLOW MARSH |
| | | DEEP MARSH |
| 4.41 | | SHRUB SWAMP |
| 15.86 | | WOODED SWAMP |
| 4.17 | | BOG |
| 0.66 | | OTHER Open Water |
| 42.09 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex atherodes | | | X |
| (Sedge) | | | |
| Calamagrostis canadensis | | X | |
| (Blue-joint Grass) | | | |
| Glyceria canadensis | X | | |
| (Rattlesnake Grass) | | | |
| Alnus rugosa | | X | |
| (Speckled Alder) | | | |
| Chamaedaphne calyculata | X | | |
| (Leatherleaf) | | | |
| Andromeda glaucophylla | X | | |
| (Bog Rosemary) | | | |
| Epilobium glandulosum | X | | |
| (Willow-herb) | | | |
| Phalaris arundinacea | X | | |
| (Reed-Canary-Grass) | | | |
| Acer rubrum | | X | |
| (Red Maple) | | | |
| Ilex verticillata | | X | |
| (Winterberry) | | | |
| Populus tremuloides | | X | |
| (Quaking Aspen) | | | |
| Nemopanthus mucronata | X | | |
| (Mountain Holly) | | | |
| Poa palustris | X | | |
| (Fowl-meadow Grass) | | | |
| Amelanchier laevis | X | | |
| (Shadbush) | | | |
| Typha latifolia | X | | |
| (Cattail) | | | |

## inventory

**number** Z20

**date** 8/17/82

**field investigator(s)**

D. Magee

**water quality**

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Saplings
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

### Ecological Elements

Dominant wetland Class
- Stream or Brookside wetland
- Open Fresh water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Seasonally Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- None
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (lateral Diversity)
- 3+
- 2
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 75% or more of Listed Types
- 50-75% of 3 or more, 90% of 1
- 50% or 3 or more of Listed Types

Upland Type
- 75% Scattered
- 25-75% Peripheral
- 25% Scattered
- Other, 25% or less Peripheral

Riparian Open Water
- 25%+
- 10-25%
- 5-10%
- 1-5%
- Trace

Vegetative Interspersion Richness
- High
- Moderate
- Low

Proximity of wetland to Flood Plains
- Low
- Moderate
- High

Vegetative Diversity
- High
- Moderate
- Low

Wetland Sustenance from
- Overall Topography
- Hydrological Connectivity
- Vegetative

### Special Elements

- Study Area
- Wildlife or Refuge
- Management Area
- Historic Monument Area
- Educational Study Area
- Unique Local Area

### Topographical Elements

- Unique Configuration
- Drainage Basin
- Watershed Basin
- Valley
- Hillside

Wetland Gradient
- Flat (0-2%)
- Gentle (2-5%)
- Steep (5%+)

Surrounding Slopes
- Gentle (0-5%)
- Moderate (5-8%)
- Steep (8%+ Position in Watershed)
- Variable
- Other

### Geological Elements

Surficial Material
- Exposed Sand and Gravel
- Stratified Fine Sand and Silt
- Other

Bedrock
- Carbonate Metamorphic
- Igneous
- Other

Soil Material
- Peat
- Mucky Peat/Muck
- Other

Soil Permeability
- Low Permeability
- High Permeability

### Hydrological Elements

Type of Basin
- Drained wetland
- Water Table wetland
- Water Table/Artesian wetland
- Artesian wetland

Transmissivity of Aquifer
- Low (<10,000 gal/day/ft)
- Moderate (10,000 - 40,000 gal/day/ft)
- High (>40,000 gal/day/ft)

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Out Flow & Riverine System
- Out Flow & Lacustrine System
- Other (specify) Isolated

Water Level Fluctuation
- High
- Low
- Vertical Drop

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 21
FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S) _____

ACREAGE 3.52

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 3.52 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 3.52 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Abies balsamea (Balsam Fir) | | ✓ | |
| Picea mariana (Black Spruce) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Ledum groenlandicum (Labrador Tea) | | ✓ | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Lycopus virginicus (Water-Horehound) | ✓ | | |
| Nemopanthus mucronata (Mountain Holly) | | ✓ | |
| Betula lutea (Yellow Birch) | ✓ | | |
| Cinna arundinacea (Wood Reedgrass) | | ✓ | |
| Carex trisperma (Sedge) | ✓ | | |
| Cornus canadensis (Bunchberry) | ✓ | | |
| Osmunda cinnamonea (Cinnamon Fern) | | ✓ | |
| Equisetum sp. (Horsetail) | ✓ | | |
| Carex sp. (Sedge) | ✓ | | |
| Coptis groenlandica (Goldthread) | ✓ | | |
| Ilex verticillata (Winterberry) | ✓ | | |
| Acer rubrum (Red Maple) | | ✓ | |
| Fraxinus americana (White Ash) | ✓ | | |
| F. pennsylvanica var. subintegerrima (Green Ash) | ✓ | | |

## inventory

number Z 21

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

### Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 8-9
- 6-7
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- 50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or 25 Scattered
- 100% Cover; 25% or 25% Peripheral

Percent Open Water
- 0-33
- 33-66
- 67-90
- 90-100

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

### Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

### Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-Closed Basin
- Valley
- Hillside

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |

Wetland Gradient
- Slight 0-3
- Steep 3+

Surrounding Slopes
- Slight 0-3
- Steep 3+

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

### Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

### Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low 10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Size
- Large >4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Surficial Geologic Material
- of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent wetland Bordering
- Open water
- 0-33%
- 34-66%
- 67-100%
- Trees not border

Legal Access
- Yes
- No

Fetch
- Over 1000 ft.
- Under 1000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

### Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- 1 dwelling/acre (>2.5/ha)
- 0.5 - 1.9 d/a (430-1220/mi²)
- <.2 d/a (<1220/mi²)

Local Scarcity
- <200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B
WETLAND NUMBER Z 22
FLIGHT, PHOTO NUMBER(S) 6-44

MAP NUMBER(S)

ACREAGE 18.16

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 9.27 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 6.77 | | WOODED SWAMP |
| | | BOG |
| 2.12 | | OTHER Open Water |
| 18.16 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Calamagrostis canadensis (Blue-joint Grass) | | | ✓ |
| Spiraea latifolia (Meadow-sweet) | | ✓ | |
| Alnus rugosa (Speckled Alder) | | ✓ | |
| Carex atherodes (Sedge) | | ✓ | |
| Nymphaea odorata (Water-lily) | | ✓ | |
| Nuphar variegatum (Bullhead-lily) | | ✓ | |
| Scirpus atrocinctus (Bulrush) | ✓ | | |
| Acer rubrum (Red Maple) | | ✓ | |
| Populus tremuloides (Quaking Aspen) | | ✓ | |
| Ilex verticillata (Winterberry) | | ✓ | |
| Nemopanthus mucronata (Mountain Holly) | ✓ | | |
| Vaccinium augustifolium (Low Sweet Blueberry) | ✓ | | |
| Quercus alba (White Oak) | ✓ | | |
| Glyceria canadensis (Rattlesnake Grass) | | ✓ | |

## inventory

number 2 22

date 8/17/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- 50% of 1 or more of Listed Types

Cover Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or 25 Scattered
- 100% Cover; 75% or <25% Peripheral

Percent Open Water
- 0-33
- 34-66
- 67-95
- 96-100

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-2
- Steep 3+

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High >40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- <33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 150 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- <1 Person/acre (<2.5/ha)
- 0.5 - 1.9 p/a (430-1220/mi²)
- 2 p/a (1220/mi²)

Local Scarcity
- 200-ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 82-47B

WETLAND NUMBER Z 23

FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 106.10

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 106.10 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 106.10 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Abies balsamea (Balsam Fir) | | ✓ | |
| Picea mariana (Black Spruce) | ✓ | | |
| Alnus rugosa (Speckled Alder) | ✓ | | |
| Carex trisperma (Sedge) | | ✓ | |
| Acer spicatum (Mountain Maple) | | ✓ | |
| Cinna arundinacea (Wood Reedgrass) | | ✓ | |
| Thuja occidentalis (Arbor Vitae) | | ✓ | |
| Clintonia borealis (Corn-Lily) | | ✓ | |
| Coptis groenlandica (Goldthread) | | ✓ | |
| Fraxinus pennsylvanica var. subintegerrima (Green Ash) | | ✓ | |
| Ribes glandulosum (Skunk Current) | ✓ | | |
| Sphagnum sp. (Sphagnum Moss) | | ✓ | |
| Galium sp. (Cleavers Bedstraw) | ✓ | | |
| Circaea canadensis (Enchanter's Nightshade) | ✓ | | |
| Acer rubrum (Red Maple) | ✓ | | |

## inventory

number Z 23

date 8/18/82

field investigator(s)

D. Magee

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Open Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 1
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 6-9
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of Listed Types
- 50-90% of 1 or more; 90% of 1
- 50% of 1 or more of Listed Types

Econe Type
- 26-75% Scattered
- 26-75% Peripheral
- 25% or less Scattered
- 100% Covers; 75% or more Peripheral

Percent Open Water
- 0-25
- 26-66
- 67-95
- 96-100

Vegetative Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Sloping Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Till
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |

## Hydrological Elements

Hydrologic Position
- Perched wetland
- Water Table wetland
- Water Table/Artesian Wetland
- Artesian wetland

Transmissivity of Aquifer
- Low 10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Mole Lake RIA

Rollin Stone Lake

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent wetland Fringing Open Water
- 33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep 6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- [illegible] per sq mi (<250/km²)
- 0.5 - 1.9 p/a (430-1220/mi²)
- [illegible] (>1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z24
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 4.40

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 3.41 | | SHRUB SWAMP |
| 0.99 | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 4.40 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Alnus rugosa | | | X |
| (Speckled Alder) | | | |
| Carex trisperma | | X | |
| (Three-Seeded Sedge) | | | |
| Salix sp. | X | | |
| (Willow) | | | |
| Viola pallens | | X | |
| (White Violet) | | | |
| Iris sp. | | X | |
| (Iris) | | | |
| Picea mariana | | | X |
| (Black Spruce) | | | |
| Abies balsamea | | X | |
| (Balsam Fir) | | | |
| Pyrus americana | | X | |
| (American Mountain-Ash) | | | |
| Ribes glandulosum | | X | |
| (Skunk Currant) | | | |
| Nemopanthus mucronata | X | | |
| (Mountain - Holly) | | | |
| Acer rubrum | X | | |
| (Red Maple) | | | |
| Amelanchier laevis | X | | |
| (Shadbush) | | | |
| Populus tremuloides | X | | |
| (Trembling Aspen) | | | |
| Maianthemum canadense | | X | |
| (Canada Mayflower) | | | |
| Coptis groenlandica | X | | |
| (Goldthread) | | | |

## inventory

number Z24

date 6/7/83

field investigator(s)

D. Magee

G. Hollands

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

| | | | |
|---|---|---|---|
| Rumex orbiculatus | X | | |
| (Water Dock) | | | |

## Ecological Elements

Dominant Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Nearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 8-9
- 6-7
- 4-5
- 1-3

Vegetation Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of listed Types
- 10-90% of 2 or more, 90% of 1
- 10-90% of 1 or more of listed types

Cover Type
- 75-100% Scattered
- 25-75% Peripheral
- 10-25% Scattered
- 10-25% Strung, 75-100% Peripheral

Dominant Open Water
- Large
- Small
- Ponds
- None

Vegetation Canopy Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- Prime

Vegetation Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Mostly Favorable
- Moderately Favorable
- Mostly Unfavorable

## Special Elements

- Audubon Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-2%
- Steep 3%

Surrounding Slopes
- Slight 0-5%
- Steep 6%

Landscape Position (Vertical) Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Geologic Material
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium
- Organic and Mucky Peat
- Bedrock
- Exposed Water
- Absent
- Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low <10,000 gal/day/ft
- Moderate 10,000 - 45,000 gal/day/ft
- High 45,000+ gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland ___
- Perennial
- Ephemeral

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- 0-33%
- 34-66%
- 67-100%
- Does not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- >3 Persons/acre (>320/mi²)
- 0.6 - 3.0 p/a (430-1220/mi²)
- <0.6 p/a (<1220/mi²)

Local Scarcity
- 200 ft-1/2 nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Higher Crop Value or Potential
- None
- Supports 1 family, for part of year
- Completely supports 1 family
- Supports viable commercial interest

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z25
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 15.96

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 9.90 | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| 6.06 | | BOG |
| | | OTHER _____ |
| 15.96 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Carex stricta | | | X |
| (Tussock Sedge) | | | |
| Spiraea latifolia | X | | |
| (Meadow-Sweet) | | | |
| Chamaedaphne calyculata | | X | |
| (Leather-leaf) | | | |
| Pyrus arbutifolia | | X | |
| (Red Chokeberry) | | | |
| Kalmia polifolia | X | | |
| (Bog-Laurel) | | | |
| Andromeda glaucophylla | X | | |
| (Bog-Rosemary) | | | |
| Picea mariana | X | | |
| (Black Spruce) | | | |
| Larix laricina | X | | |
| (Tamarack) | | | |
| Eriophorum spissum | X | | |
| (Hare's-tail) | | | |
| Vaccinium macrocarpon | X | | |
| (American Cranberry) | | | |
| Sphagnum sp. | | X | |
| (Sphagnum) | | | |

## inventory

**number** Z25

**date** 6/7/83

**field investigator(s)**

D. Magee

G. Hollands

**water quality**

Wetland Subclasses
Stream or Brookside Wetland
Open Fresh Water
Vegetated Subclass
Non Vegetated Subclass
Deep Fresh Marsh
Dead Woody
Shrub
Sub-Shrub
Robust
Narrow-Leaved
Broad-Leaved
Shallow Fresh Marsh
Robust
Narrow-Leaved
Broad-Leaved
Floating-Leaved
Flood Plain/Flats
Emergent
Shrubs and Trees
Wet Meadow
Ungrazed
Grazed
Shrub Swamp
Sapling
Bushy
Compact
Aquatic
Wooded Swamp
Deciduous
Evergreen
Bog
Shrub
Wooded

## Ecological Elements

Important Wetland Class
Stream or Brookside Wetland
Open Fresh Water
Deep Fresh Marsh
Shallow Fresh Marsh
Nearly Elevated Flood Plain
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog
Other
Wetland Class Richness
6
4
3
2
1
Subclass Richness (Lateral Diversity)
5+
4-5
3-4
2-3
1
Vegetative Interspersion
High
Moderate
Low
Surrounding Habitat
20% of 2 or more of Listed Types
50-90% of 1 or more, 90% of 3
20% of 3 or more of Listed Types
Water Type
Mostly Permanent
Mostly Seasonal
Permanent Open Water
Extensive
Moderate
Little
Vegetative Species Richness
High
Moderate
Low
Percentage of Wetland Food Plants
High
Moderate
Low
Vegetative Density
High
Moderate
Low
Wetland Interspersion
Extensively Fragmented
Moderately Fragmented
Little Fragmented

## Special Elements

Research Study Area
Sanctuary or Refuge
Wildlife Management Area
Fisheries Management Area
Educational Study Area
Historical Area
Other

## Topographical Elements

Topographic Configuration
Closed Basin
Semi-closed Basin
Valley
Hillside

Wetland Gradient
Slight 0-3%
Steep 3%
Surrounding Slopes
Slight 0-3%
Steep 3%
Topographic Position in Watershed
Upper
Intermediate
Lower

## Geological Elements

Surficial Material
Unconsolidated Sand and Gravel
Unconsolidated Fine Sand and Silt
Alluvium
Bedrock
Igneous and Metamorphic
Sedimentary
Organic Material
Absent
Low Permeability
High Permeability

## Hydrological Elements

Hydrologic Regime
Perched Wetland
Water Table Wetland
Water Table Riparian Wetland
Artesian Wetland
Transmissive Aquifer
Low (<100 gallons/ft
Moderate (100 - 1000 gallons/day/ft
High (>1000 gallons/ft
Treatment Hydrologic Type
Condition 1
Condition 2
Condition 3
Condition 4
Condition 5
Condition 6
Hydrologic Connection
Not Part of Riparian System
Part of Riparian System
Water Level Fluctuation
High
Low
Normal Pool
Groundwater Outflow
Absent
Present
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Outlet
Absent
Present, to wetland
Perennial
Ephemeral
Outlet
Absent
Present, to wetland
Perennial
Ephemeral

Mole Lake

Mole Lake

Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

Size
Large >4.6 acres
Medium 1.1-4.5
Small <1 acre
Surficial Geologic Material
<5% watershed
Till
Stratified sand and gravel
Stratified fine sand and silt
Alluvium
Persent Wetland Bordering
Open water
33%
34-66%
67-100%
Does not border
Peat Present
Yes
No
Fetch
Over 2000 ft.
Under 2000 ft.
Depth of Lake
Deep >6 ft.
Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
Connected to a Small Stream
Connected to a River
Connected to a Lake
Connective to a Combination
Access to Public
Within 100 ft of Road
Access by Passable Waterway
Isolated
Surrounding Population Density
<0.5 p/a (<320/mi²)
0.5 - 1.5 p/a (430-1220/mi²)
>1 p/a (>1220/mi²)
Local Scarcity
<20 ft to nearest similar type
20 ft - 1990 ft to nearest similar type
>1990 ft to nearest similar type
Other Socio Value or Potential
None
Supports 1 family for part of year
Completely supports 1 family
Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z-26
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 2.19

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| | | WOODED SWAMP |
| 2.19 | | BOG |
| | | OTHER _____ |
| 2.19 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Alnus rugosa | | X | |
| (Speckled Alder) | | | |
| Nemopanthus mucronata | | X | |
| (Mountain Holly) | | | |
| Larix laricina | X | | |
| (Tamarack) | | | |
| Picea mariana | X | | |
| (Black Spruce) | | | |
| Pinus strobus | X | | |
| (White Pine) | | | |
| Acer rubrum | X | | |
| (Red Maple) | | | |
| Chamaedaphne calyculata | | | X |
| (Leather-leaf) | | | |
| Carex sp. | | X | |
| (Sedge) | | | |

## inventory

**number** Z-26

**date** 6/7/83

**field investigator(s)**

D. Magee

G. Hollands

**water quality**

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

Ecological Elements
- Dominant wetland Class
  - Stream or Brookside Wetland
  - Open Fresh Water
  - Deep Fresh Marsh
  - Shallow Fresh Marsh
  - Yearly Flooded Flood Plain
  - Wet Meadow
  - Shrub Swamp
  - Wooded Swamp
  - Bog
  - Other
- Wetland Class Richness
  - 4
  - 3
  - 2
  - 1
- Subclass Richness (Lateral Diversity)
  - 10
  - 6-9
  - 4-5
  - 2-3
- Vegetative Interspersion
  - None
  - Moderate
  - Low
- Surrounding Habitat
  - 50% of 2 or more of Listed Types
  - 50% of 1 or more, 50% of 1 or more of Listed Types
  - 50% of 1 or more of Listed Types
  - Other
- Percent Open water
  - 75-100 Scattered
  - 25-75 Peripheral
  - 10-25 Scattered
  - Other (Open, 25% or less, Peripheral)
- Vegetative Species Richness
  - High
  - Moderate
  - Low
- Presence of Wildlife Food Plants
  - High
  - Moderate
  - Low
- Degree of Diversity
  - High
  - Moderate
  - Low
- Human Interaction
  - Much Evidence
  - Moderate Evidence
  - Little Evidence
  - No Evidence

Special Elements
- Rare or Unique Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Preliminary Natural Area
- Educational Study Area
- Historical Area
- Other

Topographical Elements
- Topographic Configuration
  - Flat or Depression
  - Enclosed Basin
  - Valley
  - Hillside

Surficial Geological Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent wetland Bordering
- Other water
- 33%
- 34-66%
- 67-100%
- Class not bordered

Local Access
- Yes
- No

Patch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep, 6 ft.
- Shallow, 6 ft.

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

Geological Elements
- Surficial Material
  - Stratified Sand and Gravel
  - Mixed Fine Sand and Silt
  - Alluvium
- Bedrock
  - Outcroppings
  - Glacial Material
  - Absent
  - High Permeability
  - Low Permeability

Hydrological Elements
- Hydrologic Function
  - Bordering Wetland
  - Water Table Wetland
  - Water Table/Artesian Wetland
  - Artesian Wetland
- Characteristics of Aquifer
  - Low, less than 640 Gal/day/ft
  - Moderate, 10,000 - 47,000 Gal/day/ft
  - High, 47,000+ Gallons/day/ft
- Dominant Hydrologic Type
  - Constitution 1
  - Constitution 2
  - Constitution 3
  - Constitution 4
  - Constitution 5
  - Constitution 6
- Hydrologic Connection
  - Not Part of Riparian System
  - Part of Riparian System
- Water Level Fluctuation
  - High
  - Low
  - Several Feet
- Groundwater Outflow
  - Absent
  - Present
- Inlet
  - Absent
  - Present, from wetland ___
  - Perennial
  - Ephemeral
- Inlet
  - Absent
  - Present, from wetland ___
  - Perennial
  - Ephemeral
- Inlet
  - Absent
  - Present, from wetland ___
  - Perennial
  - Ephemeral

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |

Size
- Large (4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- 13 ppm (<3.2/km²)
- 0.5 - 3.9 p/m (430-1220/mi²)
- 4 p/m (>1220/mi²)

Local Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Known Cultural Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z27
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 2.88

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| 0.84 | | SHALLOW MARSH |
| | | DEEP MARSH |
| 2.04 | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 2.88 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Salix sericea | | | X |
| (Silky Willow) | | | |
| S. bebbiana | | X | |
| (Long-beaked Willow) | | | |
| Alnus rugosa | X | | |
| (Speckled Alder) | | | |
| Onoclea sensibilis | | X | |
| (Sensitive Fern) | | | |
| Populus tremuloides | | X | |
| (Trembling Aspen) | | | |
| Spiraea latifolia | X | | |
| (Meadow-Sweet) | | | |
| Carex stricta | | X | |
| (Tussock Sedge) | | | |
| Typha latifolia | X | | |
| (Cat-tail) | | | |

## inventory

number Z27

date 6/7/83

field investigator(s)

D. Magee

G. Hollands

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Adjacent Wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 6
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 10
- 8-9
- 6-7
- 4-5
- 2-3
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 60% or 2 or more of Listed Types
- 60% or 1 or more, 40% of 1
- Less than 1 or more of Listed Types

Cover Type
- 75-100% Scattered
- 75-100% Peripheral
- 25-75% Scattered
- 10% Covers, 75% or 25% Peripheral

Percent Open Water
- 75-90%
- 25-75%
- 10-25%
- Inclusion

Vegetative Species Richness
- Low
- Medium
- High

Interspersion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetative Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Slightly Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-Closed Basin
- Valley
- Hillside

Percent Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Relative Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Unknown
- Stratified Sand and Gravel
- Stratified Fine Sand and Silt
- Alluvium

Bedrock
- Igneous and Metamorphic
- Sedimentary

Organic Material
- Absent
- High Permeability
- Low Permeability

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

## Hydrological Elements

Hydrologic Position
- Perched Wetland
- Water Table Wetland
- Water Table/Artesian Wetland
- Artesian Wetland

Transmissivity of Aquifer
- Low - 15,000 gal/day/ft
- Moderate 15,000 - 40,000 gal/day/ft
- High - 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Seasonal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland ___
  - Perennial
  - Ephemeral

Size
- Large >4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering Open Water
- 33%
- 34-66%
- 67-100%

Emergent Plant Number

Logs / Debris
- Yes
- No

Fetch
- Over 1000 ft.
- Under 1000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 300 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- Not Developed (<320/mi²)
- Developed (320-1220/mi²)
- Urban (>1220/mi²)

Visual Scarcity
- 200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Another Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z28
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 16.26

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 6.21 | | WOODED SWAMP |
| 10.05 | | BOG |
| | | OTHER _____ |
| 16.26 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Chamaedaphne calyculata | | | X |
| (Leather-leaf) | | | |
| Ledum groenlandicum | | X | |
| (Labrador Tea) | | | |
| Kalmia polifolia | X | | |
| (Bog-Laurel) | | | |
| Larix laricina | X | | |
| (Tamarack) | | | |
| Picea mariana | X | | |
| (Black Spruce) | | | |
| Sphagnum sp. | | X | |
| (Sphagnum) | | | |
| Eriophorum spissum | | X | |
| (Hare's-tail) | | | |
| Scirpus cyperinus | X | | |
| (Wool-grass) | | | |
| Betula pumila | | X | |
| (Swamp-Birch) | | | |
| Alnus rugosa | | | |
| (Speckled Alder) | | | |

## inventory

number Z28

date 6/7/83

field investigator(s)

D. Magee

G. Hollands

water quality

wetland Subclasses
Stream or Brook-side Wetland
Open Fresh Water
Vegetated Subclass
Non Vegetated Subclass
Deep Fresh Marsh
Dead Woody
Shrub
Sub-Shrub
Robust
Narrow-Leaved
Broad-Leaved
Shallow Fresh Marsh
Robust
Narrow-Leaved
Broad-Leaved
Floating-Leaved
Flood Plain/Flats
Emergent
Shrubs and Trees
Wet Meadow
Ungrazed
Grazed
Shrub Swamp
Sapling
Bushy
Impact
Aquatic
Wooded Swamp
Deciduous
Evergreen
Bog
Shrub
Wooded

Ecological Elements
Dominant wetland Class
Stream or Brook-side Wetland
Open Fresh Water
Deep Fresh Marsh
Shallow Fresh Marsh
Yearly Flooded Flood Plain
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog
Other
Wetland Class Richness
1
2
3
Subclass Richness (Lateral Diversity)
1
2
3
4-5
6-8
Vegetative Interspersion
High
Moderate
Low
Surrounding Habitat
One of 3 or more of Listed Types
One of 3 or more, 90% of
One of 3 or more of Listed Types
Open Water
None
Some Scattered
Some Peripheral
Some 2% Scattered
Some Bushy, Thick or 25% Peripheral
Percent Open Water
0-5
5-25
25-75
75-100
Vegetative Interspersion Richness
Low
Medium
High
Proximity of Wildlife Food Plants
Low
Moderate
High
Vegetative Density
Low
Moderate
High
Wetland Systematics
Simply Taxonomic
Moderately Taxonomic
Highly Taxonomic

Special Elements
Adjacent Study Area
Sanctuary or Refuge
Wildlife Management Area
Fisheries Management Area
Educational Study Area
Historical Area
Other

Topographical Elements
Topographic Situation
Mountain Basin
Mountainous Basin
Valley
Hillside

wetland Gradient
Slight 0-3%
Steep 3%
Surrounding Slopes
Low 0-3%
Steep 3%
Elevation Position in watershed
Upper
Middle
Lower

Geological Elements
Depth of Material
Bedrock Near Surface
Bedrock Very Deep or Steep
Bedrock at
Parent Material
Organic and Mineral
Organic
Mineral
Depth of Water at
Drawdown
Less Permeability
Low Permeability

Hydrological Elements
Hydrologic Position
Perched Wetland
Water Table Wetland
Water Table Interior Wetland
Exterior Wetland
Transmissivity of Aquifer
Low - 10,000 gal/sq.ft.
Moderate 10,000 - 25,000 gal/day/ft
High 25,000+ gal/day/ft
Dominant Hydrologic Type
Condition 1
Condition 2
Condition 3
Condition 4
Condition 5
Condition 6
Hydrologic Connection
Not Part of Riparian System
Part of Riparian System
Water Level Fluctuation
High
Low
Seldom Dry
Groundwater Outflow
Absent
Present
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral
Inlet
Absent
Present, from wetland
Perennial
Ephemeral

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
Large >4.6 acres
Medium 1.1-4.5
Small <1 acre
Superficial Geologic Material
of watershed
Till
Stratified Sand and Gravel
Stratified Fine Sand and Silt
Alluvium
Percent Wetland Bordering
Open Water
0%
1-33%
34-66%
67-100%
Does not border
Road Access
Yes
No
Fence
Over 200% ft.
Under 200 ft.
East of Lake
Over 6 ft.
Shallow <6 ft.

Social-economical Elements
Hydrologic Connection
Connected to a Small Stream
Connected to a River
Connected to a Lake
Connected to a Combination
Access to Public
Within 100 ft of Road
Access by Passable Waterway
Isolated
Surrounding Population Density
<0.5 Person/acre (<320/mi²)
0.5 - 1.9 p/a (430-1220/mi²)
>1.9 p/a (>1220/mi²)
Local Scarcity
<200 ft. to nearest similar type
201 to 1000 ft to nearest similar type
1002 ft to nearest similar type
Human Crop Value or Potential
None
Supports 1 family for part of year
Completely supports 1 family
Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z29
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 45.65

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| | | SHRUB SWAMP |
| 8.51 | | WOODED SWAMP |
| 34.55 | | BOG |
| 2.59 | | OTHER Open Water |
| 45.65 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Chamaedaphne calyculata | | | X |
| (Leather-leaf) | | | |
| Ledum groenlandicum | | X | |
| (Labrador Tea) | | | |
| Kalmia polifolia | | X | |
| (Bog-Laurel) | | | |
| Eriophorum spissum | | X | |
| (Hare's-Tail) | | | |
| Sphagnum sp. | | | X |
| (Sphagnum) | | | |
| Picea mariana | X | | |
| (Black Spruce) | | | |
| Pinus strobus | X | | |
| (White Pine) | | | |
| P. sylvestris | X | | |
| (Scotch Pine) | | | |
| Vaccinium oxycoccos | X | | |
| (Small Cranberry) | | | |
| Andromeda glaucophylla | X | | |
| (Bog-Rosemary) | | | |
| Larix laricina | X | | |
| (Tamarack) | | | |
| Salix sericea | X | | |
| (Silky Willow) | | | |
| Carex stricta | | | X |
| (Tussock Sedge) | | | |

## inventory

number Z29

date 6/7/83

field investigator(s)

D. Magee

G. Hollands

water quality

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
  - Vegetated Subclass
  - Non Vegetated Subclass
- Deep Fresh Marsh
  - Dead Woody
  - Shrub
  - Sub-Shrub
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
- Shallow Fresh Marsh
  - Robust
  - Narrow-Leaved
  - Broad-Leaved
  - Floating-Leaved
- Flood Plain/Flats
  - Emergent
  - Shrubs and Trees
- Wet Meadow
  - Ungrazed
  - Grazed
- Shrub Swamp
  - Sapling
  - Bushy
  - Compact
  - Aquatic
- Wooded Swamp
  - Deciduous
  - Evergreen
- Bog
  - Shrub
  - Wooded

## Ecological Elements

Dominant wetland Class
- Stream or Brookside Wetland
- Open Fresh Water
- Deep Fresh Marsh
- Shallow Fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other

Wetland Class Richness
- 5
- 4
- 3
- 2
- 1

Subclass Richness (Lateral Diversity)
- 3+
- 2-3
- 2
- 1-2
- 1

Vegetative Interspersion
- High
- Moderate
- Low

Surrounding Habitat
- 90% of 2 or more of listed Types
- 50-90% of 3 or more, 90% of 2
- 50% of 3 or more of listed Types

Edge Type
- 75-100% Scattered
- 26-75% Peripheral
- 25% or 25% Scattered
- 10% Cover, 25% or 75% Peripheral

Percent Open water
- 0%
- 1-25%
- 26-50%
- 51-100%

Vegetation Species Richness
- Low
- Medium
- High

Proportion of Wildlife Food Plants
- Low
- Moderate
- High

Vegetation Density
- High
- Moderate
- Low

Wetland Juxtaposition
- Highly Favorable
- Moderately Favorable
- Unfavorable

## Special Elements

- Aquatic Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other

## Topographical Elements

Topographic Configuration
- Closed Basin
- Semi-closed Basin
- Valley
- Hillside

| unusual, rare, or endangered vegetation | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| unusual, rare, or endangered fauna | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Wetland Gradients
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Approximate Position in Watershed
- Upper
- Intermediate
- Lower

## Geological Elements

Surficial Material
- Clay
- Stratified Sand and Gravel
- Stratified Sand and Gravel
- Sand
- Bedrock
- Organic Material
  - Absent
  - High Permeability
  - Low Permeability

## Hydrological Elements

Hydrologic Position
- Perched wetland
- Water Table wetland
- Water Table/Artesian wetland
- Artesian wetland

Transmissivity of Aquifer
- Low 10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Vernal Pool

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Inlet
- Absent
- Present, from wetland ___
  - Perennial
  - Ephemeral

Size
- Large >4.6 acres
- Medium 1.1-4.5
- Small <1 acre

Surficial Geologic Material of watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent wetland Bordering Open water
- <33%
- 34-66%
- 67-100%
- Does not border

Local Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Deep >6 ft.
- Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- >1 Person/acre (>320/mi²)
- 0.5 - 1.0 p/a (430-1220/mi²)
- <0.5 p/a (<220/mi²)

Local Scarcity
- <200 ft to nearest similar type
- 201 to 1000 ft to nearest similar type
- >1000 ft to nearest similar type

Known Crop Value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

Outlet
- Absent
- Present, to wetland
  - Perennial
  - Ephemeral

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74

WETLAND NUMBER Z30

FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 1924.70, 290.90*

| | ACREAGE | PERCENT | |
|---|---|---|---|
| | | | WET MEADOW |
| | | | SHALLOW MARSH |
| | | | DEEP MARSH |
| | | | SHRUB SWAMP |
| 139.00* | 1386.00 | | WOODED SWAMP |
| 151.90* | 528.90 | | BOG |
| | 9.80 | | OTHER Open Water |
| 290.90* | 1924.70 | | TOTAL |

* Wetland acreage within the supplemental wetlands study area.

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Alnus rugosa | | | X |
| (Speckled Alder) | | | |
| Salix sp. | | X | |
| (Willow) | | | |
| Carex stricta | | | X |
| (Tussock Sedge) | | | |
| Picea mariana | | | X |
| (Black Spruce) | | | |
| Larix laricina | | X | |
| (Tamarack) | | | |
| Sphagnum sp. | | X | |
| (Sphagnum) | | | |
| Abies balsamea | | X | |
| (Balsam Fir) | | | |
| Coptis groenlandica | | X | |
| (Goldthread) | | | |
| Nemopanthus mucronata | X | | |
| (Mountain-Holly) | | | |

## inventory

**number** Z30

**date** 6/7/83

**field investigator(s)**

D. Magee

G. Hollands

**water quality**

Wetland Subclasses
Stream or Brookside wetland
Open fresh water
Fresh Marsh
Vegetated Subclass
Non-Vegetated Subclass
Deep Fresh Marsh
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog

Ecological Elements
Important wetland Class
Open fresh water
Fresh Marsh
Shallow Fresh Marsh
Deep Fresh Marsh
Nearly Flooded Flood Plain
Wet Meadow
Shrub Swamp
Wooded Swamp
Bog
Other
Wetland Class Richness
Vegetative Richness (Natural Diversity)
Vegetative Interspersion
Wildlife Habitat
Percent Open water
Vegetative Special Richness
Percentage of wildlife food Plants
Wetland Juxtaposition

Special Elements
Aquatic Study Area
Sanctuary or Refuge
Wildlife Management Area
Fisheries Management Area
Educational Study Area
Archeological Area

Topographical Elements
Topographic Configuration
Closed Basin
Valley-Confined Basin
Valley
Hillside

Geological Elements

Hydrological Elements
Water Source Function
Perched wetland
Water Table wetland
Water Table Artesian wetland
Artesian wetland
Transmissivity of Aquifer
Low (< 40,000 gal/day/ft
Moderate (40,000 - 67,200 gal/day/ft
High (> 67,200 gal/day/ft)
Dominant Hydrologic Type
Hydrologic Connection
Not Part of a Larger System
Part of a Larger System
Water Level Fluctuation
High
Low
Seasonal Pool
Groundwater Outflow
Absent
Present
Inlet
Absent
Present, from wetland Z28
Perennial
Ephemeral
Inlet
Absent
Present, from wetland ___
Perennial
Ephemeral
Inlet
Absent
Present, from wetland ___
Perennial
Ephemeral

Swamp Creek

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Size
Large >4.6 acres
Medium 1.1-4.6
Small <1 acre
Surficial Geologic Material of watershed
Till
Stratified sand and gravel
Unstratified fine sand and silt
Alluvium
Percent wetland Bordering Open water
0%
34-66%
67-100%
Does not border
Local Access
Yes
No
Fetch
Over 2000 ft.
Under 2000 ft.
Depth of Lake
Deep >6 ft.
Shallow <6 ft.

## Social-economical Elements

Hydrologic Connection
Connected to a Small Stream
Connected to a River
Connected to a Lake
Connected to a Combination
Access to Public
Within 100 ft of Road
Access by Passable waterway
Isolated
Surrounding Population Density
Low (< 0.5 p/a or (< 320/mi²)
Moderate (0.5 - 1.9 p/a (320-1220/mi²)
High (> 1.9 p/a (> 1220/mi²)
Local Scarcity
Not rare to nearest similar type
Rare to 1000 ft to nearest similar type
Rare >1000 ft to nearest similar type
Human Cover value or Potential
None
Supports 1 family for part of year
Completely supports 1 family
Supports viable commercial interest

# WETLAND INVENTORY REPORT

PROJECT NUMBER 83-74
WETLAND NUMBER Z31
FLIGHT, PHOTO NUMBER(S) _____

MAP NUMBER(S) _____

ACREAGE 7.30

| ACREAGE | PERCENT | |
|---|---|---|
| | | WET MEADOW |
| | | SHALLOW MARSH |
| | | DEEP MARSH |
| 7.30 | | SHRUB SWAMP |
| | | WOODED SWAMP |
| | | BOG |
| | | OTHER _____ |
| 7.30 | | TOTAL |

## vegetation

| | occ | com | dom |
|---|---|---|---|
| Alnus rugosa | | | X |
| (Speckled Alder) | | | |
| Ribes lacustre | | X | |
| (Bristly Black Current) | | | |
| Cicuta maculata | X | | |
| (Water-Hemlock) | | | |
| Ulmus americana | | X | |
| (American Elm) | | | |
| Caltha palustris | | X | |
| (Marsh-Marigold) | | | |
| Onoclea sensibilis | | X | |
| (Sensitive Fern) | | | |
| Cornus stolonifera | | X | |
| (Red Osier Dogwood) | | | |
| Sphagnum sp. | | X | |
| (Sphagnum) | | | |
| Thalictrum confine | X | | |
| (Meadow Rue) | | | |

## inventory

**number** Z31

**date** 6/7/83

**field investigator(s)**

D. Magee

G. Hollands

**water quality**

Wetland Subclasses
- Stream or Brookside Wetland
- Open Fresh Water
- Vegetated Subclass
- Non Vegetated Subclass
- Deep Fresh Marsh
- Dead Woody
- Shrub
- Sub-Shrub
- Robust
- Narrow-Leaved
- Broad-Leaved
- Shallow Fresh Marsh
- Robust
- Narrow-Leaved
- Broad-Leaved
- Floating-Leaved
- Flood Plain/Flats
- Emergent
- Shrubs and Trees
- Meadow
- Ungrazed
- Grazed
- Shrub Swamp
- Sapling
- Bushy
- Compact
- Aquatic
- Wooded Swamp
- Deciduous
- Evergreen
- Bog
- Shrub
- Wooden

Ecological Elements
- Dominant wetland Class
- Stream or Brookside Wetlands
- Open fresh water
- Deep fresh Marsh
- Shallow fresh Marsh
- Yearly Flooded Flood Plain
- Wet Meadow
- Shrub Swamp
- Wooded Swamp
- Bog
- Other _____

Wetland Class Richness
- 1
- 2
- 3
- 4
- 5

Subclass Richness (Lateral Diversity)
- 1
- 2
- 3
- 4-6
- 7+

Vegetative Interspersion
- Low
- Moderate
- High

Surrounding Habitat
- 75% of 5 or more of Listed Types
- 25-75% of 5 or more, 75% of 3
- 25% of 5 or more of Listed Types

Edge Type
- Shrub, Scattered
- Shrub, Peripheral
- Shrub, 25% scattered
- Shrub, Peripheral, 25% Peripheral

Permanent Open water
- None
- Small
- Medium
- Large

Percentage of Wetland Covered by Plants
- 10%
- 10-50%
- 50%

Vegetative Diversity
- Low
- Moderate
- High

Wetland Juxtaposition
- Directly Associated
- Moderately Associated
- Slightly Associated

Special Elements
- Public Study Area
- Sanctuary or Refuge
- Wildlife Management Area
- Fisheries Management Area
- Educational Study Area
- Historical Area
- Other _____

Topographical Elements
- Topographic Configuration
- Closed Basin
- Surface Runoff Basin
- Valley
- Hillside

Wetland Gradient
- Slight 0-3%
- Steep 3%

Surrounding Slopes
- Slight 0-3%
- Steep 3%

Topographic Position in Watershed
- Upper
- Intermediate
- Lower

Geological Elements
- Surficial Material
- Organic
- Depth
- Bedrock
- Kind
- Depth
- Water Permeability
- Low Permeability

Hydrological Elements
- Hydrologic Position
- Enclosed wetland
- Water Table wetland
- Water Table/Artesian wetland
- Artesian wetland
- Underlying Stratum Aquifer
- Low 0-10,000 gal/day/ft
- Moderate 10,000 - 40,000 gal/day/ft
- High 40,000 gal/day/ft

Dominant Hydrologic Type
- Condition 1
- Condition 2
- Condition 3
- Condition 4
- Condition 5
- Condition 6

Hydrologic Connection
- Not Part of a Riparian System
- Part of Riparian System

Water Level Fluctuation
- High
- Low
- Varies Much

Groundwater Outflow
- Absent
- Present

Inlet
- Absent
- Present, from wetland
- Perennial
- Ephemeral

Outlet
- Absent
- Present, to wetland
- Perennial
- Ephemeral

Swamp Creek

Size
- Large >4.6 acres
- Medium 1.1-4.6
- Small <1 acre

Surficial Geologic Material
- % watershed
- Till
- Stratified sand and gravel
- Stratified fine sand and silt
- Alluvium

Percent Wetland Bordering
- Open water
- 33%
- 34-66%
- 67-100%
- Over, not border

Legal Access
- Yes
- No

Fetch
- Over 2000 ft.
- Under 2000 ft.

Depth of Lake
- Over 6 ft.
- Shallow <6 ft.

Social-economical Elements

Hydrologic Connection
- Connected to a Small Stream
- Connected to a River
- Connected to a Lake
- Connected to a Combination

Access to Public
- Within 100 ft of Road
- Access by Passable Waterway
- Isolated

Surrounding Population Density
- Not Populated (<32/mi²)
- Low (0.5 - 1.9 pra (430-1220/mi²))
- Medium (1-20/mi²)

Local Scarcity
- 300 ft to nearest similar type
- 300 to 1000 ft to nearest similar type
- 1000 ft to nearest similar type

Human Crop value or Potential
- None
- Supports 1 family for part of year
- Completely supports 1 family
- Supports viable commercial interest

## unusual, rare, or endangered vegetation

| | unus | rare | end |
|---|---|---|---|

## unusual, rare, or endangered fauna

| | unus | rare | end |
|---|---|---|---|

# APPENDIX B

## WETLAND AND WATERSHED AREA DATA

WATERSHED: Z

| Wetland Number | Sub-Type Areas (Acres) | | | | | | | | Minor Watershed Area (Acres) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | S/SW-a | S/SW-b | FW-a | FW-b | EW-b | AB | Untyped | TOTAL | Direct | Cumulative |
| Z1 | - | - | - | - | 3.65 | - | 0.67 | 4.32 | 70.2 | - |
| Z2 | - | - | - | - | 14.70 | - | - | 14.70 | 71.6 | - |
| Z3 | - | - | - | - | 1.18 | - | 0.89 | 2.07 | 42.2 | - |
| Z4 | - | - | - | - | 1.16 | - | 0.34 | 1.50 | 11.3 | - |
| Z5 | | 14.47 | - | 0.48 | - | - | 4.53 | 19.48 | 91.0 | - |
| Z6 | - | - | 38.98 | 5.19 | - | - | - | 44.17 | 257.3 | 471.4 |
| Z7 | - | - | - | 3.42 | - | - | - | 3.42 | 52.1 | - |
| Z8 | - | - | 2.36 | - | - | - | - | 2.36 | 19.4 | - |
| Z9 | - | - | - | 10.40 | - | - | - | 10.40 | 37.3 | 528.1 |
| Z10 | - | 1.74 | 4.25 | 11.62 | 3.11 | - | - | 20.72 | 123.1 | - |
| Z11 | - | - | 26.10 | - | - | - | - | 26.10 | 129.0 | 172.9 |
| Z12 | - | 6.56 | - | - | - | - | - | 6.56 | 43.9 | - |
| Z13 | - | 3.15 | - | - | - | - | - | 3.15 | 23.4 | - |
| Z14 | - | 6.34 | 67.44 | - | - | - | - | 73.78 | Outlet Creek Watershed | |
| Z15 | - | - | 9.42 | - | - | - | - | 9.42 | 44.6 | - |
| Z16 | - | 12.92 | 18.00 | - | - | - | 1.62 | 32.54 | 98.9 | - |

WATERSHED: Z (continued)

| Wetland Number | Sub-Type Areas (Acres) | | | | | | | | Minor Watershed Area (Acres) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | S/SW-a | S/SW-b | FW-a | FW-b | EW-b | AB | Untyped | TOTAL | Direct | Cumulative |
| Z17 | - | - | - | | 2.78 | - | - | 2.78 | 33.5 | - |
| Z18 | - | - | - | 6.47 | - | - | 0.85 | 7.32 | 55.7 | 89.2 |
| Z19 | - | - | 3.54 | - | - | - | - | 3.54 | 39.2 | 135.5 |
| Z20 | 4.17 | 4.41 | - | 15.86 | 16.99 | - | 0.66 | 42.09 | 258.7 | - |
| Z21 | - | - | 2.24 | 1.28 | - | - | - | 3.52 | 43.9 | - |
| Z22 | - | - | 3.19 | 3.58 | 9.27 | - | 2.12 | 18.16 | 109.2 | - |
| Z23 | - | - | 106.10 | - | - | - | - | 106.10 | Pickeral Creek Watershed | |
| Z24 | - | 3.41 | 0.99 | - | - | - | - | 4.40 | 22.27 | - |
| Z25 | 6.06 | - | - | - | 9.90 | - | - | 15.96 | 69.28 | - |
| Z26 | 2.19 | - | - | - | - | - | - | 2.19 | 12.04 | - |
| Z27 | - | 2.04 | - | - | 0.84 | - | - | 2.88 | 11.39 | - |
| Z28 | 10.05 | - | 6.21 | - | - | - | - | 16.26 | 70.05 | - |
| Z29 | 34.55 | - | 8.51 | - | - | - | 2.59 | 45.65 | 135.06 | - |
| Z30* | 151.90 | - | 139.00 | - | - | - | - | 290.90 | 416.50 | - |
| Z31 | - | 7.30 | - | - | - | - | - | 7.30 | 17.18 | - |

* Wetland Z30 has an additional 1633.8 acres located outside of the supplemental wetlands study area, of which 1247.0 acres are wetland type FW-a and 377.0 acres are wetland type S/SW-a. The total watershed area of wetland 230 is 3058.3 acres.