Ed-7 file

CORRESPONDENCE/MEMORANDUM — STATE OF WISCONSIN

Date: June 7, 1983 *File Ref:* 2100

To: David A. Jacobson - Spooner

RECEIVED JUN 10 1983 BUREAU

From: James R. Huntoon - ADM/5

Subject: Approval of the Engle Creek Springs Fishery Area Master Plan, Barron County

On May 25, 1983, the Natural Resources Board ratified the Engle Creek Fishery Area Master Plan. Secretary Besadny had approved the plan on April 25, 1983.

The master plan task force consisting of Chairman Rick Cornelius, John Porter and Dennis Waterman recommended that the 93.59 acres acquired under the Spring Pond Program be included in the property boundary and establishing an acreage goal of 188.27 acres. As 184.17 acres have already been acquired only 4.1 acres needs to be purchased to achieve the acreage goal.

Attached are 20 copies of the approved master plan and the original maps for your district files to answer inquiries by the public and for future use.

The implementation element of the master planning process should be completed next, and you are requested to supply this office with a copy on, or about September 1, 1983.

Please convey my appreciation to the Task Force for a job well done in the completion of this master plan.

HS:tkv

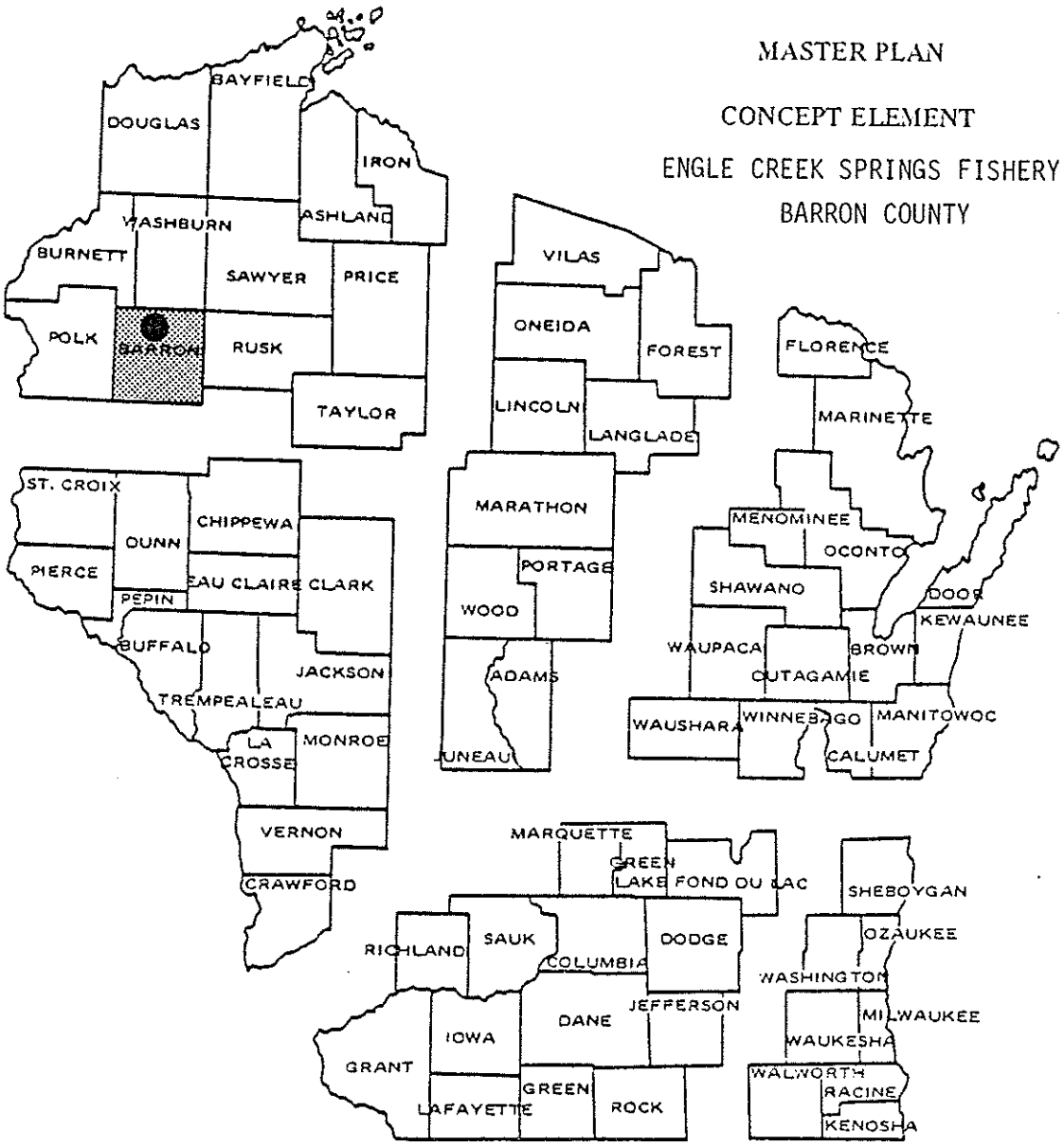
cc: James T. Addis - FM/4
Carl Evert - OL/4
Vern Hacker - Oshkosh
Hal Schwenn - FM/4

MASTER PLAN

CONCEPT ELEMENT

ENGLE CREEK SPRINGS FISHERY AREA

BARRON COUNTY



Property Task Force

Leader- Rick Cornelius - Fish Manager
John Porter - Wildlife Manager
Dennis Waterman - Forester

Approved:

C.D. Besadny - Secretary 4-25-83
Date

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
MADISON, WISCONSIN

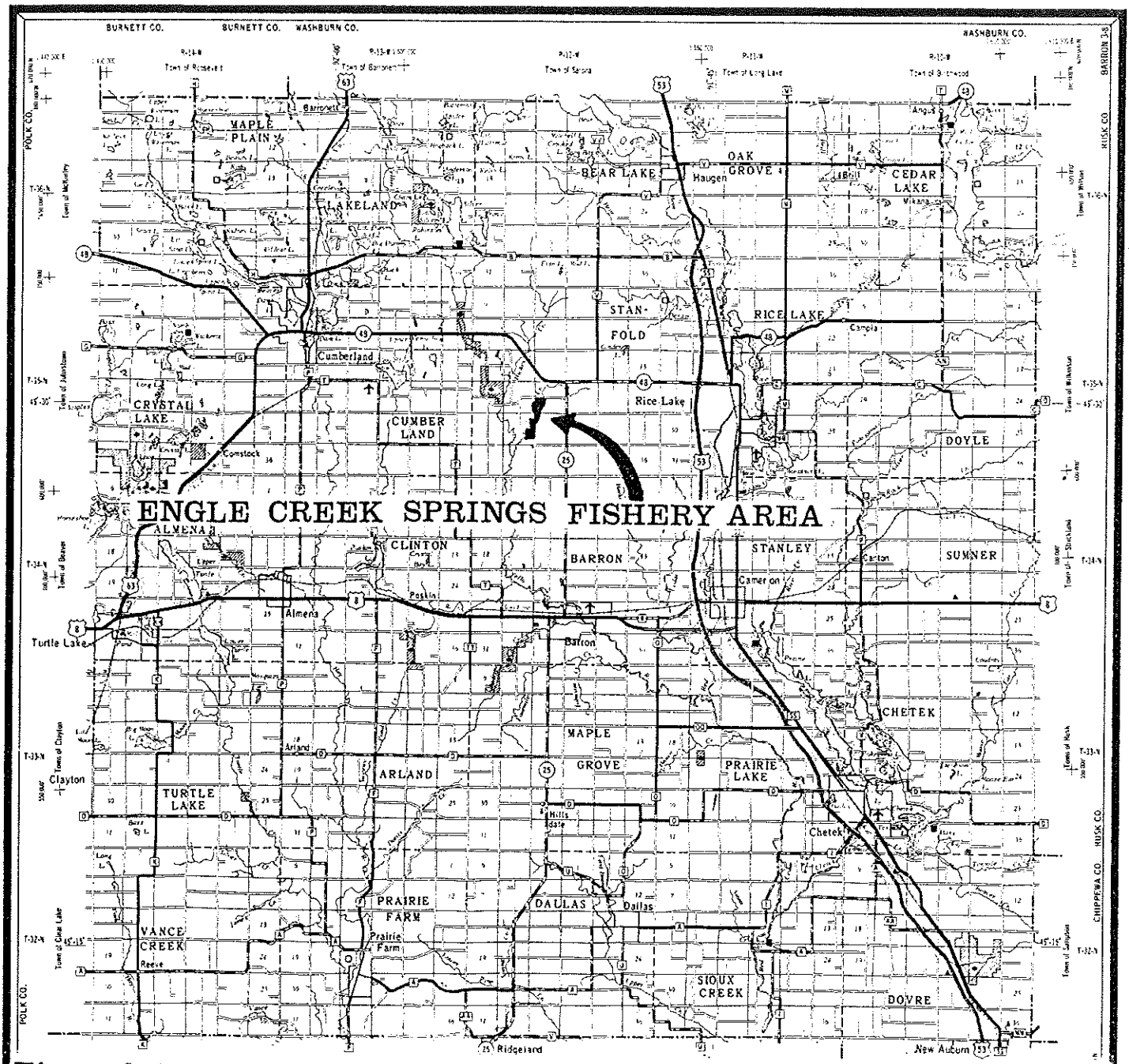
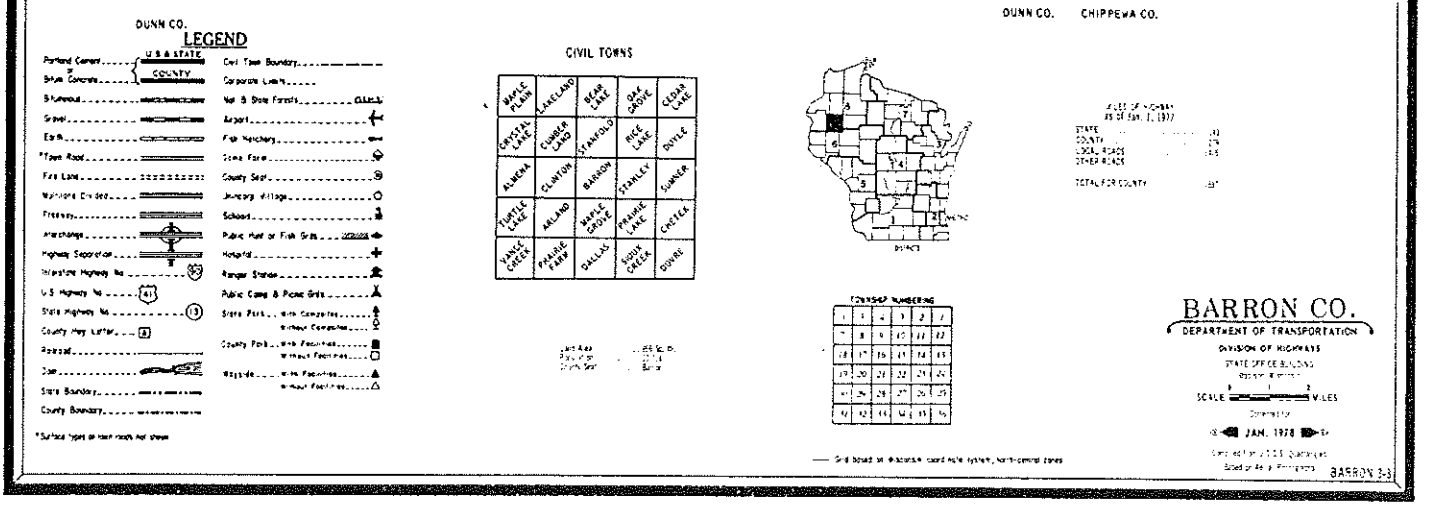


Figure 1. Location–Engle Creek Springs Fishery Area, Barron County.



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SECTION I - ACTIONS

GOALS, ANNUAL OBJECTIVES AND ANNUAL ADDITIONAL BENEFITS

Goals

To manage the Engle Creek Springs Fishery Area, Barron County, in order to maintain a high quality trout fishery and to supply wildlife habitat for hunting and other outdoor recreational and educational activities.

Annual Objectives

1. Provide management of a quality trout fishery to accommodate 450 angler days.

2. Maintain the trout population to allow a harvest averaging 0.7 trout per fishing hour.

3. Develop and manage the existing wildlife resources to accommodate 475 participant days of hunting with 200 for white-tailed deer, 50 for waterfowl, 225 for ruffed grouse, pheasant, squirrels and cottontails and 50 participant days of trapping for beaver, muskrats, and mink.

Additional Benefits

1. Benefit nongame species indigenous to the region, including endangered or threatened species that may occur, or migrate through the area.

2. Accommodate 170 recreational and educational visitations per year with adequate public access and parking for berry picking, hiking, photography and nature study.

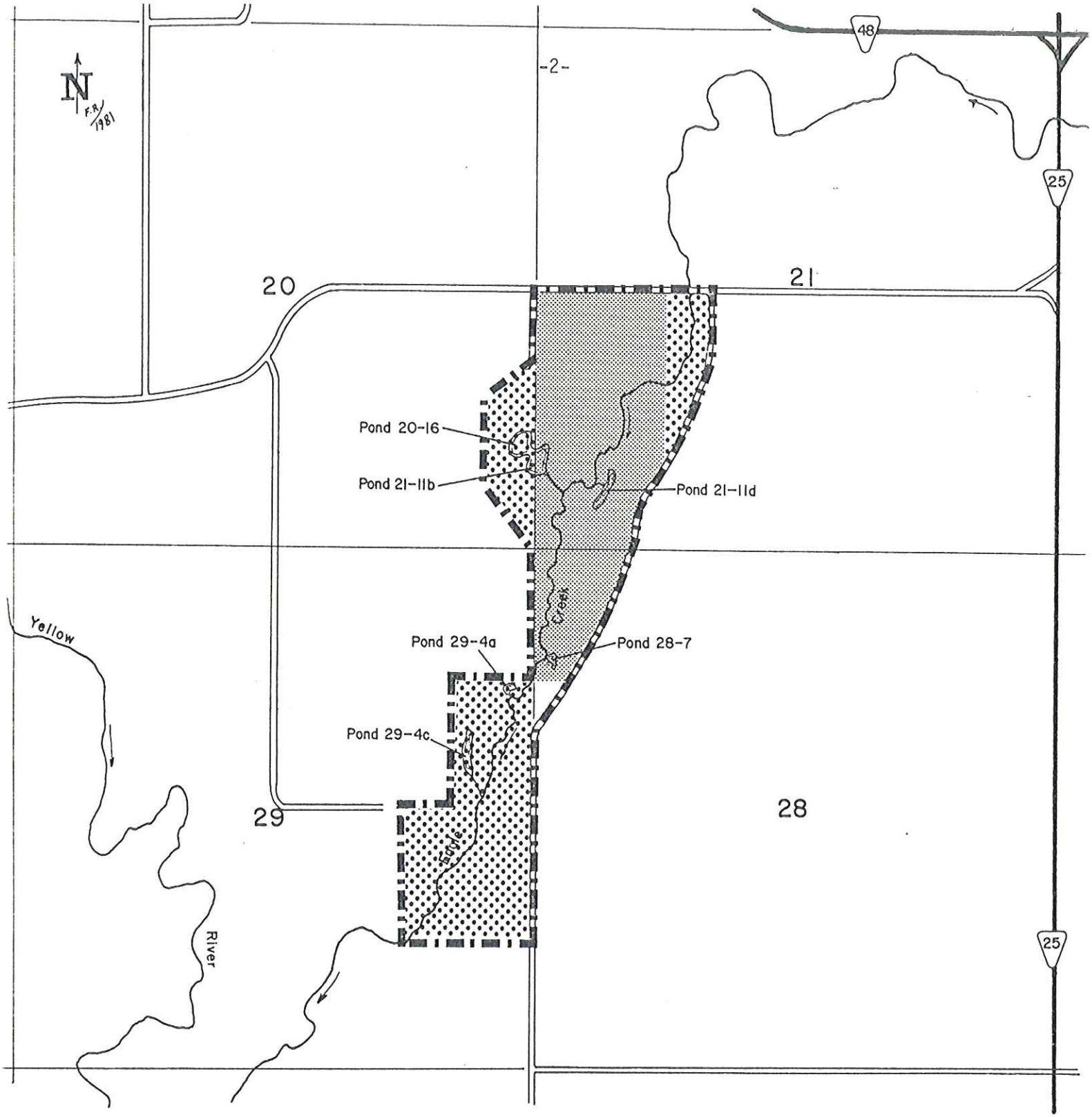
3. Manage the vegetative cover compatibly with the goals of fish and wildlife management and with the aesthetic nature of the area.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

The recommended management program for Engle Creek Springs Fishery Area, Barron County (Figure 1), is the implementation of intensive habitat management. Such management of the stream, spring ponds and surrounding land is necessary to increase fish and wildlife biomass and numbers, and to increase fishing and hunting opportunities.

Engle Creek was established as a fishery area in 1969 and 67.88 acres were acquired in fee title that year. In 1971, 93.59 acres were purchased within the approved property boundary under the Spring Pond Program and in 1972 an additional 22.70 acres were acquired in fee title within the fishery area.

The present approved acreage goal for this fishery area is 161.47 acres. Currently 184.17 acres have been acquired within the property boundary under the Engle Creek Fishery Area and Spring Pond Programs. It is recommended the acreage acquired through the Spring Pond Program be transferred to the Engle Creek Fishery Area and the Northwest District Spring Pond Program acreage be adjusted accordingly. It is recommended that an acreage goal of 188.27 acres be established for this fishery area, and that the property name be changed to Engle Creek Springs Fishery Area (Figure 2), the name that will be used throughout the remainder of this master plan.



(T. 35N. R.12W.
Barron & Shell Lake
Quadrangle Maps)

ENGLE CREEK SPRINGS FISHERY AREA

Scale 1" : 1320'

Figure 2. Property Ownership and Land Use Classification Map.

LEGEND

Property Boundary
State Land—(Acquired under Spring Pond Program)
State Land—(Acquired under Fishery Area Program)
Private Land
Fish & Wildlife Mgt. Area — RD_2 — Entire Property

The remaining 4.1 acres of private land within the property boundary should be purchased when available from a willing seller. At present, the current landowner has no wish to sell. Estimated cost of acquisition is $1,200 - $1,600.

An active program will be undertaken to keep Engle Creek free of beaver dams. This will include keeping beaver populations at a minimum through the use of special trapping seasons and other possible liberal regulations which may be available. Dams will be removed by Department of Natural Resources crews.

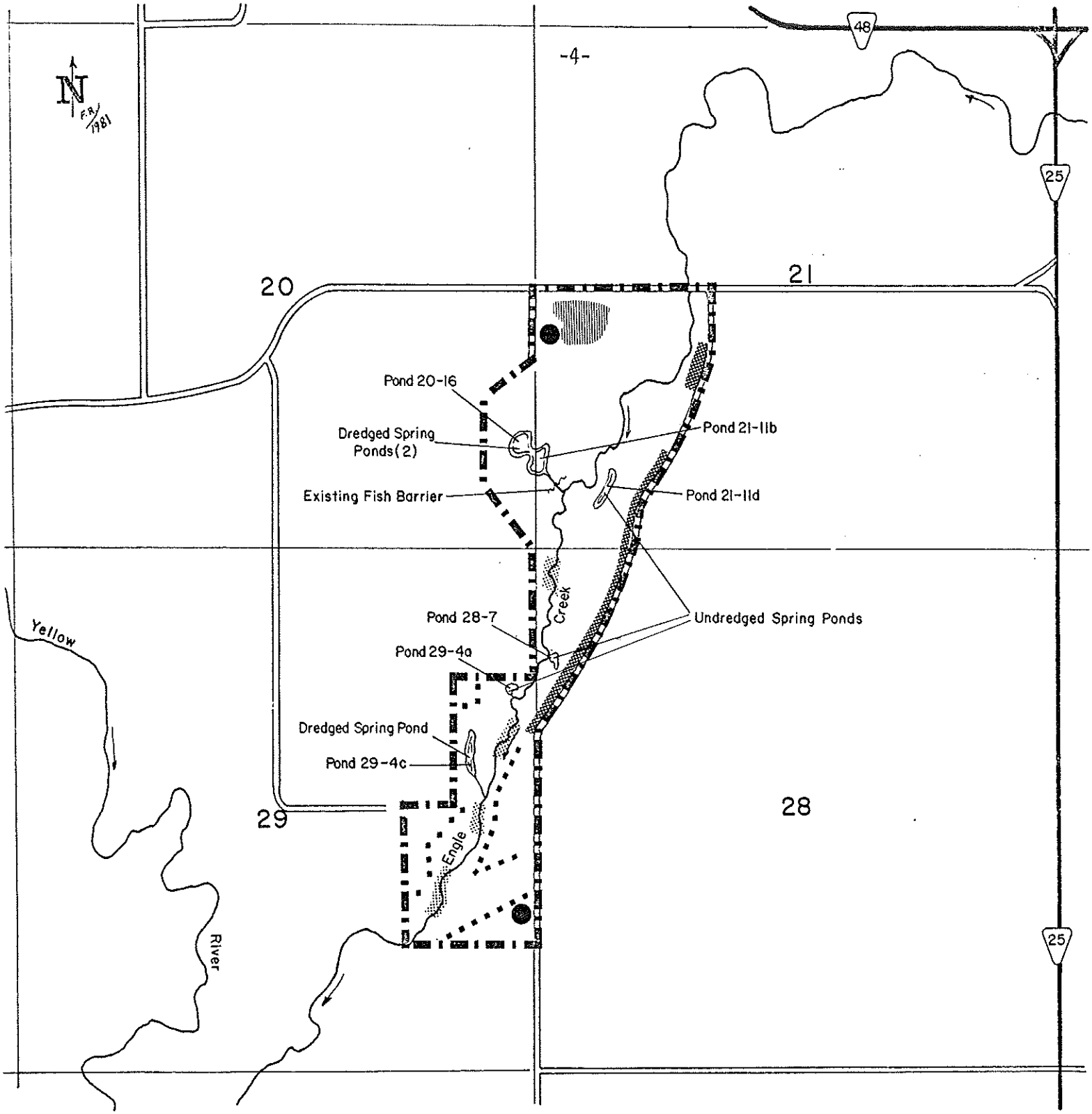
Streambanks with a herbaceous cover type will be managed to prevent the establishment of woody vegetation (Figure 3). In areas where tag alder and willow are present in dense stands on streambanks, they will be removed by cutting. Such removal will increase the productivity and fishability of the stream although it is recognized that there will be loss of avian cover. About 0.6 mile of stream thread will be involved.

The upper 1.2 miles of stream located in the fishery area are too small to warrant any management other than beaver control. The entire stream is too small to warrant intensive instream habitat improvement.

The fishery in the dredged spring ponds will be periodically surveyed and maintained by brook trout stocking as deemed necessary. Surveying these ponds is difficult, and the present affect of fishing pressure on these small ponds is unknown. Attempts will be made to gain additional data on the fishery in the ponds, as well as fishing pressure and harvest, through contacts with fishermen when in the area. A volunteer creel census will also be considered. More restrictive harvest regulations may be necessary if the stocked fish are overharvested early in the season.

The dredged spring ponds still retain from several inches to a foot of flocculent silt covering a hard bottom, which has limited trout natural reproduction. Within the very near future experimental deposits of "hills" of washed pea gravel will be made which will rise above the surface of the silt in areas of upwelling spring water in the ponds in an attempt to stimulate trout natural reproduction. Observations of the experimental deposits will be made to determine if redds are created by spawning trout. All trout stocked in the spring ponds above the barrier will be native trout from the stream that will be marked, to assist in determining if natural reproduction occurs.

Spring ponds 21-11d, 28-7 and 29-4a (Figure 3) within the fishery area have not yet been dredged. They are less suitable for dredging than those completed, because they lie adjacent to the stream and are frequently flooded during high water periods and could refill with sediment in a relatively short period of time. In addition, they are located considerable distances from spoil areas. However, because spring ponds are a highly valuable resource, additional investigations should take place of the feasibility of dredging them. This would include mapping, locating the nearest spoil sites, and exploring alternatives to lessening the flooding and siltation problem. The Soil Conservation Service, Soil and Water Conservation District, and Department of Natural Resources are actively working to correct poor farming practices in the watershed upstream from the fishery area which are contributing to the flooding and siltation problems. Should it be decided to dredge any of the silted spring ponds, the approval process will follow NR 1.95 to allow maximum wetlands protection.



(T.35N. R.12W. Barron & Shell Lake Quadrangle Maps)

ENGLE CREEK SPRINGS FISHERY AREA

Scale 1" : 1320'

Figure 3. Existing and Planned Development Map.

LEGEND

Property Boundary
Existing Parking Area
Existing Pine & Spruce Planting
Proposed Pine & Spruce Planting
Proposed Spruce Planting
Proposed Brushing

Wildlife management will focus primarily on the maintenance and development of diverse habitat types to provide for the critical habitat needs of the greatest number of wildlife species. The present ratio of vegetation types on the project is very good for wildlife; however, some tree, shrub, and dense nesting cover plantings would improve the area.

A 3 acre parcel of flat open land on the southeast corner of the project will be maintained as a permanent opening and managed as nesting habitat for waterfowl and other ground nesting species. The remaining open upland area will be maintained as wildlife openings through the use of chemicals, by mowing, or burning. Approximately 10 acres of white spruce plantings will be established along both sides of the stream on the steep slopes to provide wildlife cover and to improve aesthetic qualities along the stream. The plantings will be in clumps with a minimum spacing of 15 feet to allow for maximum bottom branching to provide the most ideal cover for wildlife. Wildlife shrub plantings will be established around the spruce clumps.

Streamside grass areas resulting from brushing may increase waterfowl nesting habitat, and will also increase habitat for furbearers such as muskrats. Waterfowl nesting improvements will also include the placement of wood duck boxes along the stream.

Seven acres of white pine and white spruce planted in 1980 will be managed for wildlife cover and timber production as outlined in the Silvicultural and Forest Aesthetics Handbook (MC 2431.5), with full consideration for aesthetics. Compartment reconnaissance was completed in the fall of 1980. As each forest stand is too small to manage individually, commercial harvesting should be set up to accomplish the silvicultural needs of the entire fishery area in one sale at approximately 10-12 year intervals.

Present small stands of mature aspen will be underplanted with white pine or white spruce followed by non-commercial release. Aspen regeneration will not be encouraged in close proximity of the trout stream. Aspen regeneration would create ideal habitat for beaver, and would be at cross purposes to the management objective of keeping beaver populations at a minimum on the stream.

All areas proposed for development will be examined for the presence of endangered and threatened wild animals and wild plants. If listed species are found, development will be suspended until the District Endangered and Nongame Species Coordinator is consulted, the site evaluated, and appropriate protective measures taken.

A complete biological inventory of the property will be conducted as funds permit. Additional property objectives may be developed following completion of such an inventory.

SECTION II - SUPPORT DATA

BACKGROUND INFORMATION

The Engle Creek Springs Fishery Area is located in central Barron County, in primarily an agricultural area. The area surrounding Engle Creek was originally recognized as a valuable resource worthy of acquisition mainly because of six spring ponds associated with the stream, and Engle Creek itself is recognized as a high quality trout stream. The surrounding lands were considered to be an excellent strip of permanent wildlife habitat located in an intensively farmed region.

The Engle Creek Fishery Area was activated in 1969 and initial acquisitions took place in that same year when 67.88 acres were purchased. Additional acquisition took place through 1972, and, at present, 184.17 acres of land are state-owned, with 4.1 private acres remaining within the bounary.

The major management activities to date on the Engle Creek Springs Fishery Area have focused on spring pond dredging and those related to access. In 1973, 3 spring ponds totaling 1.19 acres in size were dredged from an average depth of less than one foot to an average depth of about 6 feet. A total of 12,028 cubic yards of material was removed at a cost of $13,760. The complete cost, including construction of parking lots, fencing, access road, spoil area, and erosion control amounted to $20,463.

A fish barrier and berm were installed at the outlet of 2 of the dredged spring ponds in January of 1981. The fish barrier prevents northern pike from entering the spring ponds to prey on trout. Cost of the barrier was $1,617.

Two of the dredged ponds have proven to be very popular with anglers, with heavy fishing pressure experienced early in the season and moderate pressure thereafter. The third pond, located in Section 29, is less accessible, less well known, and receives less fishing pressure.

Annual stocking of brook trout in the ponds has been necessary to maintain the trout population due to lack of natural reproduction. Periodic beaver control and removal of dams has been necessary.

The fishery area receives considerable use by hunters and trappers for an area of its size. Hunting pressure is directed mainly towards white-tailed deer and ruffed grouse.

The fishery area has considerable aesthetic value and is a strip of wild land in a mostly agricultural area. As a result, there are other recreational and educational activities such as nature hiking and berry picking.

RESOURCE CAPABILITIES AND INVENTORY

Soils, Geology and Hydrology

Bedrock geology of the Engle Creek Springs Fishery Area is uniform consisting of undifferentiated Cambrian sandstone. Predominant formations are St. Lawrence and Franconian underlain by igneous rock of the Precambrian age.

Glaciation has largely determined the topography and soils of Barron County. Glacial drift forms a continuous mantle over the sandstone bedrock in the area. The thinnest glacial deposits cover the uplands and hillsides. Thicker deposits are found on the valley floors. The drift in the fishery area is composed of clay, silt, sand, gravel and boulders. Local differences between the soils of the area, however, do not appear dependent on the age differences of the glacial deposits.

Soil types are influenced by the local variation of loess, thickness and kind of glacial drift. Alluvial soils are predominantly silt loams with extensive shallow peats and mucks. Soils on the bordering outwash plain are well drained Antigo silt loam and Onamia loam. These soils are subject to frequent flooding and are poorly drained. The erosion hazard is severe on the slopes bordering the drainage way, and the forest and grass cover should be maintained.

The hillsides are primarily sandy loams, have rapid permeability and are very droughty. Slopes range from strongly sloping to steep and the suggested land use is forestry. The uplands are mainly silt loams and agriculturally productive. The suggested use is a five-year rotation of corn, oats, and three years of hay.

The area receives an average 32 inches of precipitation per year. The heaviest precipitation events occur in the early summer, but the peak runoff dates are usually produced during the snow melt period of March and April. Of the total annual precipitation, approximately 21 inches is lost through evapo-transpiration. Runoff and infiltration constitute the majority of the remaining 11 or so inches. Groundwater recharge varies throughout the Engle Creek basin. An estimated three to four inches annually percolates into the groundwater table.

Runoff, groundwater flow and direct channel precipitation contribute to the flow during the spring and fall when the soils are at, or near, saturation. Even small precipitation events are able to produce runoff. Surface runoff can occur in the summer months, but the precipitation event must be heavy or result from moderate storms in succession. Increased flow is also produced by summer storms of high intensity and brief duration in which no runoff occurs. The large percentage of the summer flow is, however, derived from the groundwater reservoir.

Fish and Wildlife

Fish - The species composition of waters in the fishery area is characteristic of a coldwater fishery, and both the spring ponds and stream are managed for brook trout. A few brown trout, the mottled sculpin and brook stickle backs represent the remaining coldwater species. Natural reproduction is adequate enough to so that native brook trout are abundant in the stream, with a recent (1980) survey showing an estimated 1,066 trout per acre. In contrast, no known natural reproduction of trout exists in the spring ponds, and until a fish barrier was constructed recently, periodic movements of northern pike into the ponds from the Yellow River destroyed many trout.

Eight other fish inhabit the fishery area including such panfishes as the black crappie, brown and black bullhead. Minnow species found include the white sucker, creek chub, mudminnow and Johnny darter, and the brook lamprey is also present.

Wildlife - A variety of birds and mammals inhabit the fishery area both seasonally and permanently. Approximately 90 bird species and 24 mammal species are believed to inhabit the area. Primary bird species which have management potential are upland game birds such as the ring-necked pheasant and ruffed grouse, and migratory species such as woodcock, wood ducks, mallards and blue-winged teal. Game species, including white-tailed deer, squirrels and cottontails are common. Furbearers such as muskrat, beaver and mink are common and provide trapping opportunities.

Vegetative Cover

Over 50 percent of the fishery area is composed of open and shrub marsh. Forested areas are relatively small, and aside from a 7-acre conifer plantation established in 1980, forested areas are located on moderate to steep slopes.

Forest reconnaissance was completed in the fall of 1980. Vegetative cover types are presented in Table 1, while general cover types are shown on Figure 4.

TABLE 1- Vegetation Types and Their Acreage on the Engle Creek Springs Fishery Area, Barron County

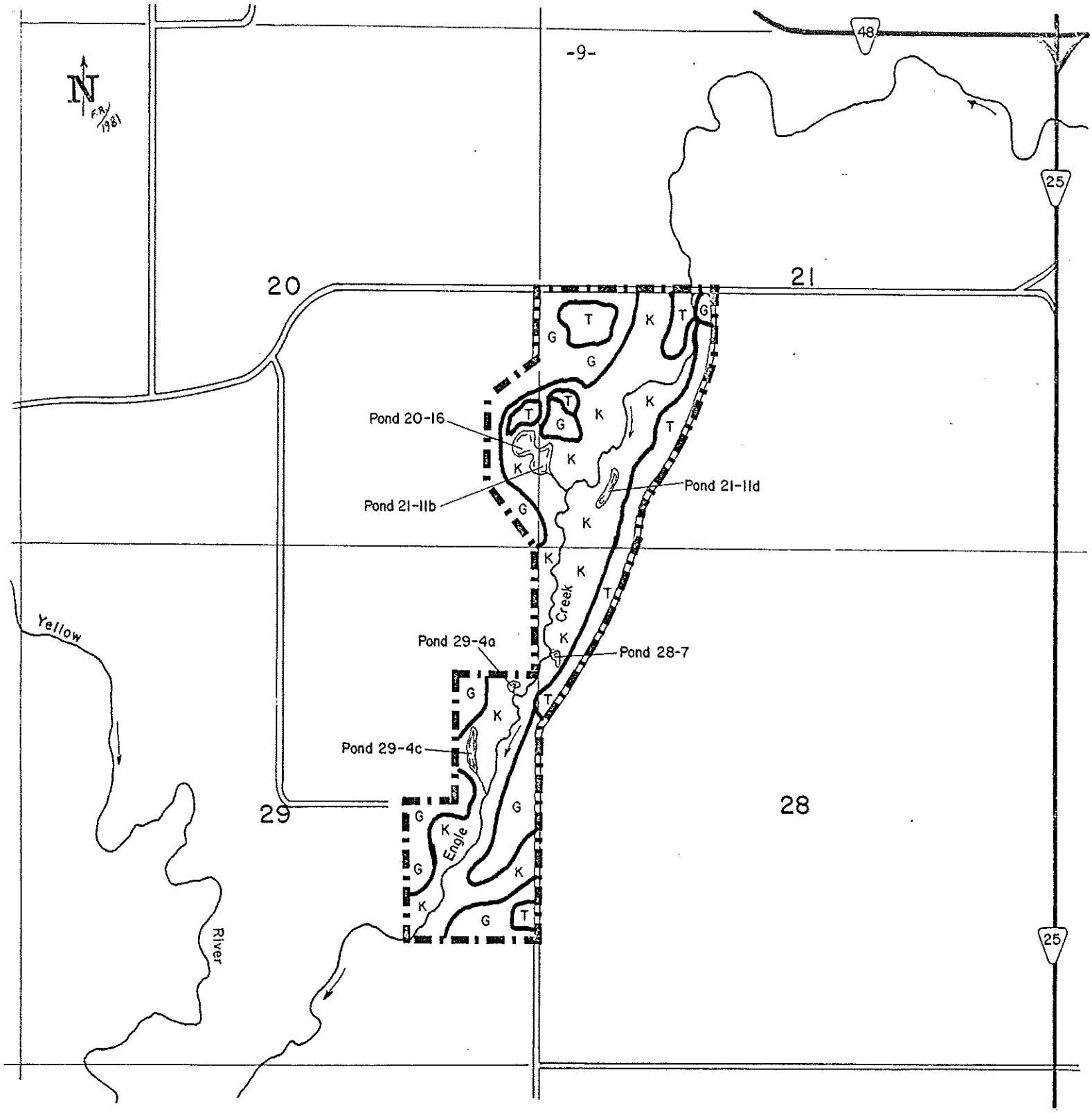
Vegetation Type	Acreage
Lowland brush, marsh	96.5
Upland grasses, herbaceous brush species	59.5
Swamp hardwoods	4.5
Aspen	12.3
Pine (natural stands and plantation)	10.3
Total	183.1
Water (acres)	5.17
GRAND TOTAL	188.27

Endangered and Threatened Species

No endangered or threatened species of fish, amphibians, molluscs, mammals, birds, reptiles or wild plants are known to be present in the area.

Surface Water Resources

Engle Creek is a small (4.0 cfs), slightly alkaline (pH 7.2), medium hard (67 ppm MPA), coldwater stream located in central Barron County. It flows in a southerly direction and joins the Yellow River, a major trout stream. The stream is a tributary of the Mississippi River, arriving there by way of the Red Cedar and St. Croix Rivers. Engle Creek has intermittent flow east of Highway "25", and picks up enough spring flow to support trout year around, beginning in the NE 1/4 NW 1/4 of Section 21, T35N, R12W.



(T. 35N. R.12W. Barron & Shell Lake Quadrangle Maps)

ENGLE CREEK SPRINGS FISHERY AREA

Scale 1" : 1320'

Figure 4. General Cover Map.

LEGEND

Property Boundary - - - - - - - -

Timber - - - - - - - - - - - - - - - - - T

Grass and Upland Brush - - - - - - - - - G

Marsh and Lowland Brush - - - - - - - - K

Class I Trout Water - - - - Entire stream

About 1.8 miles of stream (Table 2a) are located within the boundary of the fishery area. Water quality throughout the fishery area is good, with many contributing springs. The entire stream in the fishery area is Class I trout water.

Engle Creek has an average width of 8 feet. About 40 percent of the stream flows through open marsh, with the remaining 60 percent flowing through shrub marsh. The stream is subject to considerable flooding during some spring runoff periods. Bottom types are primarily sand, with considerable silt present in slow water areas. Stream gradient is low averaging 4 feet per mile. Gravel riffles are small and scattered, primarily in the portion of stream around the dredged spring ponds.

Six spring ponds (Table 2b) are associated with the stream in the fishery area. Three of these ponds, totaling 1.09 acres in size, were dredged in 1973 to an average depth of approximately 6 feet and a maximum depth of 9 feet. Brook trout are common in these ponds. At least several inches up to a foot of silt continue to cover hard bottom substrate. Food resources for trout, especially Gammerus sp., are abundant, and trout growth is excellent.

Three spring ponds have not been dredged. These ponds total about one acre, are badly silted and their primary fishery value at the present time is providing substantial spring flow to Engle Creek.

TABLE 2a - Stream Miles Within the Engle Creek Springs Fishery Area

Stream	County	Length in Miles Class I
Engle Creek	Barron	1.8

TABLE 2b - Spring Ponds Within the Engle Creek Springs Fishery Area

Name	County	Surface Acres	Maximum Depth (Feet)	Dredged
Pond 20-16	Barron	0.46	9.0	Yes
Pond 21-11b	Barron	0.45	8.5	Yes
Pond 21-11d	Barron	0.50	Unknown	No
Pond 28-7	Barron	0.20	Unknown	No
Pond 29-4a	Barron	0.30	Unknown	No
Pond 29-4c	Barron	0.28	9.0	Yes
	Total	2.19		

Historical and Archaeological Features

No systematic archaeological, architectural or historical surveys have been conducted for this area; thus, no such sites are known. The State Historical Society will be contacted for advice prior to any movement of soils or structures on the fishery area.

Land Use Potential

The size and location of the Engle Creek Springs Fishery Area limit the land use potential for the property. The area has potential for only one designation, as a Fish and Wildlife Management Area (RD_2) (Figure 2). The area does not meet the criteria for other land uses as defined in the Master Planning Handbook.

MANAGEMENT PROBLEMS

Access and Habitat Problems

Engle Creek can support only limited fishing opportunities due to its small size. Much of the stream is difficult to reach across the marsh which surrounds it. Fishability is fair to poor. Habitat conditions for trout are fairly good in open marsh areas, but have deteriorated in areas of heavy tag alder cover which will continue to enroach on open areas if not controlled.

Destruction by Beaver

Beaver have caused habitat destruction in past years and continued problems are anticipated.

Siltation

Engle Creek lies in an agricultural watershed, and poor farming practices upstream from the fishery area have caused significant amounts of nutrients, organic matter and sediment to be deposited in the stream. Because Engle Creek has only small and scattered trout spawning areas, siltation on these gravel areas could have a significant adverse effect on trout natural reproduction. Controlling sedimentation from upstream sources is of high priority.

The 3 undredged spring ponds are badly silted. They are subject to frequent flooding from the stream, which could result in rapid re-siltation of the pond if they were dredged. Distance from suitable spoil areas is an additional problem.

Natural Reproduction

Natural reproduction of brook trout is lacking in the dredged spring ponds, making them dependent on stocking. Predation of trout by northern pike has been significant in the ponds in the past, and has caused significant trout mortality. The recently erected fish barrier should solve this problem. Heavy fishing pressure on these small ponds early in the season may also have a detrimental effect on the fishery. Additional regulations, such as a lower bag limit or closed seasons on alternate years, may have to be explored.

Size of the Fishery Area

The fishery area is too small to develop large scale management programs to enhance wildlife habitat. In addition, individual forest stands are too small to be managed individually for commercial harvesting.

Private Lands

The 4.1 acres of private land remaining within the boundary basically separate the public land into two parcels.

Illegal Activities

Illegal snowmobiles and littering are common problems.

RECREATION NEEDS AND JUSTIFICATION

The 1980 census listed the population of Barron County at 38,730 people. The cities and environs of Rice Lake, Barron and Cumberland, which are all located within seven miles of the Engle Creek Springs Fishery Area, have a combined present population well in excess of 17,000 people. The Rice Lake area is one of the fastest growing in the State. However, these local figures do not indicate the pressure placed on the local resources from the surrounding areas of Eau Claire, Minneapolis and St. Paul which have a combined population total over 1.75 million people. Many of the out-of-county residents own or utilize recreational facilities within Barron County. It is the pressures from residents of both Barron County and other areas that dictate the intensive management of existing public facilities and dictate the need for the acquisition of additional public land. Without such management, the increased use would cause rapid deterioration of present resources. By 1990, some recreational opportunities may be limited. A more specific outline is present below:

Fishing - The spring ponds located in the fishery area are valuable resources. The dredged ponds are the only spring ponds in Barron County which are in public ownership and contain a significant trout fishery. The portion of Engle Creek in the fishery area (1.8 miles) comprises 6.2 percent of the Class I trout water in Barron County, and approximately 25 percent of the Class I trout water in state ownership in Barron County. High quality brook trout streams such as Engle Creek are relatively uncommon in agricultural areas, making them especially valuable.

Fishing pressure, already substantial on the fishery area, will undoubtably increase in the future. Analysis of resident and nonresident fishing licenses sold (combined) in Barron County shows an increase from 17,853 in 1970 to 28,033 in 1981.

Another indication of the use of Barron County waters for fishing is number of fishing participations and projected participations for an average weekend day. Information from the West Central Regional Planning Commission projects fishing participations at 12,148 in 1977 to 12,487 in 1980 and 13,868 by 1990.

Hunting - The utilization of our wildlife resources by hunters is constantly increasing. A comparison of hunting licenses (of all types) sold in Barron County shows an increase from 10,800 in 1970 to 16,243 in 1981. This rate is expected to continue increasing in the future. There has also been a dramatic increase in the posting of private lands. With an increase in number of hunters and a decrease in the amount of available hunting space on private property, public hunting and fishing land becomes premium property.

Analysis of Alternatives

Do Nothing

If all management practices were suspended, trout habitat on the stream would deteriorate due to beaver activity and further encroachment of tag alders on streambanks.

The 3 undredged spring ponds would continue to remain of limited fishery value. Termination of stocking would substantially lower the trout population in the ponds.

Wildlife habitat would also decline in quality with time. Openings would disappear due to natural succession. Forest stand, particularly aspen, would mature and deteriorate, decreasing wildlife habitat for many species. Valuable timber would not be harvested, wasting a natural resource.

The private 4.1-acre parcel would continue to split the public land into 2 tracts.

Reduce the Size of the Fishery Area

Most of the land within the property boundary has already been acquired (97.9 percent). Attainment of goals and objectives would not be possible if the area was reduced.

Enlarge the Size of the Fishery Area

The 6 spring ponds and the majority of Engle Creek are within the present property boundary. Enlargement of the property boundary is unnecessary to meet the goals and objectives of the property.

Limited Habitat Management

A "status quo" of the fish and wildlife resources might be maintained with limited habitat management. Habitat conditions could be maintained in a reasonable facsimile of its present state by maintaining present wildlife openings and present herbaceous streambank areas, and with beaver removal on the stream. However, because of ever increasing public pressure on the fish and wildlife resources, maintaining the status quo will not meet the future needs of the area.

Intensive Habitat Management (Recommended Alternativive)

There will be increasing demand for hunting and fishing opportunities in the future. In order to accommodate these demands, the carrying capacity for fish and wildlife on the Engle Creek Fishery Area must be increased. This can only be accomplished by intensive habitat management. Therefore, it is the recommended alternative for the Engle Creek Springs Fishery Area. Specific actions are detailed in the "Recommended Management and Development Program" portion of the Master Plan.

1493N

Appendix - Comments regarding the master plan from outside reviewing agencies.

Comments were received from a number of outside reviewing agencies during the 45-day review period. Their comments, and DNR responses, where necessary, are included in this appendix.

Mr. Loren Miller, Wisconsin Conservation Congress, Rt. 1, Cumberland, WI.

I feel this master plan is excellent. I live 10 miles from the area, have hunted and fished there, feel it has a great potential if managed according to this plan. The creek was badly damaged by a large beaver dam nearly 30 years ago, making good fishing for a short while above the dam, and than stagnation, siltation, and the end of the good fishing followed.

I think the DNR personnel should be commended for a lot of work and study going into this plan.

Mr. Jack Nedland, Forest and Recreation Administrator, Barron County, 311 E. LaSalle Avenue, Barron, WI.

Will the forestry component of this area produce enough fiber to make all the paper this process uses?

DNR response: Yes

My only question is, does a project of this size warrant the man hours which have gone into this document? It seems like paper overkill to me! The material and thoughts set forth in this document appear well thought out and presented.

DNR response: This would best be answered by those who formulated the master planning process and guidelines. However, planning future management of our properties is necessary to provide the best possible management.

Mr. Kevin W. Jones, Director, West Central Wisconsin Regional Planning Commission, 124½ Graham Avenue, Eau Claire, WI 54701.

I am writing in response to your request for comments on the Engle Creek Springs Fishery Area Master Plan. I asked Associate Planner David Lennander of our staff to review the Master Plan and to provide any comments that he had on the comment sheet supplied. Mr. Lennander has completed his review and his comments are enclosed. As you will note, his comments are rather minor and his overall view of the Master Plan is "excellent."

We appreciate the opportunity to review the plan and to provide comments.

P. 1 angler - spelling
P. 7 Para. 4, What basin?
P. 8 The Chippewa R. is not a tributary of the St. Croix R.

DNR response: The Engle Creek Basin.
The St. Croix River should be deleted from the sentence.

Cynthia A. Morehouse, Director, Bureau of Environmental Analysis and Review, Department of Transportation, Madison.

We have reviewed the Concept Element of the Engle Creek Springs Fishing Area Master Plan and determined that no direct significant effects on transportation interests would be generated by the plan's proposals. Indirect effects on transportation facilities however, could result from the course(s) of action taken to control beaver populations.

It is our opinion that actions to improve fish habitat at the expense of beaver habitat may add to already serious transportation problems caused by the growing beaver population. In addition to beaver population growth, and perhaps contributory to it, is the decrease in trapping following the recent drop in market value of beaver pelts. Beaver displaced or discouraged from more natural surroundings may adversely affect a roadway's drainage thereby increasing our maintenance costs. (This problem has been experienced by all levels of highway jurisdiction.) While we do not advocate draconian measures to control the beaver population, we do recommend that in subsequent documentation you: (1) Include more information on the growing beaver population and (2) Anticipate the secondary effects of actions taken for fishery area management upon transportation facilities when animals such as the beaver are displaced or discouraged from their natural habitat.

DNR response: We plan to decrease the beaver population on the Engle Creek Fishery Area by: (1) habitat manipulation, i.e., decreasing the aspen component in the project (2) more lenient trapping regulations for beaver. I doubt if such measures would cause significant increases of beaver in surrounding areas.

Stanley A. Nichol, Wisconsin Geological and Natural History Survey, 1815 University Avenue, Madison, WI.

Pg. 2, para. 7 - Have studies been proposed or completed which would determine how long lasting the "hills" of pea gravel would function, given the sedimentation rate?

DNR response: No, but sedimentation appears to have been negligible since the spring pond was dredged in 1973 (visual observation). The direct drainage area to the pond is very small, reducing the sediment load.

Pg. 7, para. 2 - Should read: Soils types are influenced by the local variation of loess thickness and kind of glacial drift. Alluvial soils are predominantly silt loams with extensive shallow peats and mucks. These soils are subject to frequent flooding and are poorly drained. Soils on the bordering outwash plain are well drained Antigo silt loam and Onamia loam. The erosion hazard is severe on the slopes bordering the drainage way and the forest

and grass cover should be maintained.

DNR response: Agreed. Changes made.

Note: The master plan was reviewed by both the Scientific Areas Preservation Council and Wild Resources Advisory Council. Both councils indicated that they had significant interest in the fishery area.

oh really?