

Form 1100-1
Rev. 11-82

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. 63-5

SUBJECT: MASTER PLANNING - Approval of the master plan for Little Wolf River System Fishery Area, Portage and Waupaca Counties, with an acreage goal of 2,650.50 acres.

FOR October **BOARD MEETING**
(month)

TO BE PRESENTED BY: Ron Poff

SUMMARY:

The final draft of the master plan for the proposed Little Wolf River System Fishery Area, Portage and Waupaca Counties, has been prepared and is presented for review and approval. It proposes that the currently approved Little Wolf River Fishery Area in Portage and Waupaca Counties be combined with remnants acquired on prime tributary streams, Flume, Bradley, Jackson and Spaulding Creeks. A new boundary is proposed, and 3 public use natural areas are recommended.

The approved acreage goal for this fishery area is 338.87 acres, however, this goal has been exceeded by 113.13 acres as 452.00 acres are in state control. The remnant acreage under state control includes 789.95 acres in Portage County and 531.55 acres in Waupaca County. Thus, a total of 1,773.50 acres are under state control. An acreage goal of 2,650.50 acres is recommended for the Little Wolf River System Fishery Area. The additional acres would be provided by transferring to the system 577.0, 200.0 and 100.0 acres from the Waupaca, Juneau and Outagamie Counties remnant programs, respectively.

No controversy is anticipated.

RECOMMENDATION:

That the Natural Resources Board approve the master plan.

RECEIVED
OCT 7 1985
BUREAU OF
NATURAL RESOURCES

LIST OF ATTACHED REFERENCE MATERIAL:

- No Fiscal Estimate Required
- No Environmental Assessment or Impact Statement Required
- No Background Memo

- Yes Attached
- Yes Attached
- Yes Attached

cc: Judy Scullion - AD/5
Charles Higgs - LMD
Dale Urso - NCD
Carl Evert - OL/4
Ron Poff - FM/4
Jim Addis - FM/4
Vern Hacker, Oshkosh

APPROVED:

James J. Addis
Bureau Director

James R. Hunter
Administrator

W. J. Jeschke
Secretary

9/4/85
Date

9-10
Date

10-2-85
Date

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: August 27, 1985 File Ref: 2100

To: C. D. Besadny

From: James T. Addis 

Subject: Proposed Little Wolf River System Fishery Area, Portage and Waupaca Counties, Master Plan

Attached are the conceptual master plan and the environmental assessment of the proposed Little Wolf River System, Portage and Waupaca Counties.

The master plan has been through the 45-day review period and was sent to a varied group of organizations in, and outside of the Department. Comments from persons and organizations outside of the Department, and pertinent Department responses where necessary, are attached in an appendix to the master plan.

An informational meeting was held to discuss the master plan on November 11, 1982 in Waupaca. Announcements of the meeting were sent to, and carried in newspapers in Adams, Wausau, Stevens Point, Appleton, Waupaca, Iola, Wautoma and Wisconsin Rapids, and to town chairmen of affected townships. A total of 25 members of the public and 6 DNR personnel attended the meeting.

No specific suggestions for change of the master plan were made by the public at the meeting. There were the usual questions and comments relating to the possibility of DNR condemnation, banning canoes, the source of money to purchase lands, and the effects of irrigation on the stream. All questions were satisfactorily handled in what was considered a good meeting. No additional controversy is expected.

Currently, 435.52 fee title, and 16.38 perpetual easement acres totalling 452.0 acres are owned on the previously approved Little Wolf River Fishery Area. It has an acreage goal of 338.87 acres; thus, it is 113.13 acres over the goal.

At the same time, 297.15 fee title and 277.43 perpetual easement acres were acquired on Flume Creek, 418.50 fee title and 9.80 easement acres on Bradley, 138.0 fee and 29.98 easement acres on Jackson and 35.9 fee and 114.7 easement acres on Spaulding Creek, all as remnant purchases. They, combined, total 1,321.50 acres.

Together, the purchases on the approved Little Wolf Fishery Area and on the remnants total 1,773.50 acres.

The Department, in this master plan, proposes to combine the currently approved Little Wolf Fishery Area with the remnant acquisitions on the tributaries, in a revised common boundary to create the Little Wolf River System Fishery Area. It proposes to increase the acreage goal beyond the currently approved 338.87 acres, by the 1,321.50 acquired remnant acres and 577, 200 and 100 additional acres transferred from the Waupaca, Juneau and Outagamie remnant acreage programs, respectively.

If approved, the new acreage goal would be 2,650.50 acres, leaving 877.0 acres to be acquired.

TO: C. D. Besadny - August 27, 1985

2.

Three public use natural areas are recommended, with one each on the Little Wolf, Bradley and Flume, all in the Portage County segments of streams.

Fish management programs proposed include a number of trout habitat improvement actions funded by trout stamp monies, including 1.5 miles of brushing and instream structures on the North Branch, Little Wolf River, 2.5 miles of habitat work on Flume Creek, including brushing and installation of 40-50 bank structures and brushing and half-log structures on 0.5 mile of Jackson Creek. Beavers will be controlled where necessary.

Wildlife management will be directed toward deer, squirrels, raccoons, woodcock and ruffed grouse, and will include habitat improvement including planting, thinning and manipulating of lowland brush. The creation of "edge" is expected to benefit a greater diversity of species.

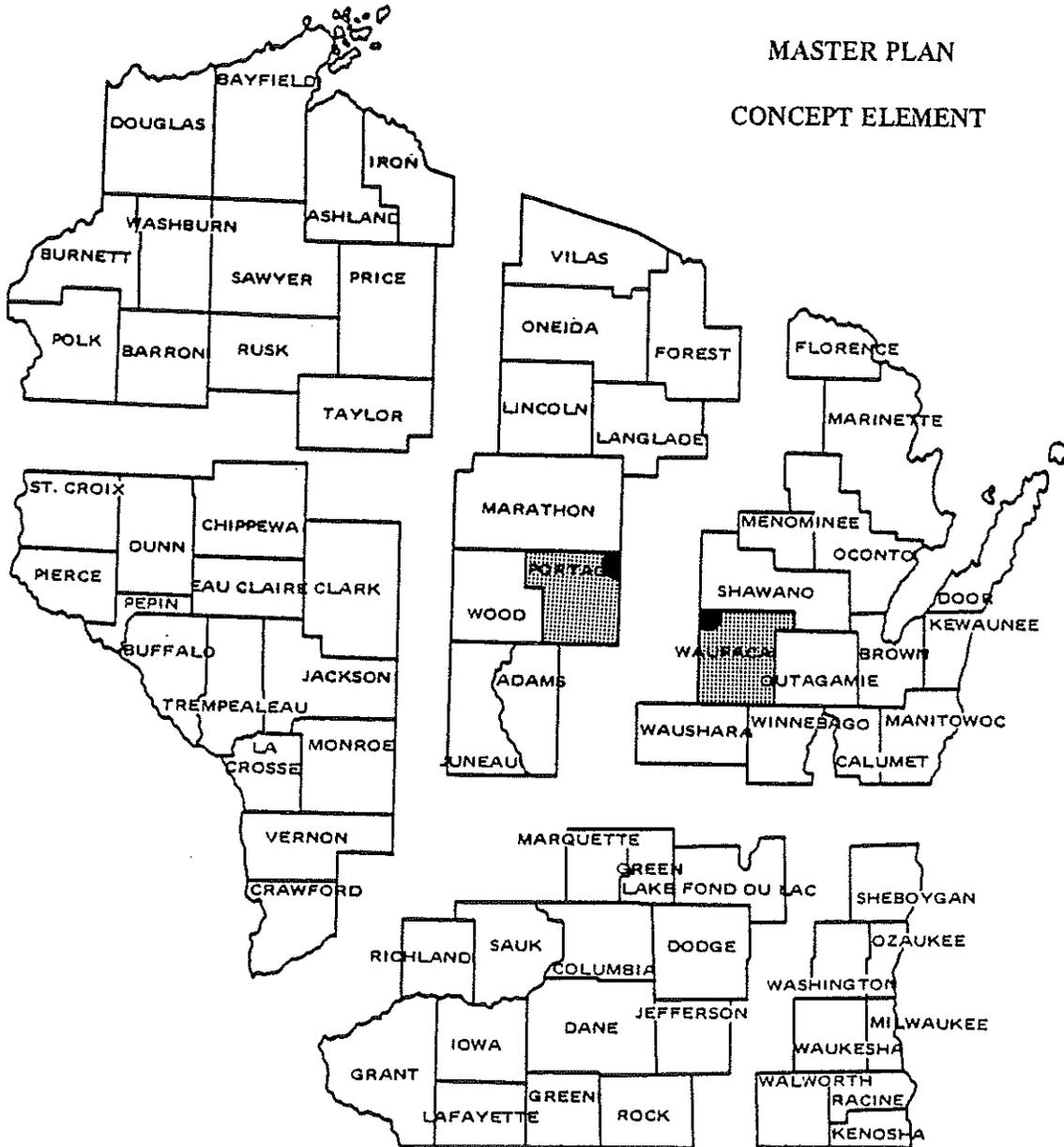
Forest management will assist to manage cover types with the best silvicultural and aesthetic techniques, while promoting wildlife. Timber stands will be managed to increase their health and growth rate, and seedlings will be planted in critical areas to enhance water quality and provide additional and varied wildlife habitat.

Your approval is requested to submit the master plan to the Natural Resources Board for their consideration.

VH:mg

PROPOSED LITTLE WOLF RIVER SYSTEM FISHERY AREA
 PORTAGE AND WAUPACA COUNTIES

MASTER PLAN
 CONCEPT ELEMENT



Property Task Force

Leader – Jack Zimmermann, Fish Manager
 Joseph Haug, Wildlife Manager
 Paul Lochner, Forester
 Mike Primising, Fish Manager
 Hugh Hayes, Forester

Approved by Natural Resources Board

 Date

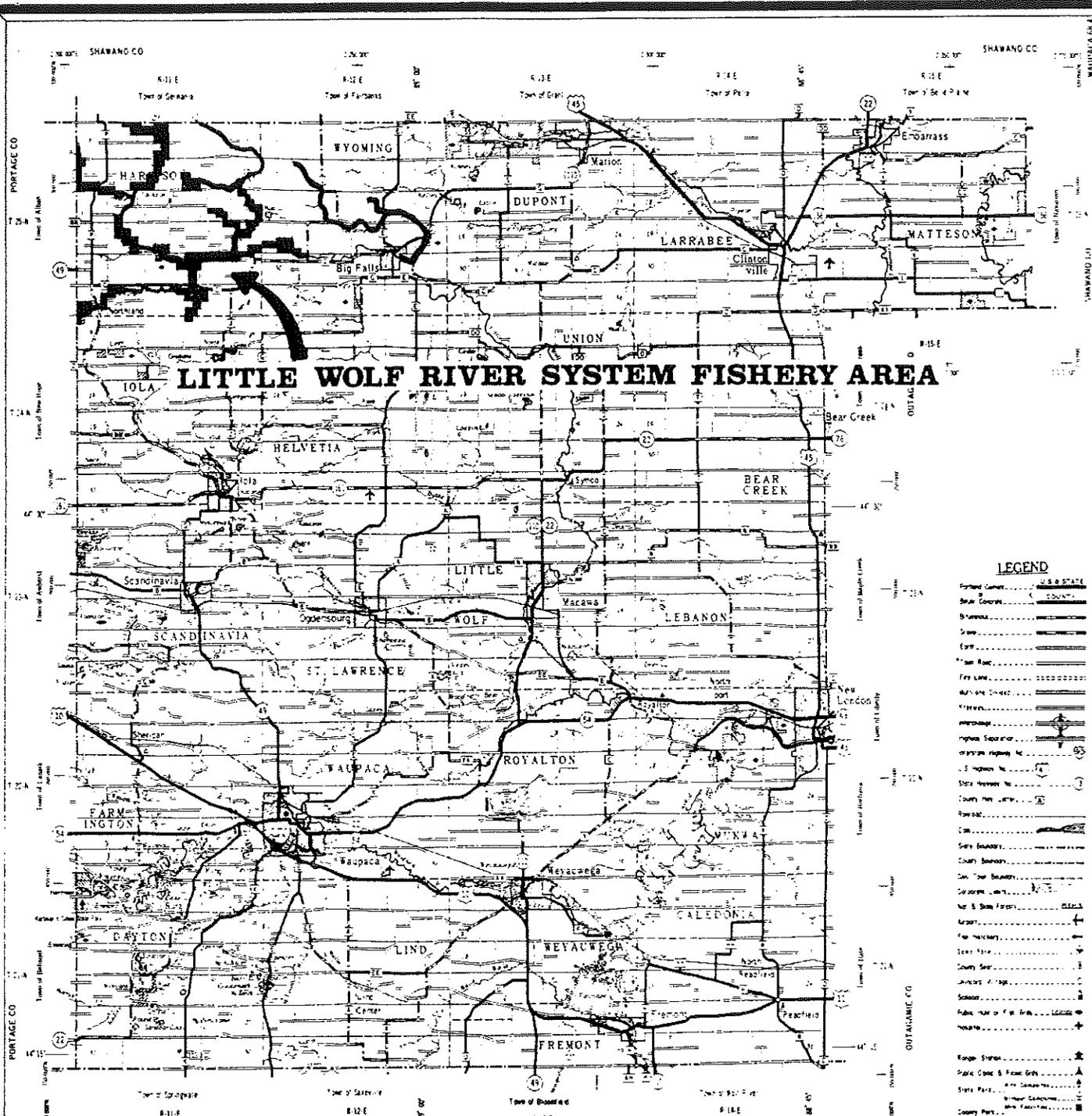


Figure 1b. Location—Little Wolf River System Fishery Area, Portage and Waupaca Counties.

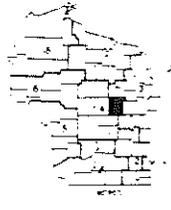
CIVIL TOWNS

HARBOR	WYOMING	DUPONT	LARRABEE	MATTESON
IOLA	HELVETIA	UNION	BEAR CREEK	
SCANDINAVIA	ST. LAWRENCE	ROYALTON	NEVAUECH	CALEDONIA
FARMINGTON	WAUPACA	LIND	NEVAUECH	NEVAUECH
DAYTON	LIND	NEVAUECH	CALEDONIA	FREMONT

County Seat Waupaca
 Precinct Office
 Area 112.4

TOWNSHIP NUMBERS

6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35



WAUPACA CO.
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STATE OFFICE BUILDING
 MADISON, WISCONSIN
 SCALE 1:50,000
 JAN 1976
 WAUPACA 62-4

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SECTION I - ACTIONS

GOALS, OBJECTIVES AND ADDITIONAL BENEFITS

Goals

To manage the Little Wolf River System in Portage and Waupaca Counties, to enhance the habitat for fishing, hunting and other recreational and educational uses while maintaining the aesthetic qualities of the land and water.

Annual Objectives

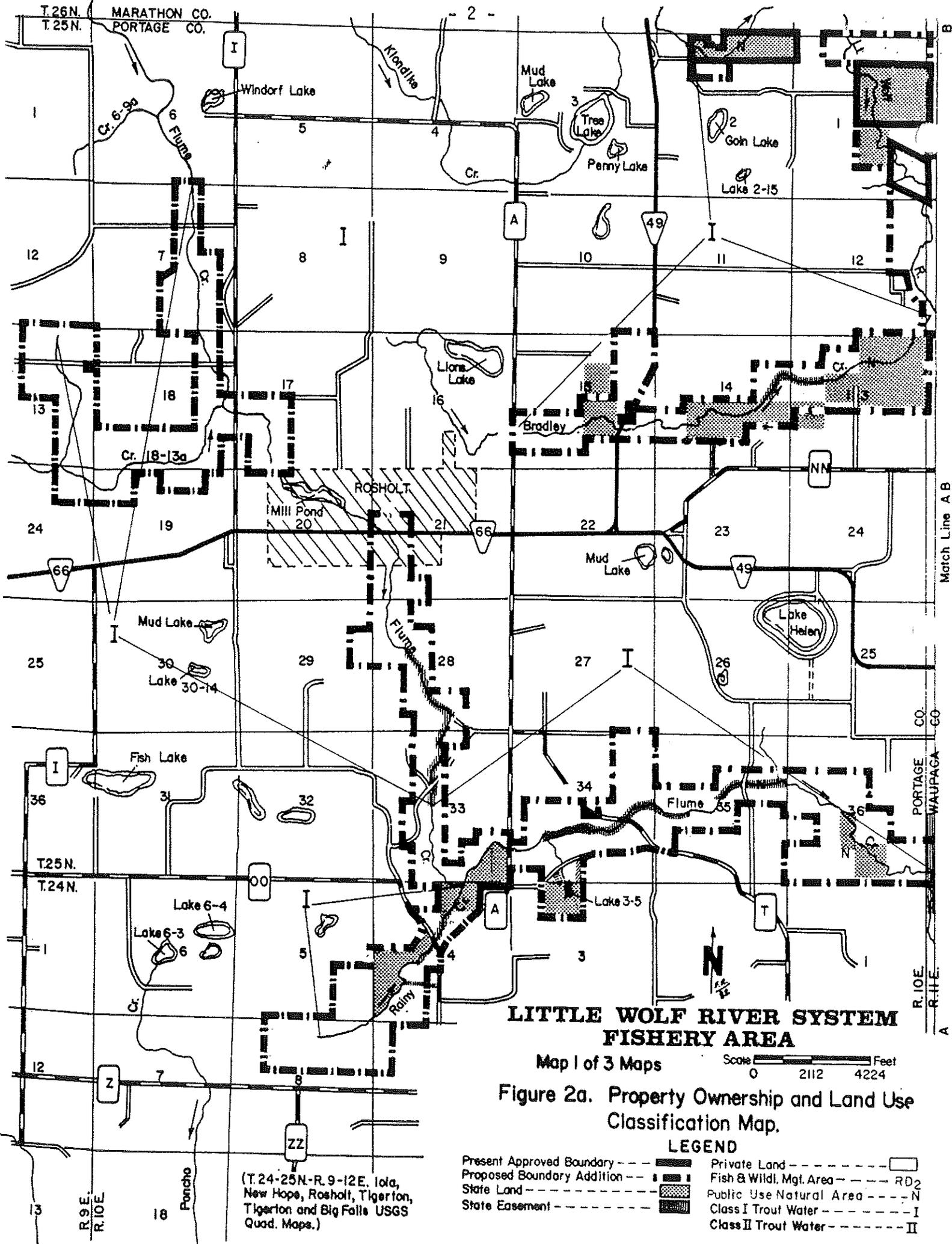
1. Manage and maintain the trout fishery to provide for 8,000 participant-days of fishing for brook and brown trout.
2. Management of the stream and its tributaries to allow a sustained harvest of not less than 15 pounds of trout per acre.
3. Provide opportunities for 18,000 participant-days of hunting for white-tailed deer, gray squirrels, cottontail rabbits, ruffed grouse, woodcock and waterfowl.
4. Provide the opportunity for 3,000 participant-days of trapping for beaver, muskrats, raccoons, mink and otters.
5. Manage forestlands to produce a recurring harvest of 100 cords of roundwood products.

Annual Additional Benefits

1. Manage uplands and timber types to attain and maintain aesthetic values and enhance the watershed and its habitat for game and nongame species.
2. Provide 8,000 participant-days of cross-country skiing, hiking, snowshoeing, photography, bird-watching, berry picking and other educational and recreational uses.
3. Provide habitat benefits to nongame species of fish, wildlife and plants including migratory endangered and/or threatened species.
4. Enhance water quality through streambank protection and erosion control on adjacent lands.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

The North Branch of the Little Wolf River (Figure 1) is a major stream which has a number of prime tributaries: Flume, Bradley, Comet, Jackson and Spaulding Creeks on which a total of 1,321.50 remnant acres are owned by the state (Figures 2a, b, and c).



LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 1 of 3 Maps

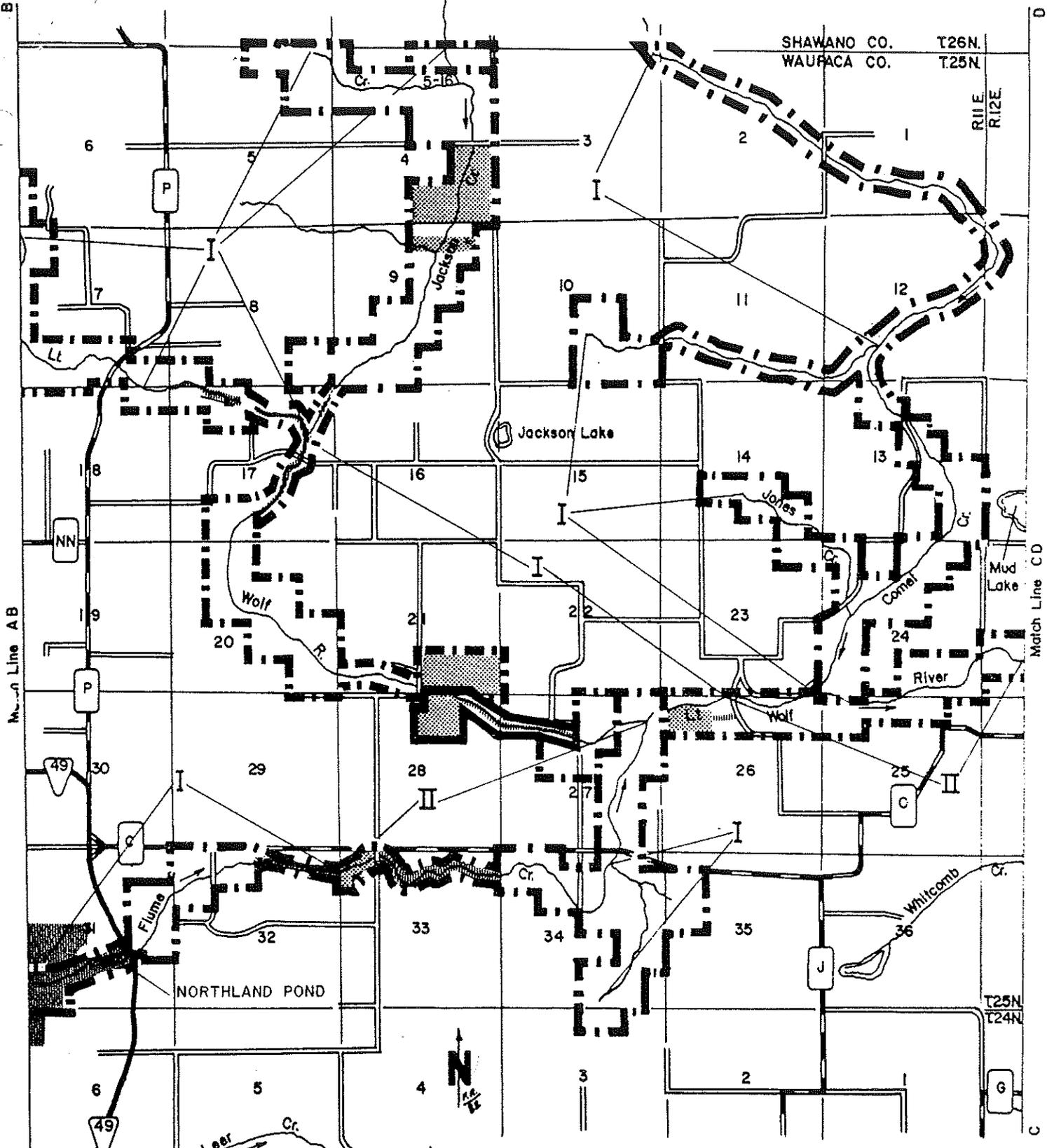
Scale 0 2112 4224 Feet

Figure 2a. Property Ownership and Land Use Classification Map.

LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- State Land - - - - -
- State Easement - - - - -
- Private Land - - - - -
- Fish & Wildl. Mgt. Area - - - - - RD2
- Public Use Natural Area - - - - - N
- Class I Trout Water - - - - - I
- Class II Trout Water - - - - - II

(T. 24-25N-R. 9-12E. 10a, New Hope, Rosholt, Tigerton, Tigerton and Big Falls USGS Quad. Maps.)



LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 2 of 3 Maps

Scale 0 2112 4224 Feet

Figure 2b. Property Ownership and Land Use Classification Map.

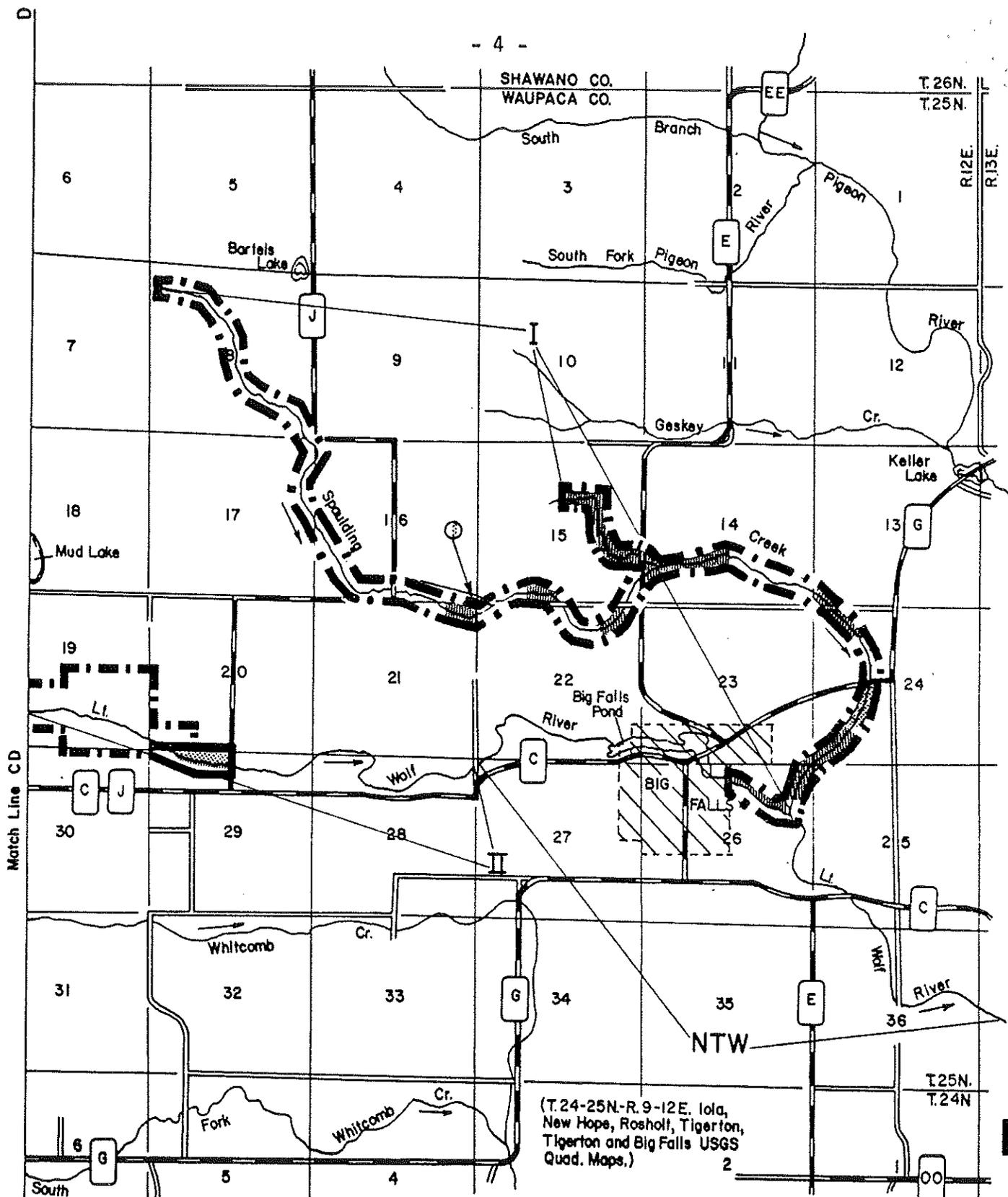
LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - · - · - -
- State Land - [stippled pattern]
- State Easement - [cross-hatched pattern]
- Private Land - [white box]
- Fish & Wildl. Mgt. Area - RD₂ - [dashed box]
- Entire Property - [dotted pattern]
- Class I Trout Water - [diagonal lines]
- Class II Trout Water - [horizontal lines]

(T.24-25N-R.9-12E. 10d, New Hope, Roaholt, Tigerton, Tigerton and Big Falls USGS Quad. Maps.)

A

C



(T.24-25N.-R.9-12E. Iola, New Hope, Rosholt, Tigerton, Tigerton and Big Falls USGS Quad. Maps.)

LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 3 of 3 Maps

Scale 0 2112 4224 Feet

Figure 2c. Property Ownership and Land Use Classification Map.

LEGEND

- | | | | |
|----------------------------|-------|-------------------------------------------|-----------------|
| Present Approved Boundary | ----- | Private Land | ----- |
| Proposed Boundary Addition | ----- | Fish & Wildl. Mgt. Area - RD ₂ | ----- |
| State Land | ----- | ----- | Entire Property |
| State Easement | ----- | Class I Trout Water | ----- I |
| Non-Trout Water | ----- | Class II Trout Water | ----- II |
| | | NTW | |

The Department proposes adding and connecting the remnant areas with a proposed boundary to the previously approved Little Wolf River Fishery Area. If the concept for the area is approved by the Natural Resources Board in the future, it will be called the Little Wolf River System Fishery Area, Portage and Waupaca Counties.

If all actions above are approved, the Natural Resources Board will be required to take the following actions:

1. Reclassify the Little Wolf River Fishery Area and remnant areas of Flume, Jackson, Spaulding, Bradley and Comet Creeks to the Little Wolf River System Fishery Area.
2. Approve the proposed additional boundaries as shown on Figures 2a, b and c.
3. Transfer 789.95 acres from Portage County remnant acres to the Little Wolf River System Fishery area for lands already acquired.
4. Reduce the acreage goal of the Portage County remnant acres by 789.95 acres.
5. Transfer 531.55 acres from the Waupaca County remnant acres to the Little Wolf River System Fishery area for lands already acquired.
6. Reduce the acreage goal of Waupaca County remnant acres by 531.55 acres.
7. Establish the acreage goal of the Little Wolf River System Fishery area at 2,650.50 acres, an increase of 877.0 acres.
8. Transfer 577 acres from Waupaca County remnant acres to the Little Wolf River System area acreage goal.
9. Reduce the Waupaca County remnant acreage goal by 577 acres.
10. Transfer 200 acres from Juneau County remnant acres to the Little Wolf River System Fishery Area acreage goal.
11. Reduce the Juneau County remnant acreage goal by 200 acres.
12. Transfer 100 acres from Outagamie County remnant acres to the Little Wolf System Fishery Area acreage goal.
13. Reduce the Outagamie County remnant acreage goal by 100 acres.

The current state ownership on the proposed Little Wolf River System Fishery Area is:

Stream	Lands State Owned		Total
	In Fee Title	In Easement	
Little Wolf River FA	435.52	16.48	452.00
Flume Creek RA	297.15	277.43	574.58
Bradley Creek RA	418.50	9.80	428.30
Jackson Creek RA	138.00	29.98	167.98
Spaulding Creek RA	35.90	114.74	150.64
Fishery Area Acreage Owned	435.52	16.48	452.00
Remnant Areas Acreage Owned	889.55	431.95	1,321.50
Grand Total	1,325.07	448.43	1,773.50

If the changes recommended in this Master Plan are approved by the Natural Resources Board, the acreage goal for the fishery area will be modified as follows:

Present approved fishery area acreage goal	338.87 acres
Present fishery area acreage owned	452.00 acres
Amount over goal	113.13 acres
Present acreage owned (fishery area and remnants)	1,773.50 acres
Proposed addition to acreage goal	877.0 acres
New acreage goal	2,650.50 acres

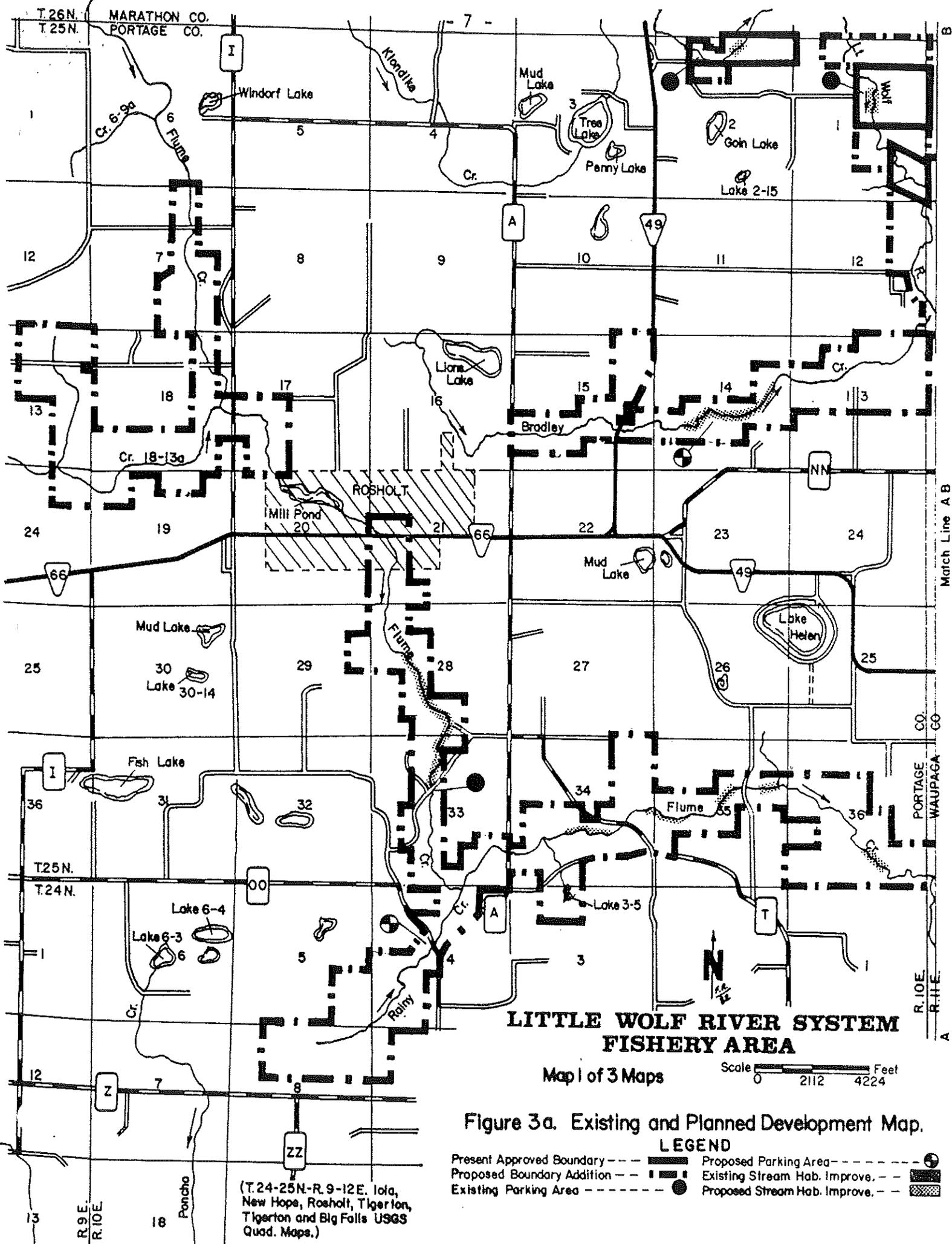
Acquisition is necessary to accomplish the plan's stated goals and objectives providing for enjoyable recreational opportunities for the future.

✕ Acquisition of parcels containing stream frontage and/or springs are of high priority. If there are no opportunities for fee purchase, 4 to 10 rod perpetual easements on each streambank will be considered as alternatives.

Land acquisition in the past has been based on professional real estate appraisals and offers of fair market value to willing sellers. This practice will continue in the future.

Fish management programs for the Little Wolf River System Fishery Area shown on Figures 3a, b and c, will include implementation of trout habitat improvements funded under the Trout Stamp Program. On the North Branch of the Little Wolf River, approximately 1.5 miles of brushing and instream structure work are proposed. Along Flume Creek, 2.5 miles of habitat work will be undertaken.

Streambank brushing will reduce excessive shading and restore meadow-type habitat on selected areas of the stream. Brush bundles placed strategically will help narrow the stream, creating additional depth and cover for trout. The construction of 40 to 50 instream bank structures will provide necessary cover for trout. On Jackson Creek, approximately 0.5 mile of stream will undergo selective brushing and the installation of half logs to provide more cover and protection for trout.



**LITTLE WOLF RIVER SYSTEM
FISHERY AREA**

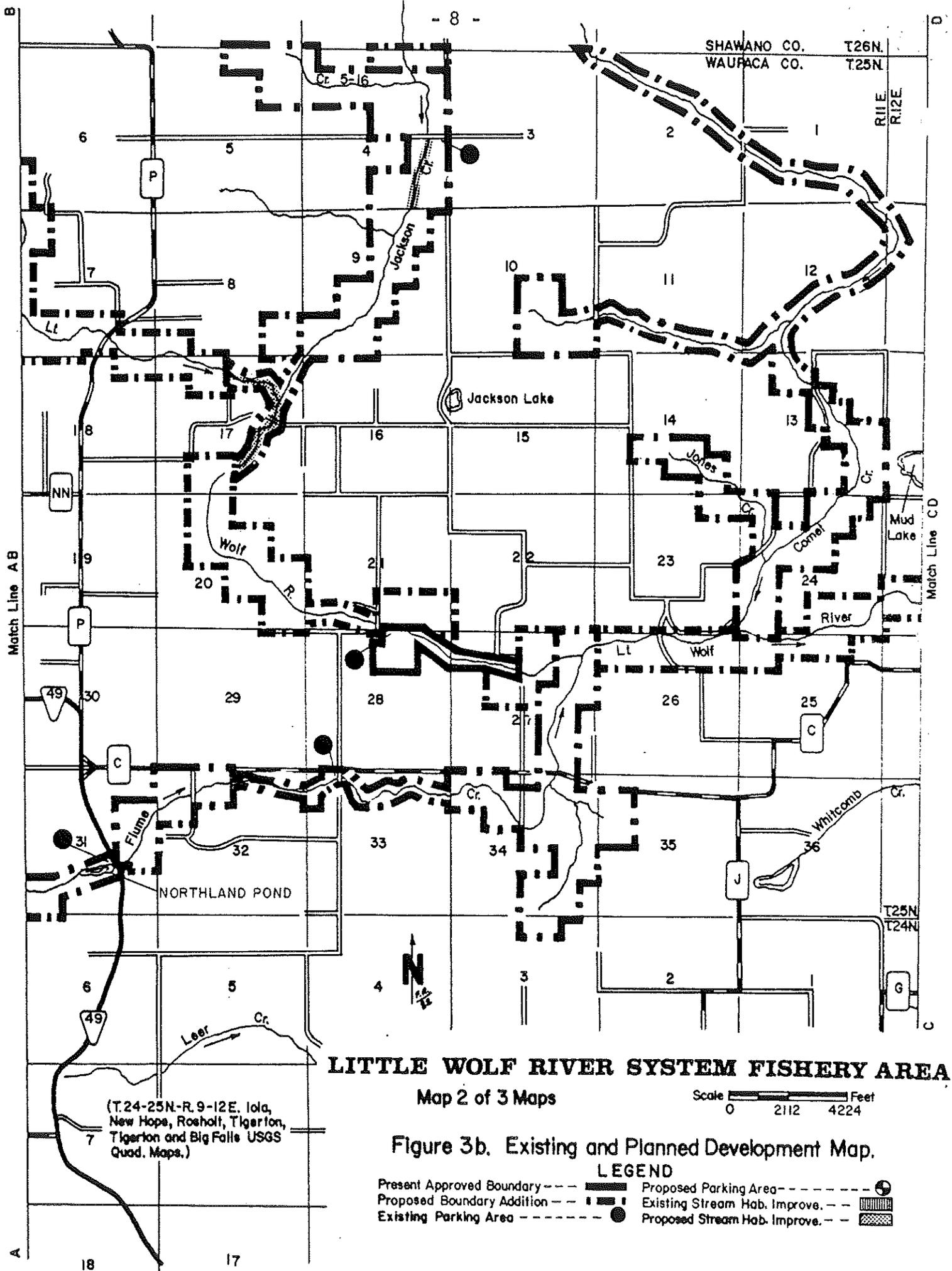
Map 1 of 3 Maps Scale 0 2112 4224 Feet

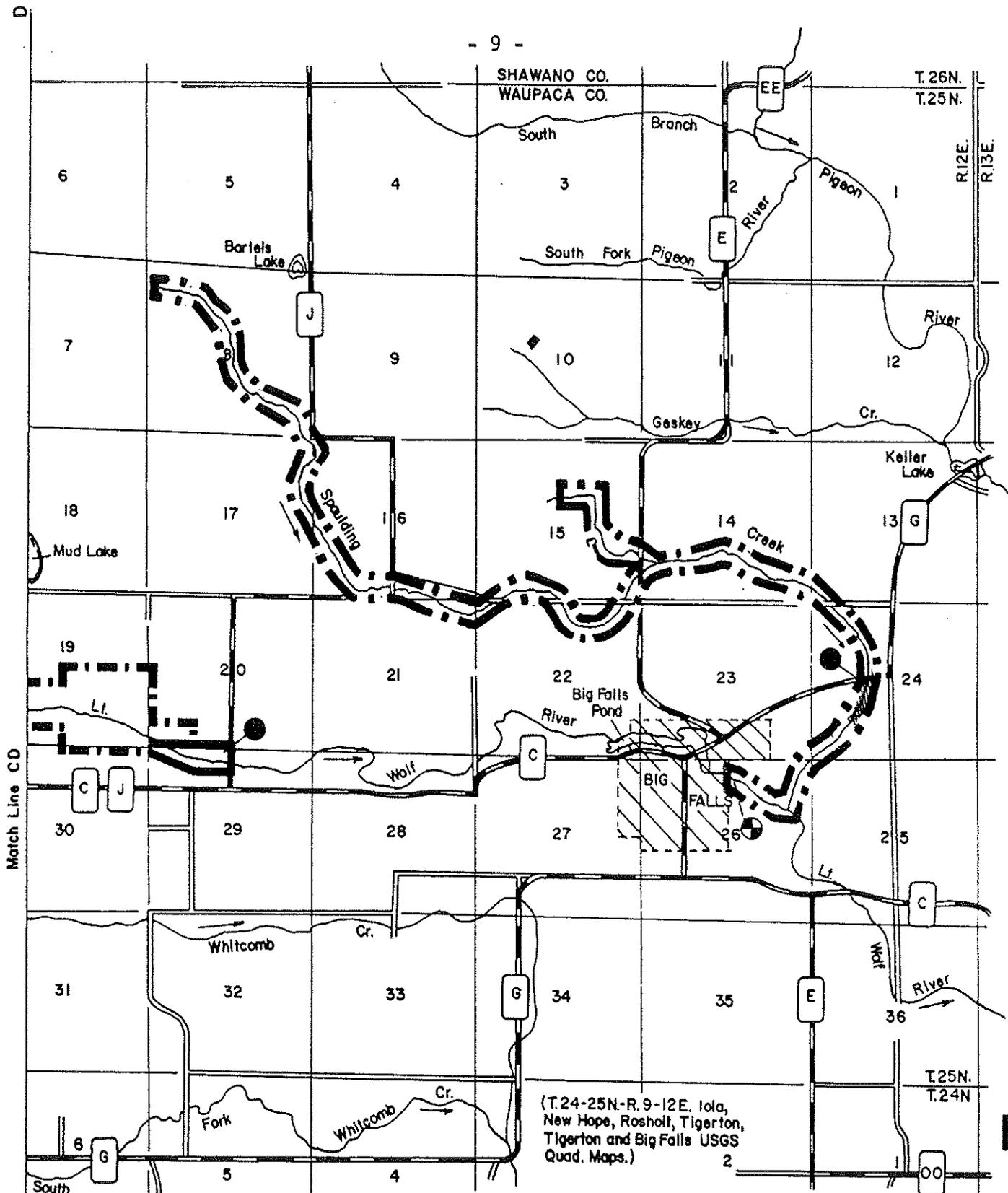
Figure 3a. Existing and Planned Development Map.

LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- Existing Parking Area - - - - - ●
- Proposed Parking Area - - - - - ●
- Existing Stream Hab. Improve. - - - - -
- Proposed Stream Hab. Improve. - - - - -

(T.24-25N-R.9-12E. Iola, New Hope, Rosholt, Tigerton, Tigerton and Big Falls USGS Quad. Maps.)





LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 3 of 3 Maps



Figure 3c. Existing and Planned Development Map.

LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- Existing Parking Area - - - - -
- Proposed Parking Area - - - - -
- Existing Stream Hab. Improve. - - - - -
- Proposed Stream Hab. Improve. - - - - -

Beaver and their dams have caused considerable problems on the system and their activities will have to be monitored continually to protect these valuable trout waters. Fencing will be required if livestock have access to state lands.

Habitat development will begin on lands already under Department control as soon as plan approvals, funds and personnel are available. Selective improvement of additional lands which may be acquired in later years can be handled as conditions change. The development of habitat improvement for fish or wildlife will include the creation of parking facilities and the posting of signs to accommodate increased use of these areas.

Wildlife management will be directed toward forest wildlife species including white-tailed deer, gray squirrels, raccoons, woodcock and ruffed grouse. Management activities will include habitat improvement measures such as planting, thinning and timber harvests only on lands where benefits can be expected.

Lowland brush wildlife habitat will be improved by altering the ages of each stand through a series of small clearcuts. This will be done in a staggered manner so there will always be a portion of lowland brush at the optimum age level for white-tailed deer, ruffed grouse and woodcock. Where possible, individual stands of brush will be allowed to increase in size by encroaching into adjoining agricultural fields now being sharecropped or lying fallow. This will enhance wildlife habitat by the creation of additional "edge" to benefit a greater diversity of species.

Upland brush cover type will be increased by allowing natural succession to take place. Natural encroachment and planting of silky dogwood and hazelbrush will improve game habitat.

Large, open grasslands lend themselves to some scattered plantings of upland shrubs and conifers. These plantings will be varied in species composition and range in size from 3 to 5 acres. This will be done in a patchwork pattern and the unaltered openings will be allowed to succeed naturally. The end result of breaking up the larger fields will be an increase in the amount of "edge" available to wildlife.

Various-aged oak stands should be managed in maximum density for acorn production to benefit wildlife. This will involve silvicultural techniques that preserve cull and snag trees where possible, while prescribing optimum basal area for acorn production.

Cover types will be managed consistent with the best silvicultural and aesthetic techniques. Management of the present timber stands will include maintaining and improving the present species composition where necessary to increase the ability of the stand to protect the watershed. Timber stands will be managed to increase their health and growth rate. Seedlings will be planted in critical areas to enhance water quality and to provide additional and varied wildlife habitat. This will take place mostly in the grass, field, upland brush and oak vegetative cover types.

Even-aged management will be applied to the aspen stands using a clearcut harvest at rotation age to establish a pure, fully stocked stand of root sucker regeneration. The rotation age will be established relative to the site index for each stand.

The management objective in the oak stands will be to produce maximum amounts of pulp and quality sawtimber where not in conflict with wildlife objectives. Attaining a species diversity will be advantageous. Either even-aged or selective cutting will be applied dependent upon species composition and site capabilities.

Recommended management practices required over the next 20 years have been prescribed and scheduled according to the procedures of the Department's "Compartment Reconnaissance System", and will be updated as practices are completed.

Increased parking facilities are required to accommodate the anticipated increase in recreational use of the area. Three small parking lots (Figures 3a and c) with 5-10 car parking capacities on crushed rock surfaces are proposed. Each parking lot will be located just off an existing town road to minimize adverse impacts upon aesthetics and wildlife habitat.

The parking lots proposed would be located on state-owned land and developed as needed if, and when, the sites become state-owned. Development of parking areas should coincide with stream improvement work to accommodate any increases in public use that might occur. The cost of each lot will vary from \$500 to \$1,500 depending on the size and amount of crushed rock required.

All areas proposed for development will be examined for the presence of endangered and threatened wild animals and 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 and time permit. Additional property objectives may be developed following completion of this inventory.

All lands will be opened to public hunting, trapping, educational tours and day-use activities except for 257 acres under easement for fishing access only.

Vehicular traffic will be kept to a minimum on state-owned lands within the boundary in order to maintain an enjoyable outdoor experience.

Cross-country skiing will be allowed, although no established trails will be offered by the Department of Natural Resources.

SECTION II - SUPPORT DATA

BACKGROUND INFORMATION

The Little Wolf River System Fishery Area offers a unique and beautiful combination of stream and woodlands for a person to explore. The clear, clean waters provide wild trout for the angler's creel but more importantly replenish the inner need for peace and relaxation with natural beauty. The fishery area offers year-round recreation for outdoor enthusiasts who walk its fields, forests and streambanks.

The fishery area as proposed is located in northern Portage and Waupaca Counties. It is made up of the North Branch of the Little Wolf River, the Flume and its tributary, Rainy Creek, with Bradley, Comet, Jackson and Spaulding Creeks. These streams combined, provide nearly 60 miles of high quality trout water as they wind their way through mostly flat to gently rolling forest, grass and farmland. The Little Wolf eventually flows into the Wolf-Fox River watershed in the Lake Michigan drainage.

One particularly beautiful section of the Little Wolf is known as Reamer's Rips. Located in Waupaca County just upstream from the County Highway "J" crossing, the stream rushes over, and around, granite bedrock and boulders creating white-water beauty not normally found in central Wisconsin. There are currently 4.6 miles of stream open to public use on the Little Wolf, 9.0 miles on the Flume, 1.1 mile on Jackson, 3.5 miles on Bradley and 2.8 miles on Spaulding Creek, for a total of 21.0 miles.

Portage and Waupaca Counties provide recreational opportunities for many people of this state. This fact was recognized by the Wisconsin Conservation Department, predecessor of the Department of Natural Resources, when the acquisition of properties along the Little Wolf River was proposed and approved in 1958. An acreage goal for the fishery area was established then at 338.67 acres. This goal was far too small to acquire the valuable stream frontage present on the Little Wolf. Through the years, the Natural Resources Board has approved additional purchases of land outside the approved boundary and currently the property is 113.13 acres above the approved acreage goal.

The Natural Resources Board made an aerial inspection of the Little Wolf River and tributary streams in October of 1977. Additional onsite inspections to evaluate additional acquisition were made by Board members. In January of 1978, the Board announced tentative approval increasing the acreage goal by 1,301 acres, pending development of a master plan and final Natural Resources Board approval.

This master plan will meet the 1978 objectives of the Natural Resource Board to establish a long-range acquisition and development plan to enhance the habitat for fishing, hunting, forestry, and other recreational and educational uses while maintaining the aesthetic qualities of the area.

Acquisition priority will be given to those areas adjacent to the Class I portions of trout water including the major spawning grounds and the nursery and spring areas that are the lifeblood of the system. The estimated cost to purchase 877 acres in 1985 dollars is \$833,000.

Past and current management activities consist of land acquisition, trout stocking on Class II waters, access development and maintenance of 9 access sites, agricultural land use agreements (24.7 acres) and instream habitat improvement on 2,000 feet of Spaulding Creek, in Section 24, T25N, R12E.

During the winter of 1981-82, 28,000 gallons of liquid nitrogen fertilizer spilled into Flume Creek at the Village of Rosholt, Portage County. Surveys showed 65 percent of the trout population was lost on a 7.0-mile stretch of the stream. The trout and plankton populations are currently well on their way toward recovery.

RESOURCE CAPABILITIES AND INVENTORY

Soils, Geology and Hydrology

Soils in the system are derived from the weathering of glacial deposits. Predominant soils are the fine, sandy loams characterized by yellow-brown subsoil covered by light gray-brown topsoil. These are well drained and moderately productive.

There are two major soil associations within the system in Portage County. The Wyocena-Rosholt Association is made up of well drained, gently sloping to very steep soils that formed in loamy deposits and sandy glacial till or outwash sand and gravel. This association is pronounced in areas of glacial drift found on hills and plains and dissected by drainageways.

The gently sloping to steep Wyocena soils are found mostly on hills. Their surface layer is usually seven inches of dark brown sandy loam. The subsoil is sand loam and the substratum loamy sand.

The Rosholt soils are found on plains, hills and escarpments. Their surface layer is six inches of dark brown sandy loam. The subsoil is gravelly, sandy loam in the upper areas and gravelly, loamy sand in the lower areas. The substratum is sand and gravel. Many of the less sloping areas of this association are used for crops like corn or alfalfa. Steeper areas are used for pasture or woodlands. Where soils are cultivated, water erosion can be a problem.

The Kranski-Coloma-Mecan Association consists of well-drained, gently sloping, to very steep, soils that formed in sandy glacial till or in deep, sandy deposits. This association is found on hills in areas of glacial drift and on hilly moraines. The surface layer of the Kranski soils is five inches of dark brown loamy sand. The subsoil is loamy sand above, sandy loam in the middle and loamy sand below. The substratum is loamy sand.

The gently sloping, excessively drained Coloma Soils are in hilly areas of glacial drift. Their surface layer is two inches of very dark brown, loamy sand. The subsoil is loamy sand above, sand in the middle and banded sand and fine sand. The Mecan soils are found on moraines and in hilly areas. Their surface is fifteen inches of very dark brown, sandy loam. The subsoil is sandy loam and loamy sand. The substratum is loamy sand. Major uses are for pastures and woodlands, with some cropping taking place on gentler slopes.

The soils within the system in Waupaca County are similar to those found in Portage County. They are derived primarily from weathering of glacial deposits. Within the fishery area we find loam, sandy loam and peat soils on rolling to undulating uplands with some broad valleys. Common associations are Wyoceña, Kennan, Iron River, Pence and Bevent.

Crystalline rocks covered by glacial deposits cover most of the fishery area. Scattered scenic granite outcroppings occur along the Little Wolf especially near Big Falls. The primary impact of the bedrock on the surface waters is the determination of drainage patterns. Much of the system is covered by the ground moraine of the Cary stage of the Wisconsin glacier. The surface is quite irregular containing numerous drumlins and kettles. The rolling wooded hills scattered with patches of farmland provided a beautiful background for lakes and streams and provide the ideal habitat for fish and wildlife abounding in this region.

Bedrock exerts an influence on the system's surface waters. Precambrian crystalline rock consisting mostly of granite, forms a broad, flat plain underlying Portage County. This plain slopes gently from west to east with a relief of about 300 feet. Drainage in the Little Wolf River system is to the southeast. The outer terminal moraine stretches north to south in Portage County and divides the Wisconsin River drainage system from the Wolf River drainage system. This moraine consists of till, broken by drainage outlets and partially buried by later outwash deposits. A recessional moraine composed of drift similar to the outer moraine, runs parallel to the terminal moraine and east of it. These regions contain kettles formed by buried blocks of ice which melted to form the county's lakes. Precambrian crystalline rocks, Cambrian sandstone and Ordovician dolomites are the major bedrock types found in Waupaca County.

Infiltration of rainwater and snowmelt through the light sandy soils is rapid and lessens the degree of surface runoff into streams and lakes. This condition leads to continual recharge of groundwater supplies and accounts for fairly stable stream flows. Spring seeps are common and groundwater seepage is largely responsible for the abundance of trout streams. An average of 31.0 inches of precipitation fall in one year. About 55% of the average rainfall occurs from May through September with June the wettest month. July has an average temperature of 72°, while January averages 17.6°. With this extreme fluctuation in air temperature, it is easy to see why these springs, with an average daily temperature of 50°F winter or summer, play such an important role in regulating the temperature of the streams in this system particularly during the embryological development stage of trout eggs when constant temperatures near 50°F are required for successful natural reproduction.

Fish and Wildlife

The dominant fish species in the system are brook trout. They are found in all of the tributary streams. Brown trout are present in the Little Wolf and Flume Creeks, but in smaller quantities.

Based on survey data collected in 1954, 1967, 1974, 1981 and 1982, the estimated trout production for yearling and older fish in the various streams of the system is:

	<u>Pounds Per Acre</u>	<u>Trout Per Acre</u>	<u>Trout Per Mile</u>
Little Wolf River	25	163	640
Comet Creek	19	101	210
Jackson Creek	46	545	715
Spaulding Creek	129	689	896
Bradley Creek	--	561	778
Flume Creek	--	549	1209*

*Note: results of 1966 survey - Stream suffered a fish kill in 1982 reducing these figures.

The majority of the system has self-sustaining trout populations averaging about 54 pounds per acre. A shortage of instream cover is probably the most common factor limiting these streams from producing more trout per acre.

Other fish species present include white and northern hog suckers, pearl, blacknose and longnose dace, northern creek and hornyhead chubs, northern common and golden shiners, mottled and slimy sculpins, brook sticklebacks, Johnny darters, rock bass, bullheads and common sunfish. Spaulding Creek receives seasonal migrations of burbot from the nontrout-stream portion of the Little Wolf.

The Class I sections of the system provide a quality fishery for naturally produced brook trout while Class II portions of the Little Wolf and Flume Creek are stocked annually with a total of 2,250 yearling age brook trout to supplement natural reproduction. No stocking is made on the Class I portions of the Jackson, Comet, Bradley, Spaulding, upper Flume or upper Little Wolf.

Creel census surveys show trout fishing pressure on the area to be in the neighborhood of 5,500 angler days per year.

Fish surveys in Portage County are on file at the Wisconsin Rapids office and surveys in Waupaca County are in the Wautoma Area Office. Unsurveyed waters will be studied as time and workloads allow.

Aquatic insect larvae present includes mayflies, stoneflies, caddisflies, dragonflies and damselflies. Crayfish and freshwater shrimp are also found.

The major game animals and furbearers on lands and waters of the various streams of the area include white-tailed deer, gray squirrels, cottontail rabbits, ruffed grouse, puddle ducks, raccoons, muskrats, red foxes, beaver, otters and mink. A variety of nongame birds and animals inhabit the area both seasonally and permanently. Sandhill cranes nest in marshlands along some of the stream bottoms. Reptiles include fox, bull, hog-nosed, and water snakes, and a variety of garter snakes. Turtles present include snappers and

painted species. Amphibians are represented by tiger and possibly, spotted salamanders (an endangered species), spring peepers, chorus frogs, gray tree frogs, green and leopard frogs. Pickerel frogs (an endangered species) may inhabit the springs and seepage areas along the stream.

An osprey (endangered) nest is located in the headwaters area of the Spaulding and Comet Creeks just outside of the boundary in Section 7 of the Town of Wyoming. A great blue heron rookery of about 10 nests is found on this location as well. Although this is privately-owned land, these birds undoubtedly inhabit the stream bottoms and other wetlands in the vicinity.

Public lands are heavily hunted during the deer-gun season. Hunting pressure on state-owned property can be 2 1/2 times the pressure on surrounding private lands. Hunting pressure of 50 hunters per square mile is not unusual on opening weekend. Small game hunting and bow hunting for deer are popular recreational activities.

Other uses of the fishery area are trapping for beaver, otters and muskrats, waterfowl hunting and occasional field trips are also conducted for local high school ecology and biology classes.

Vegetative Cover

The vegetative cover on this property is dominated by plant types normally associated with a high water table. These lowlands are inhabited mostly by hardwood trees. Aspen, ash and soft maple are the predominant species.

Conifers such as cedar, spruce and tamarack have dominated these areas in the past. The swamp conifer stands that still exist are all in some stage of conversion. Lack of intensive forest management in the past, coupled with high deer and rabbit populations have prohibited the conifers from regenerating themselves. There are no new stands of cedar and spruce to replace the old. Their place will be taken by ash and red maple.

There are significant portions of the uplands that are either not stocked at all or are understocked with shrubs or trees. These areas will be looked at for their potential to replace the diminishing conifer cover types in the lowland.

Spaulding Creek

Spaulding Creek originates in the northern part of Waupaca County flowing in a southeasterly direction to the confluence with the nontrout water portion of the Little Wolf. The stream averages 9 feet wide and has a sluggish velocity except for a few "Cascade-type" falls at the lower end. The entire stream is Class I brook trout water. The first statewide habitat improvement project under the trout stamp program was completed on this stream in 1978. A total of \$30,000 was invested in this project located below CTH "G" in Section 24, T25N, R12E.

Flume Creek

Flume Creek originates in Marathon County and flows southeasterly through Portage County where it is joined by Rainy Creek. It merges with the Little Wolf in Section 27, T25N, R11E of Waupaca County. This stream is rated as Class I brook and brown trout water for most of its length with only the lower few miles being Class II. It averages 18 to 20 feet in width and flows over a gravel and sand bottom at about 24 cfs.

Bradley Creek

Bradley Creek originates in northern Portage County at Lions Lake and flows east for 6.0 miles to the Waupaca County line where it joins the Little Wolf. It is a small, coldwater Class I brook trout stream with a hard sand and gravel bottom. It averages 12 feet wide and has a flow of about 4.0 cfs.

Land Use Classification

The Little Wolf River System is best suited for classification as a resource development area because of its size, location, physical and biological features and recreational use, and for that reason, most lands are classified as Fisheries and Wildlife Management (RD₂), as shown on Figures 2a, b and c.

Three locations within the boundary have been designated as Public Use Natural Areas (N). These areas are tracts of land or water where native biotic communities or other natural features including geological or archeological sites persist. They are relatively undisturbed ecosystems that can be enjoyed by the public for nature study, education and aesthetic appreciation, under certain restrictions, without threat of destruction.

In these areas, natural, physical and biological processes will be allowed to operate with a minimum of human intervention. Timber harvest and habitat manipulation will generally be prohibited. Management designed to simulate natural forces which shaped the natural community will be permitted.

The natural areas on the three northern mesic forest streams of the system are as follows:

- 1) Bradley Creek, Portage County. SE, NW and NE 1/4 of Section 13, Township 25 North, Range 10 East. 30 acres. A clear, hard-water spring-fed trout stream with approximately 3/4 mile of public ownership. Dense white

cedars line the stream and shade an excellent variety of understory herbs and forbs. Select cutting has occurred but has not affected the quality of the stream. The breeding bird community is particularly diverse.

- 2) Flume Creek, Portage County. Sections 35 and 36, Township 25 North, Range 10 East. 28 acres. A hard-water, clear trout stream with a moderate flow and is high in scenic value. Roughly 100 feet of white cedar (to 15" DBH) borders the stream on either side. Young balsam fir, hemlock, yellow and paper birch and black ash dominate the rest of the lowland in Section 36. Part of the area is in private ownership.
- 3) Little Wolf River, Portage County. Section 2, Township 25 North, Range 10 East. 52 acres. This river section is very scenic with clear, hard water. Gravel and rubble are the basic bottom materials. Brook and brown trout are present. There was some hemlock reproduction in the uplands.

Historical and Archaeological Features

There have been no conclusive architectural, archaeological or historical surveys in this part of the state. Information concerning the cultural resources of the system is insufficient to make any statements. Surveys coordinated with the State Historical Society will be conducted at each site prior to any movement of soils or structures to identify any significant historical, architectural, or archaeological sites. If development threatens any significant sites, appropriate protective measures will be taken.

Ownership

The state currently owns 435.52 acres in fee title on the Little Wolf, 297.15 on Flume Creek, 138.00 on Jackson Creek, 35.90 on Spaulding Creek, 418.50 on Bradley Creek and nothing on Comet Creek. Easements owned are 16.48 acres on the Little Wolf, 277.43 on Flume, 29.98 on Jackson, 9.80 on Bradley, and 114.74 on Spaulding. Total fee ownership is 1,325.07 acres and total easement covers 448.43 acres for a total acreage owned of 1,773.50.

Current Use

Estimated current use of the system is as follows:

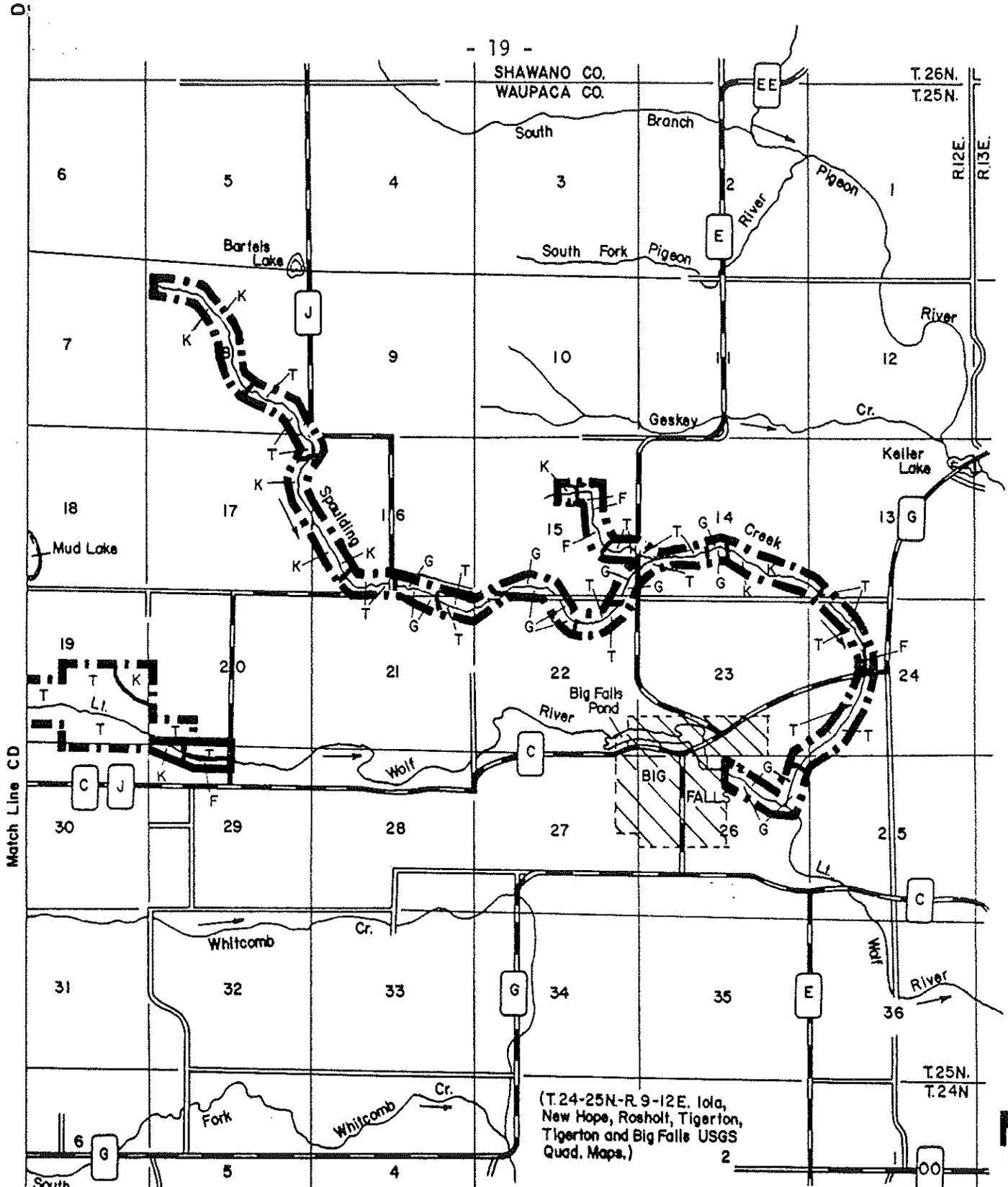
Fishing	8,000 participant-days
Hunting (big and small game)	18,000 participant-days
Trapping	3,000 participant-days
Other recreational and educational uses	8,000 participant-days

Acquisition activity as outlined in this plan should provide enough land and water area to meet the expected annual objectives for future resource use.

SHAWANO CO.
WAUPACA CO.

T.26N.
T.25N.

R.12E.
R.13E.



(T.24-25N-R.9-12E. Iola,
New Hope, Rosholt, Tigerton,
Tigerton and Big Falls USGS
Quad. Maps.)

LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 3 of 3 Maps

Scale 0 2112 4224 Feet

Figure 4c. General Cover Map.

LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- Timber - - - - -
- Marsh - - - - -
- Grassland - - - - -
- Farmland - - - - -
- K
- G
- F

Lutz Lake 18
Moan or Goodhol Lake 17

Table 1 provides detailed information and the attached maps (Figures 4a, b and c) indicate the location and types of the plant cover:

Table 1 - Cover types as determined by reconnaissance survey on the state-owned lands of the proposed Little Wolf River System Fishery Area, Portage and Waupaca Counties.

<u>Cover Type</u>	<u>Acreage</u>	
	<u>Waupaca Co.</u>	<u>Portage Co.</u>
Northern hardwoods sawtimber	78	0
Northern hardwoods pole-timber	11	42
Northern hardwoods seedlings	0	6
Aspen pole-timber	16	206
Aspen seedlings	0	11
Swamp conifers sawtimber	34	0
Swamp conifers pole-timber	19	104
Swamp hardwoods pole-timber	5	127
Swamp hardwoods seedlings	0	8
Oak sawtimber	3	37
Oak pole-timber	29	72
Hemlock hardwoods sawtimber	36	0
Hemlock hardwoods pole-timber	16	0
White birch pole-timber	4	8
White pine pole-timber	0	18
White pine sawtimber	0	18
Tamarack	0	8
Fir spruce	0	2
Jack pine seedlings	0	11
Jack pine pole-timber	0	5
Red pine pole-timber	0	4
Lowland brush	0	62
Upland brush	14	10
Upland grasses	26	0
Keg	15	137
Other/Ag	4	0
Streambank under easement not typed	397	129
Lands not typed due to recent purchase	0	41
Total	707	1,066

Endangered or Threatened Species

Habitat is suitable for the endangered spotted salamander and pickerel frog, although none have been reported. No other endangered or threatened species of fish, amphibians, molluscs, mammals, birds, reptiles or wild plants are known to exist on the property. Any area proposed for development will be surveyed first to determine the possible presence of species that should be protected. Coordination with the district liaison for endangered and nongame species will be arranged, and appropriate protective measures taken.

Surface Water Resources

The North Branch of the Little Wolf originates in Marathon County flowing south and east through Portage and Waupaca Counties where it joins the Wolf River just west of New London. Numerous tributaries join the Little Wolf but in this plan we are concerned only with the Flume, and its tributary Rainy Creek, and Bradley Creek in Portage County and the Comet, Spaulding and Jackson Creeks in Waupaca County. Tables 2a and b supply information about each of the streams or impoundments.

Table 2a - Streams of the Proposed Little Wolf River System Fishery Area, Portage and Waupaca Counties

Stream	County	Total Length of Stream	Stream Miles Within the Fishery Area of:		
			Class I	Class II	Public Stream
Bradley Creek	Portage	5.9	5.9	0.0	3.5
Comet Creek	Waupaca	8.0	8.0	0.0	0.0
Creek 5-16	Waupaca	1.0	1.0	0.0	0.0
Creek 18-13a	Portage	2.8	2.8	0.0	0.0
Flume Creek	Portage	15.6	15.6	0.0	9.0
Flume Creek	Waupaca	5.4	2.0	3.4	2.5
Jackson Creek	Waupaca	3.8	3.8	0.0	1.1
Jones Creek	Waupaca	1.3	1.3	0.0	0.0
N. Br. Little Wolf River	Portage	3.1	1.3	0.0	1.1
N. Br. Little Wolf River	Waupaca	31.3	5.3	7.6	4.6
Rainy Creek	Portage	1.8	1.8	0.0	1.2
Spaulding Creek	Waupaca	6.7	6.7	0.0	2.8
Totals		86.7	55.5	11.0	25.8

Table 2b. Impoundments Within the Proposed Little Wolf River System Fishery Area, Portage and Waupaca Counties

Name	County	Surface Acres	Maximum Depth	MPA	pH
Northland Mill Pond	Waupaca	9.0	6	175	8.2
Total		9.0			

An impoundment at Northland creates a small, shallow flowage on the fishery system. This impoundment has a summer warming effect and during winter creates water temperatures near freezing during the critical trout egg hatching period (when eggs require 50°F temperatures) on waters below the dam. The dam also prevents migration of adult trout to spawning areas. The flowage contains habitat favorable for the establishment of warmwater fish species. Carp and other rough fish, or trout predators including northern pike could enter the system from it. Elimination of the pond by acquisition or abandonment would be advisable.

The system's streams contain clear, summer cold and winter warm, alkaline and hard water with an average pH of 8.0, a conductance of 392 (Mmhos/cm 77°) and total alkalinity of 189 ppm. Table II shows the specifics for all the water resources in the system.

North Branch, Little Wolf River

The North Branch of the Little Wolf River is a hardwater tributary to the Wolf River and is one of the most scenic waterways in central Wisconsin. It is designated as a Class I brook trout water from the Portage-Waupaca County line downstream to the town road in Section 26, T25N, R11E. From this point, the stream is a Class II water downstream to the town road in the NE 1/4, Section 28, T25N, R11E.

The stream in the lower portion is considered nontrout water, but does have excellent conditions for smallmouth bass for much of the stream from this point downstream to the junction with the Wolf River. Figures 2a, b and c show the trout classification for all streams in the system.

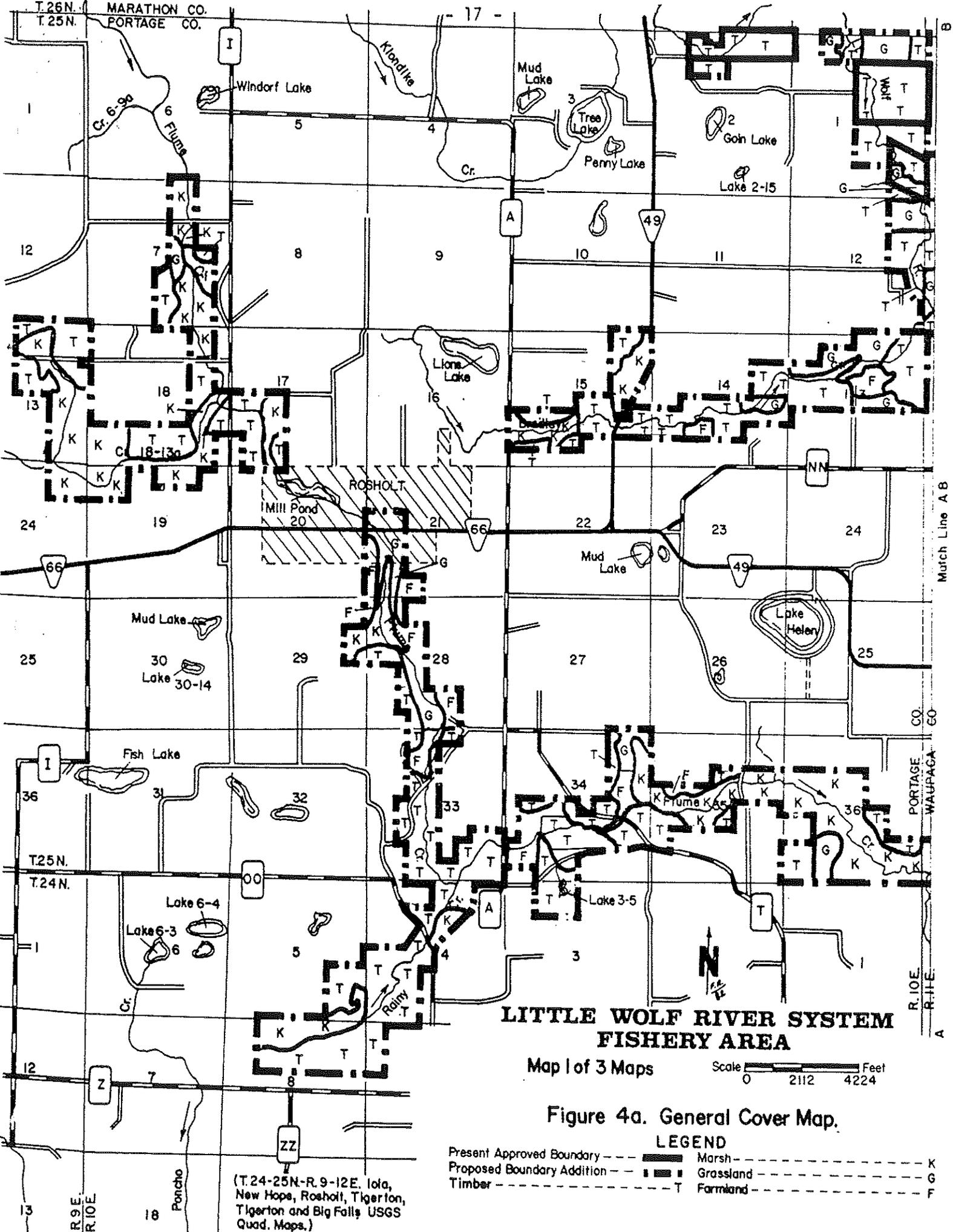
The Little Wolf is a comparatively large stream that varies in width from 20 feet near the Portage-Waupaca County line to 80 feet in the vicinity of Highway "J" in Section 29, Township of Wyoming, Waupaca County.

Jackson Creek

Jackson Creek originates in Shawano County flowing in a southerly direction into Waupaca County to the confluence with the Little Wolf. Spring feeders add cool, well-oxygenated waters to the stream. This Class I brook trout stream is a very important spawning feeder of the Little Wolf system. Downstream drift of Jackson Creek young-of-the-year and yearling trout contribute to the population present in the Little Wolf River. The stream averages 16 feet wide and the general flow is sluggish to moderate.

Comet Creek

Comet Creek originates in Shawano County and flows in a southerly direction into Waupaca County to the confluence with the Little Wolf. Several high quality spring feeder streams, including Jones Creek, supplement the main channel flow and provide necessary habitat for the perpetuation of native brook trout. Stream velocity is variable and ranges from sluggish to fast-moving riffle-rapids areas. The average stream width is seventeen feet and the entire stream is Class I brook trout water.



**LITTLE WOLF RIVER SYSTEM
FISHERY AREA**

Map 1 of 3 Maps

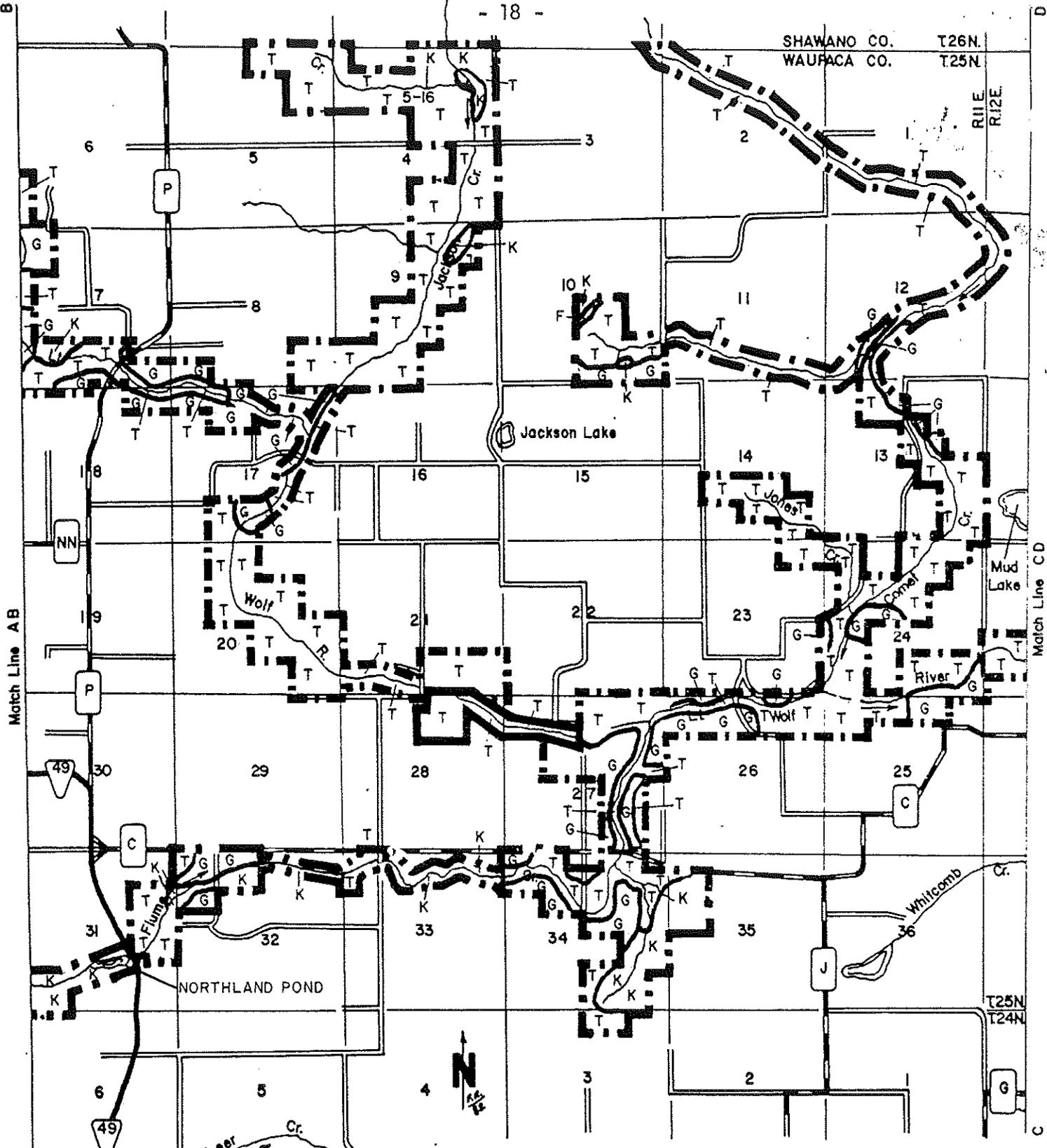
Scale 0 2112 4224 Feet

Figure 4a. General Cover Map.

LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- Timber - - - - -
- Marsh - - - - -
- Grassland - - - - -
- Farmland - - - - -
- K
- G
- F

(T. 24-25N.-R. 9-12E. 10a,
New Hope, Rosholt, Tigerton,
Tigerton and Big Falls USGS
Quad. Maps.)



LITTLE WOLF RIVER SYSTEM FISHERY AREA

Map 2 of 3 Maps

Scale 0 2112 4224 Feet

Figure 4b. General Cover Map.

LEGEND

- Present Approved Boundary ————
- Proposed Boundary Addition ————
- Timber ————
- Marsh ————
- Grassland ————
- Farmland ————

(T.24-25N-R.9-12E. lola, New Hope, Rosholt, Tigerton, Tigerton and Big Falls USGS Quad. Maps.)

18 17

MANAGEMENT PROBLEMS

Beaver

Beaver impoundments and activity, especially on portions of Spaulding and Comet Creeks continue to cause damage to stream habitat. Beaver damage complaints received from private landowners in the watershed area of the Little Wolf System within Waupaca County alone have increased almost 10 times in the last 5 years.

Liberalization of the beaver season and the issuance of permits to landowners to destroy beaver and beaver dams have done little to alleviate this problem. During 1981, it became necessary for Department personnel to remove beavers and beaver dams that had caused the entire 1978 Spaulding Creek trout stream habitat improvement project to become inundated, thus jeopardizing a \$30,000+ investment in Trout Stamp funds expended there. Continued beaver and beaver dam removal will be necessary in these Class I streams in the future to retain the trout water habitat characteristics that are endangered by beaver activities.

Need for Habitat Improvement

Excessive growth of brush on streambanks leads to excessive shading, prevents fishing opportunities and fails to provide bank cover resistant to erosion.

Lack of pool and bank cover for larger sized fish limits potential for growth and angling opportunities for larger fish.

Dead and dying trees falling into streams cause slowing of flows and a damming and widening effect on the streams.

Private Land Manipulation

Platting and subdividing of lands are in competition with acquisition goals for the fishery area.

High Deer Density

High deer densities in many areas have precluded regeneration of oak, cedar and hemlock.

Human Conflicts

High hunter density during gun-deer season can produce safety problems as well as stimulate unethical conduct. The present crush of people on popular recreation areas result in crowded conditions that result in decreasing recreational satisfaction. Public lands in this vicinity experience in excess of 50 hunters per square mile on opening day of the gun-deer season. Vandalism of signs and fences is a continuing problem which can be expected to increase in the future.

Minor conflicts between canoeists, tubers, and fishermen will probably increase in the future.

Water Quality Problems

Increased use of water for irrigation during periods of drought and the unknown effects involving the use of fertilizers and pesticides on adjacent croplands could lead to water quality problems.

Warmwater habitat in the Northland Mill Pond can mean an increase in predators like northern pike or the introduction and spread of rough fish species.

RECREATIONAL NEEDS AND JUSTIFICATION

The system is within an easy drive of Wausau, Wisconsin Rapids, Stevens Point, Shawano, Waupaca and Green Bay. In 1980, the population of Portage and Waupaca Counties was 100,251. These counties are prime recreational centers and becoming more heavily used by the public as time goes on.

The demands for fish and wildlife resources and associated recreational and educational opportunities have been steadily increasing. Statewide, Wisconsin anglers and hunters spend over 50 million days enjoying these recreational pursuits. By 1990, use is expected to reach 66 million days. The current demand for our fish and wildlife resources is generated by over 2.25 million users. The user demand for other recreational and educational uses of these resources such as hiking and photography is generated by as many as 4 million people statewide.

The acquisition and development of public land in central Wisconsin by the Department of Natural Resources will help meet future recreational needs.

The streams of the system are well known for their natural beauty and their fishing, hunting and recreational benefits. Present fishing pressure is on the order of 5,500 participant-days per season. By 1990, fishing pressure is expected to rise 8 to 10%. Approval of the recommended acquisition boundaries and purchase of remaining stream frontage must remain a high priority if the land and water resources are to be maintained and improved.

ANALYSIS OF ALTERNATIVES

Do Nothing

A "do-nothing" approach would mean increased pressure and public use of the existing areas under public ownership. Future users would find the present area overcrowded and the quality of the outdoor experience reduced.

The most productive trout streams in Wisconsin have open, marsh-meadow type stream edge. This type of ecological niche will be lost through plant succession by endorsing a "do-nothing" approach. The stream edge will be

dominated by brush and woody-type vegetation, degrading the stream habitat for trout by reducing bank undercuts, pool cover and invertebrate insect life. Excessive shade on streambanks will reduce sunlight that is the basic energy source in the food chain for all living organisms. Dead and dying trees will fall into the channel altering the flow, and cause difficult fishing conditions. Habitat conditions could deteriorate to the point where the stream would find it more difficult to maintain a self-sufficient trout population and annual trout stocking would be needed to maintain a viable fishery.

Lands not acquired would be lost to private development and posted against public use. Habitat preservation and improvement activities such as streambank riprap, instream device construction, streambank vegetative control, and alleviating chronic upland erosion problems are expensive and private landowners in general have little incentive to maintain or improve habitat conditions. The end result leads to a general deterioration of a variety of habitat types.

Housing subdivisions would eventually result in suitable stream frontage within the boundary and trespass restrictions would deny the general public use of suitable fishing frontage and access sites along a popular navigable waterway.

Enlarge the Fishery Area (Recommended Alternative)

Enlargement of the property boundaries is desirable, recommended and is described in Section I. The ever-increasing use by fishermen, hunters and naturalists will eventually overtax the present resource. The proposed enlargement of the property will also preserve and protect the water quality of the stream. The recommended enlargement would extend the boundaries to allow an additional purchase of 1,000 acres of land.

Reduce the Fishery Area

Attainment of the goals and objectives would be impossible if the area was reduced. Public use of natural resources of irreplaceable value would be lost.

Appendix - Comments of Outside Reviewing Agencies to the Little Wolf River System Master Plan

A number of comments to the 45-day review issue of the Little Wolf System Master Plan were received from reviewers outside of the DNR. Their comments, and Department responses where necessary are included in this Appendix.

Orville Klinger, New London Fish and Game Club.

Overall view of Master Plan - Excellent.

The New London Fish & Game Club at its directors meeting on June 5, 1985 voted to accept the modifications to the Master Plan for the Little Wolf River System Fishery Area per the transmittal of James T. Addis of May 13, 1985. The opinion of our club is that the Master Plan and its modifications are purposeful and timely, and we suggest that it be implemented as soon as possible.

Charles P. Kell, Planning Director, Portage County Planning Department, Stevens Point.

Overall view of Master Plan - Good.

Attached please find our department's comments on the DNR Master Plan prepared for the Little Wolf River System as it relates to segments within Portage County.

It would be helpful in the future if a list of people and agencies receiving an opportunity to comment was included with your transmittal letter so we know if the local officials have been made aware of the Master Plan preparation.

DNR Response: This could be incorporated into future plans if the Department feels this is a problem. We do, however, attempt to send it to every pertinent person and organization.

Thank you for the opportunity to comment on this Plan. If you have any questions regarding our comments, please call.

1. The proposed additions to the boundaries of the Little Wolf River Fishery Area include certain lands which have been identified for agricultural preservation in Portage County's Farmland Preservation Plan (see attached map). Lands so identified by the County may be placed under long-term farmland preservation agreements, at the request of the landowner. Such agreements would limit the use of these lands to agricultural activities for periods from 10-25 years. The DNR may wish to consider the potential impact of the Farmland Preservation Program on their acquisition goals for these areas.

The potential acquisition of timberlands or marshlands by the DNR, where such lands are part of a farm unit, would be consistent with the objectives of the County's Plan as long as such acquisition would not affect the productive capability of the farm. However, the proposed

addition of certain croplands to the fishery area boundary would be in conflict with the objectives of the County's Plan should this ultimately result in the removal of these croplands from productive status. The croplands in question are identified on the General Cover Map on page 17 of the Master Plan (T25N, R10E, Sections 21, 28, 34, and 35). Several areas have been identified which are believed to be in farm use, but which are shown in the DNR Master Plan as timber or grassland (see attached amendments to Figure 4A).

DNR Response: The DNR attempts to avoid the purchase of cropland wherever possible. In some cases perpetual easements are initiated along strips of stream frontage where cropland is present. Another method for avoiding DNR ownership of cropland is to purchase a farm and then resell everything but the stream frontage. Trading cropland for additional stream frontage is another method in use. The incorrect labeling of grassland and farmland on the cover map is due to changes in land usage. A field that is typed as grass in 1982 can be cropland in 1985.

2. A recently developed Land Use Plan (attached) for the Town of New Hope (T24N, R10E) specifically addresses the issue of public land acquisition in the Township. An excerpt from the Plan is attached for informational purposes.

Excerpt from the Town of New Hope Land Use Plan

H. Goal

Limit the acquisition of New Hope lands for public projects (e.g. Tomorrow River Fishery area, New Hope Pines, and Little Wolf River Fishery area).

Policies

1. The tax base of the Town should be maintained by encouraging private ownership of the Town lands.
2. Department of Natural Resources' project boundaries should be amended to exclude the land suitable for agricultural purposes.
3. Agricultural land currently under public ownership should be considered for sale or trade to private parties.
4. Open land owned by the Department of Natural Resources and not returned to private ownership should be maintained under cultivation to produce crops and to serve as a buffer from wildlife crop damage to private crop land in the vicinity.
5. New public projects or enlargement of existing projects should not be considered without input by the Town Board and Town residents.
6. Department of Natural Resources should assume responsibility for overcrowding of public lands and for behavior of public users such as trespass on private land and littering of public access roads.

7. Local authorities should be compensated for services provided to public project areas and to users of those areas.

DNR Response: The Town of New Hope Land Use Plan was created without DNR input to the best of our knowledge. This is unfortunate in view of DNR's land management responsibilities. Department managers in the area are willing to participate with county planners in efforts to resolve issues presented by the Town of New Hope. We recognize that our basic charge may be in conflict with some local interests.

3. Information concerning the potential economic impact of DNR land acquisition would be an important addition to the Master Plan. The potential impacts to local towns and counties would seem to be significant in light of the proposed acreage goal of 2,650.5 acres.

DNR Response: Two major, impartial but critical studies, by the University of Wisconsin Department of Agricultural Economics and by the Wisconsin Legislative Audit Bureau show that the purchase of lands by the state has little effect on the property taxes of local people.

4. The proposed boundary addition includes a large area of existing residential development within the Village of Rosholt, on both the north and south sides of Highway 66. We question whether this area was intended to be included in the project area and request clarification of this matter.

DNR Response: Acquisition interests would lie only south of Highway 66 and only for a strip of land along each bank of the stream.

Marion Beyer, Conservation Congress, Portage County, Almond, WI.

Overall view of Master Plan - Excellent.

No other comments.

Dick Lindberg, Department Liaison to the Wild Resources Advisory Council.

The Wild Resources Advisory Council's review of this plan generated the following comments.

1. Under Annual Objectives, the term man-days of participation should be changed to participant-days of participation.
2. The property has no wild or wilderness area potentials.

DNR Response: Agreed to both comments.

3. The "natural area" designations should be changed to "public use natural areas" to conform with definition of the Wild Resource Resolution. The areas designated in the plan are not of interest to the Scientific Areas Preservation Council. Also, it would be helpful to readers to describe the natural features the areas offer and how they will be managed.

DNR Response: Requested additions have been made.

4. It is unclear why additional parking areas are going to be needed if there are no anticipated increases in the number of participant days of use.

DNR Response: There is an anticipated increase in public use in the years to come. It will depend upon future acquisition success, improvement in the fishery and whether or not public awareness of the fishery area increases. If and when the need for more parking arises, additional parking areas will be proposed.

5. Inasmuch as non-hunting use exceeds hunting use, aren't greater expenditures of money for non-hunting activities justified?

DNR Response: Such as what? The fishery area is open for hiking, cross-country skiing and other nonhunting uses (except for motorized vehicle use). The plan stresses leaving the area as natural as possible, so we don't want marked trails, toilets or camping.

6. There needs to be more emphasis on nongame wildlife species and threatened and endangered plants and animals.

DNR Response: This has been covered as well as need be. We've recognized their value, and possible presence and have pledged our protection for them if discovered. There will be an inventory to increase our knowledge if time and workload and monies permit.

7. Including the boundaries of source streams is an excellent plan feature.

DNR Response: Thank you.

8. The maps are somewhat confusing. And, can the boundaries of the natural areas be shown on the maps?

DNR Response: The scale of the maps prevents showing natural area boundaries accurately.

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

We have reviewed the Master Plan for the Little Wolf River System Fishing Area in Portage and Waupaca Counties. We request that whenever you plan to acquire an interest in lands which abut the right of way of a State Trunk Highway, you coordinate your activities with D. L. Cronkrite, Director, Wisconsin Department of Transportation, 1681 Second Avenue South, Wisconsin Rapids, WI 54494 (715) 421-8300.

We recommend that whenever you plan to acquire an interest in any lands abutting the right of way of township or county trunk highways, you coordinate with the appropriate officials in those levels of government.

Thank you for the opportunity to review and comment on this Master Plan.

DNR Response: Coordination with appropriate state and county highway departments will be arranged in all future plan developments in the Wisconsin Rapids Area.

Harrison R. Noble, Izaak Walton League, Stevens Point, WI.

1. Why was the upper Wolf in SE Marathon County omitted? I liked that part downstream from Galloway to town bridge. Also upstream below the next town road. Beavers dammed it at a fence line for a number of years.

DNR Response: Based upon surveys and file information the boundaries stopped at the county line. We also had an acreage goal to consider. Boundaries could be extended in the future if surveys show important stretches of water to be included.

2. Parking on Flume, Sec. 35 - Alban Township - and two on Wolf - Sec. 17 - one at Isaakson bridge - and another at the North deadend road which I believe ends at private land. Good access to fine area - fished a lot.

Suggest buying access to Wolf - Section 17, Town of Harrison, from end of short dead end road - 4 rods wide and north along the west line of the crop land. I parked there many times.

DNR Response: We will look into the possibility of the access sites suggested in the future if public use requires additional space.

Ray Omernick, Rt. 1, Wittenberg, WI.

Overall view of the Master Plan - Fair.

The Plan should also include the headwaters of the Little Wolf, Holt, Klondike and Comet Creeks in Marathon County.

DNR Response: Boundaries were based upon existing file information and surveys. We also attempted to keep down the acreage goal since increased acreage goals had to be borrowed from other existing projects. Boundaries could be extended in the future if needed.

Forest Sterns, Chairman Scientific Areas Preservation Council.

We have reviewed the Little Wolf River Fishery Area Master Plan and appreciate the recognition of three natural areas which were identified in the Portage County natural area inventory.

The Council visited one site of 52 acres in Section 2, T25N, R10E on a field trip in 1984. We recommend that this reach of the Little Wolf River which was classified as public use natural area in the plan (page 23) be changed to scientific area.

We appreciate the opportunity for review and comment.

DNR Response: To the best of my knowledge they do not meet the criteria for Scientific Area. They were classified public use natural areas and that classification is adequate.

Michael Vanderford, Staff Fishery Biologist, Federal Aid, U.S. Fish and Wildlife Service, Fort Snelling, MN.

Overall view of the Master Plan - Excellent.

In general, we continue to be impressed by the constructive and practical planning efforts Wisconsin pursues for trout stream areas. Both for Federal Aid documentation and for proper allocation of state budgets such Master Plans as this are exemplary.

DNR Response: Thanks.

Page 24: Regarding beaver control. Given that the Fishery Area is expected to produce multi-purpose benefits it may be worthwhile to allow local sportsmen's clubs to take responsibility for beaver control. Could also be part of hunter education program in county.

DNR Response: The department has tried all possible methods for beaver control. We have found the most reliable system to be the use of private trappers followed by the removal of the dams. Local clubs have neither the interest nor the expertise to handle beaver control.

Stanley A. Nichols, State Geologist, Madison, WI.

Overall view of Master Plan - Good.

Page 1, Annual Benefits #2. Canoeing should be added to this list as a likely use. Especially in the area of "Reamers Rip."

DNR Response: Due to shallows, fallen logs, brush, small town road crossings and rocks; most of the Little Wolf River and its tributaries are not suitable for canoes. That is why it was left out.

Page 5 - The land transfer and classification system is not very clear, especially #5 and #8 where different acreages are being transferred from Waupaca County remnant acres.

DNR Response: It is clear enough for department understanding so no need exists to attempt changes.

Page 11, par. 5 - Are parking lots paid for with trout stamp funds?

DNR Response: No. They would be funded through the request for development projects and non-trout stamp funds.

Page 13, par. 7 - change soping to sloping.

Page 14, par. 3 - eliminate "formations" after bedrock and add "s" to exerts.

Page 16, par. 6 - change "coifers" to "Conifers".

DNR Response: Corrections made.

Page 21, Table 26 - Big Falls Millpond isn't showing as being in the management area.

DNR Response: It's not within the acquisition boundary and should not have been listed.

Karen Peters, Waupaca County Conservation Congress Member, Fremont, WI.

Overall view of Master Plan - Excellent.

I can't find any objections to the overall plan. Definitely one of your best plans.

The only people who talked against it was a fisherman who feared that three wheelers would ride the edge of the streams and cause problems on state land.

DNR Response: No motorized vehicles are allowed on state fishery areas. Most stream bottoms are too soft and heavily vegetated to ever appeal to use by 3-wheelers.

3502N

Note: (This revision combines Form 1600-1 and 1600-2 into one form.)

DISTRICT OR BUREAU NCD
DOCKET NUMBER
TYPE LIST DESIGNATION(S) NR150.03(2)(e)4

ENVIRONMENTAL ASSESSMENT
(ATTACH ADDITIONAL SHEETS IF NECESSARY)
(REFERENCE INFORMATION SOURCES UTILIZED)

Applicant: Department of Natural Resources

Title of Proposal: Little Wolf River System Fishery Area

Location: County Portage, Waupaca
Township 25 North, Range 10,11,12 East, WestX
Section(s) _____
Political Towns Wyoming, Harrison, Alban

PROJECT SUMMARY

1. General Description (brief overview)

A DNR Fish Management Area containing 1,641 acres of land on six streams in two counties. The water and land contain excellent habitat for brook and brown trout as well as fish and wildlife. The area is managed for fish, wildlife and forestry, and provides many recreational opportunities. The Master Plan proposes adding 1229.62 acres of remnant area on five tributary streams owned by the state to the Little Wolf River Fishery Area. This would form one complete unit called the Little Wolf River System Fishery Area. It also calls for increasing the acreage goal on the "System" by 1000 acres. This will allow for acquisition purchases to help meet planning goals.

2. Purpose and Need (include history and background as appropriate)

State control and management are required to protect this valuable and delicate trout stream and its surrounding watershed. State management ensures the resources will not be degraded by agricultural practices, urban development or harmful land use practices. The fishery area is surrounded by a population of an estimated 700,000 people.

3. Authorities and Approvals (list statutory authority and other relevant local, state and federal permits or approvals required)

- 1) Statutory Authority to Initiate Wis. Statutes 23.09 and 30.12; Chapter NR 80 Wis. Adm. Code
- 2) Permits or Approvals Required Stream improvements by District Director. Project boundaries by Natural Resources Board. Internal water regulatory approval.
County zoning approval may be necessary for parking areas.
- 3) Participants notified of above requirements? Yes
- 4) Does this proposal comply with floodplain and local zoning requirements? Yes

4. Estimated Cost and Funding Source

Land acquisition to complete property goals is estimated at \$950,000. Acquisition costs are covered by state and federal programs. Habitat work would be covered under the trout stamp.

Time Schedule: Continue land acquisition and habitat improvement based upon availability of lands and funds.

PROPOSED PHYSICAL CHANGES

5. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yds., etc.)

See Addendum #1.

6. Manipulation of Aquatic Resources (include relevant quantities - cfs., acre feet, MGD, etc.)

Proposed stream habitat spot development will involve the installation of half logs and bank structures within several miles of stream. Approximately 50 bank structures and 50 half logs are proposed for future installation. Diagrams showing the construction of habitat devices are attached. Figures 3a-3c show areas proposed for habitat improvement. If beaver continue to be a problem in the future, trapping and dam removal will be required to prevent damage to aquatic life and habitat.

7. Buildings, Treatment Units, Roads and Other Structures

Habitat improvements, as described above, will be recommended on the LWRFA in future years. Work will be small in scope and will probably be completed under the Trout Stamp Program.

8. Emissions and Discharges

Exhaust emissions from trucks working on parking lot improvement might have a slight impact on air quality, but none that could be measured.

9. Other Changes

Three small parking lots each with a 5-10 car capacity are proposed. Lots would have crushed rock surfaces and be located adjacent to existing roads to minimize impacts upon vegetation and aesthetics. Property boundaries will be located and posted with appropriate DNR signs. This will provide the public with a way to identify state land open to recreation and minimize the chance of trespass on surrounding private lands. Five tributary streams with a total of 1229.62 acres will be added to the Wolf River "System"

10. Attach Maps, Plans and Other Descriptive Material as Appropriate (list)

Location map Little Wolf River System Fishery Area. Diagrams of half logs and bank structures. The acreage goal for the system will be expanded by 1000 acres for meeting acquisition and planning goals. If fencing is required through cooperative fencing agreements with adjoining landowner, the installation of barbed wire fence may be involved.

AFFECTED ENVIRONMENT

Information Based On (check all that apply):

- Literature/correspondence
- Personal Contacts (list in item 31)
- Field Analysis By: Author, Other (list in item 31)
- Past Experience With Site By: Author Other (list in item 31)

11. Physical (topography - soils - water - air - wetland amounts and types)

See Addendum #2

12. Biological

a. Flora

Forest vegetation is composed of stands of jack pine, white pine and scrub oak. Interspersed among forest stands are grassland openings, upland and lowland brush and agricultural fields. No rare or endangered species are known to inhabit this area. The sand and gravel bottom stream contains no significant aquatic vegetation.

b. Fauna

The stream contains brook trout as well as aquatic invertebrates characteristic of a cold water environment. Adjacent lands contain white-tailed deer, fox, racoon, squirrel, ruffed grouse, woodcock and a wide variety of nongame birds and animals. There are no known rare or endangered species present. As acquisition and habitat development occur, we will watch for the presence of endangered or threatened species of fish and wildlife. Appropriate measures will be taken to preserve them and their habitat should they be discovered. An osprey nest and great blue heron rookery are located on the headwaters of Spaulding and Comet Creeks in the Town of Wyoming. These nesting areas are on private property. The spotted salamander and pickerel frog may be found in the system.

13. Social/Economic (include ethnic and cltural groups, and zoning if applicable)

The economy of the surrounding area is based upon agriculture, primarily cash crops like corn, potatoes and beans. The Fishery Area is close to Stevens Point and Waupaca. The Fishery Area is popular with local fishermen. It attracts the most activity early in the season, then gradually declines. Nonconsumptive recreational uses like skiing and hiking are on the increase. Currently 1,641 acres are in state ownership. Fishing pressure, hunting, and non-consumptive uses can all be expected to increase in future years as surrounding land is lost to use by the public. DNR ownership includes 257 acres under perpetual easement for fishing purposes only. The Master Plan has asked that an additional 1000 acres be included in the acreage goal.

14. Other Special Resources (e.g., archaeological, historical, endangered/threatened species, scientific areas, natural areas)

The State Historical Society reports four possible archaeological sites within the fishery boundary and has requested notification in the event that any development takes place. There are no other known scientific or historical features.

ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)

15. Physical (include visual if applicable)

See Addendum #3.

16. Biological

See Addendum #4.

17. Social/Economic (include ethnic and cultural groups and zoning if applicable)

See Addendum #5.

18. Other Special Resources (e.g., archaeological, historical, endangered/threatened species, scientific areas, natural areas)

Surveys coordinated with the State Historical Society will be conducted at each site prior to development. If development threatens any significant historical or archaeological sites, appropriate protective measures will be taken. A naturalist will be consulted before significant alteration of any habitat type takes place where rare or endangered species may be involved.

19. Probable Adverse Impacts That Cannot Be Avoided

Habitat development projects will temporarily increase turbidity and disturb the stream bottom and banks. If heavy equipment is used for instream structures, it would disturb stream side vegetation for the length of one growing season. Improvements to the area may result in increased public use but this should cause only minor adverse impacts such as littering and vandalism. The proposed parking lots will cause soil compaction and destruction of vegetation at the parking site. Removal from the tax role will cause a loss of revenue, but the financial loss will be absorbed by the entire state not just the local community. The alteration in vegetation for Fish, Wildlife, and Forestry Management is not considered adverse impacts.

ALTERNATIVES (no action - enlarge - reduce - modify - other locations and/or methods)

20. Identify, describe and discuss feasible alternatives to the proposed action and their impacts. Give particular attention to alternatives which might avoid some or all adverse environmental effects.
1. No Action
Fish and game populations would remain at current levels for awhile, then drop slowly. This would vary with hunting and fishing pressure, weather and natural disasters.

Lands not purchased by the state will be sold for subdivision, irrigated farming, campgrounds or some similar use. Habitat would slowly deteriorate due to natural succession, beaver dams, forest diseases, etc.
 2. Enlarge
Project goals as outlined in the Master Plan are adequate at the proposed level.
 3. Decrease project size
Any decrease in size would be detrimental to the purpose of preserving and providing lands and water for public benefit. Public recreational lands will become more and more important in future years.
 4. Modify
Management practices and principals have been proven to be effective and economical. Modification would not be necessary unless research develops new practices which offer more benefits.
 5. Other locations
Does not apply.
 6. Continue management of individual streams under the remnant program - Individual project management is more time consuming and lacks the efficiency that a combined project offers. It makes more sense to manage a watershed than to manage the individual streams that comprise it.

EVALUATION (Discuss each category. Attach additional sheets and other pertinent information if necessary.)

21. **Secondary Effects:** As a result of this action, is it likely that other events or actions will happen that may significantly affect the environment? If so, list here and reference their discussion in items 15-18 as appropriate.

Yes, habitat management will improve environmental conditions for fish and wildlife and populations will benefit. Removal from the tax role will cause a loss of revenue, but the financial loss will be absorbed by the entire state, not just the local community.

22. **New Environmental Effect:** Does the action alter the environment so a new physical, biological or socio-economic environment would exist? If so, list here and reference their discussion in items 5-10 or 15-18 as appropriate.

No, however, the proposal will maintain and enhance an existing valuable and irreplaceable resource.

23. **Geographically Scarce:** Are the existing environmental features that would be affected by the proposed action scarce, either locally or statewide? If so, list here and reference their discussion in items 15-18 as appropriate.

Yes, good trout waters are not common statewide. Protection and preservation for the future by state purchase or easement is desirable.

24. **Precedent:** Does the action and its effect(s) require a decision which would influence future decisions? Describe.

No. This type of program has been in effect in Wisconsin for many years.

25. **Controversy:** Discuss and describe concerns which indicate a serious controversy or unresolved conflicts concerning alternative uses of available resources.

None known.

26. Consistency With Plans: Does the action conflict with local or agency zoning or with official agency plans or policy of local, state or federal government (e.g., NR 1.95)? If so, how? Refer to applicable comments in item 31.

No. The proposed Master Plan for this property is consistent with state and national concerns for the protection and enhancement of our natural resources.

27. Cumulative Impacts: While the action by itself may be limited in scope, would repeated actions of this type result in major or significant impacts to the environment?

Yes. This is an excellent program and project. It should be encouraged and expanded statewide and nationwide. Trout stream environments and adjoining wildlife lands would definitely be benefited.

28. Foreclose Future Options: Is the action irreversible? Will it commit a resource (e.g., energy, habitat, historical features) for the foreseeable future?

Nothing has been done or will be done which cannot be changed. All changes are very slight and only for environmental improvements. The loss of fossil fuels through vehicles and machinery is irreversible.

Any historical or archaeological sites located on land owned by the Department will be protected.

29. Socio-cultural Impacts: Will action result in direct or indirect impacts on ethnic or cultural groups or alter social patterns?

No

Yes, refer to item 17.

30. Other:

LIST OF AGENCIES, GROUPS AND INDIVIDUALS CONTACTED REGARDING THE PROJECT (Include DNR personnel and Title)

31.	<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
	Spring 1982	Wisconsin Rapids Master Plan committee members	Contributed to plan.
	Spring 1982	Lake Michigan District Master Plan committee members	Contributed to plan.
	Fall 1982	Public meeting in Waupaca	25 concerned citizens in favor of present and proposed management of lands and waters.

Project Name:

County:

RECOMMENDATION

EIS Not Required.....

Analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion therefore, an environmental impact statement is not required prior to final action by the Department on this project.

Refer to Office of the Secretary.....

Major and Significant Action: Prepare EIS.....

Request EIR.....

Additional factors, if any, affecting the evaluator's recommendation:

94/12/83

SIGNATURE OF EVALUATOR Jack F. Zimmermann	DATE 12-21-82
NOTED: AREA SUPERVISOR OR BUREAU DIRECTOR	DATE

Number of responses to public notice meeting attendance 25

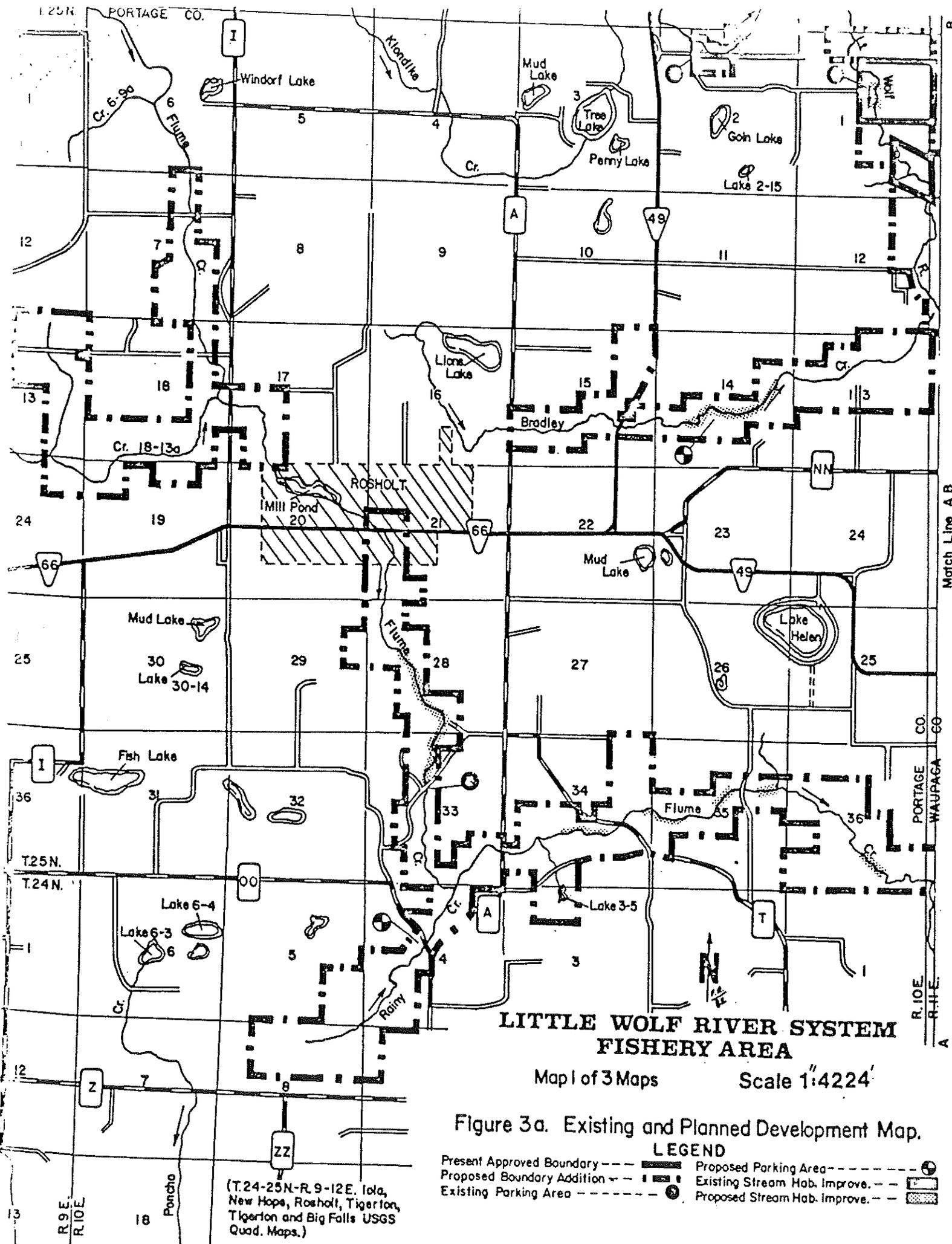
Public response log attached?..... Yes

CERTIFIED TO BE IN COMPLIANCE WITH WAPA
DISTRICT DIRECTOR OR DIRECTOR OF BEI (OR DESIGNEE) -

Sally A. Burt

DATE July 28, 1985

This decision is not final until certified by the appropriate District Director or the Director of BEI. If you believe you have a right to challenge this decision, you should know that Wisconsin Statutes and Administrative Codes establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.15 and 227.16, Stats., you have 30 days after service of the decision to file your petition for review. The respondent in an action for judicial review is the Department of Natural Resources. You may wish to seek legal counsel to determine your specific legal rights to challenge a decision. This notice is provided pursuant to s. 227.11(2), Stats.



**LITTLE WOLF RIVER SYSTEM
FISHERY AREA**

Map 1 of 3 Maps Scale 1:4224'

Figure 3a. Existing and Planned Development Map.

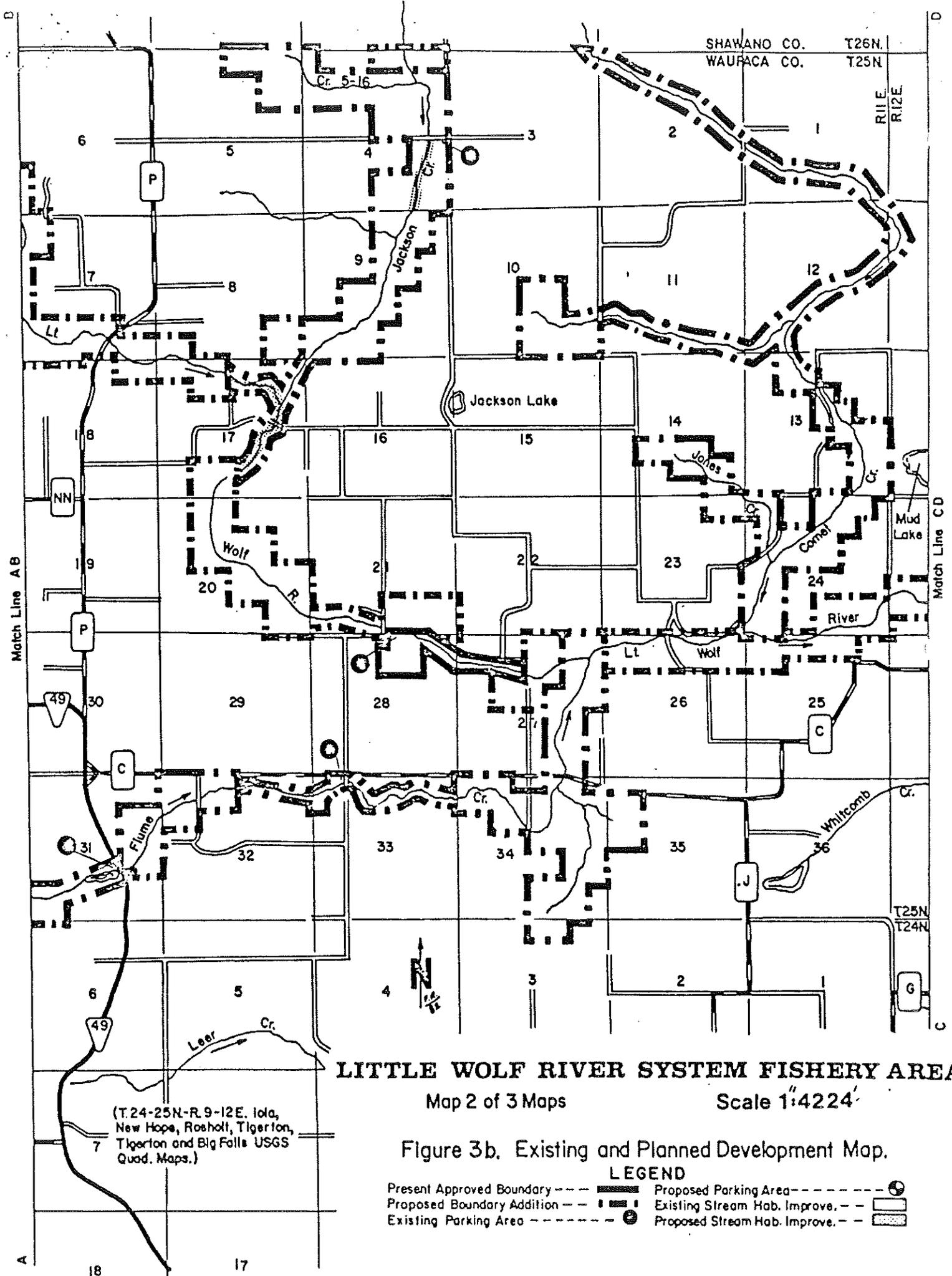
LEGEND

- Present Approved Boundary - - - - -
- Proposed Boundary Addition - - - - -
- Existing Parking Area - - - - -
- Proposed Parking Area - - - - -
- Existing Stream Hab. Improve. - - - - -
- Proposed Stream Hab. Improve. - - - - -

(T.24-25N-R.9-12E, Iola, New Hope, Rosholt, Tigrion, Tigrion and Big Falls USGS Quad. Maps.)

Match Line A B

PORTAGE CO. WAUPAGA CO. R.10E R.11E



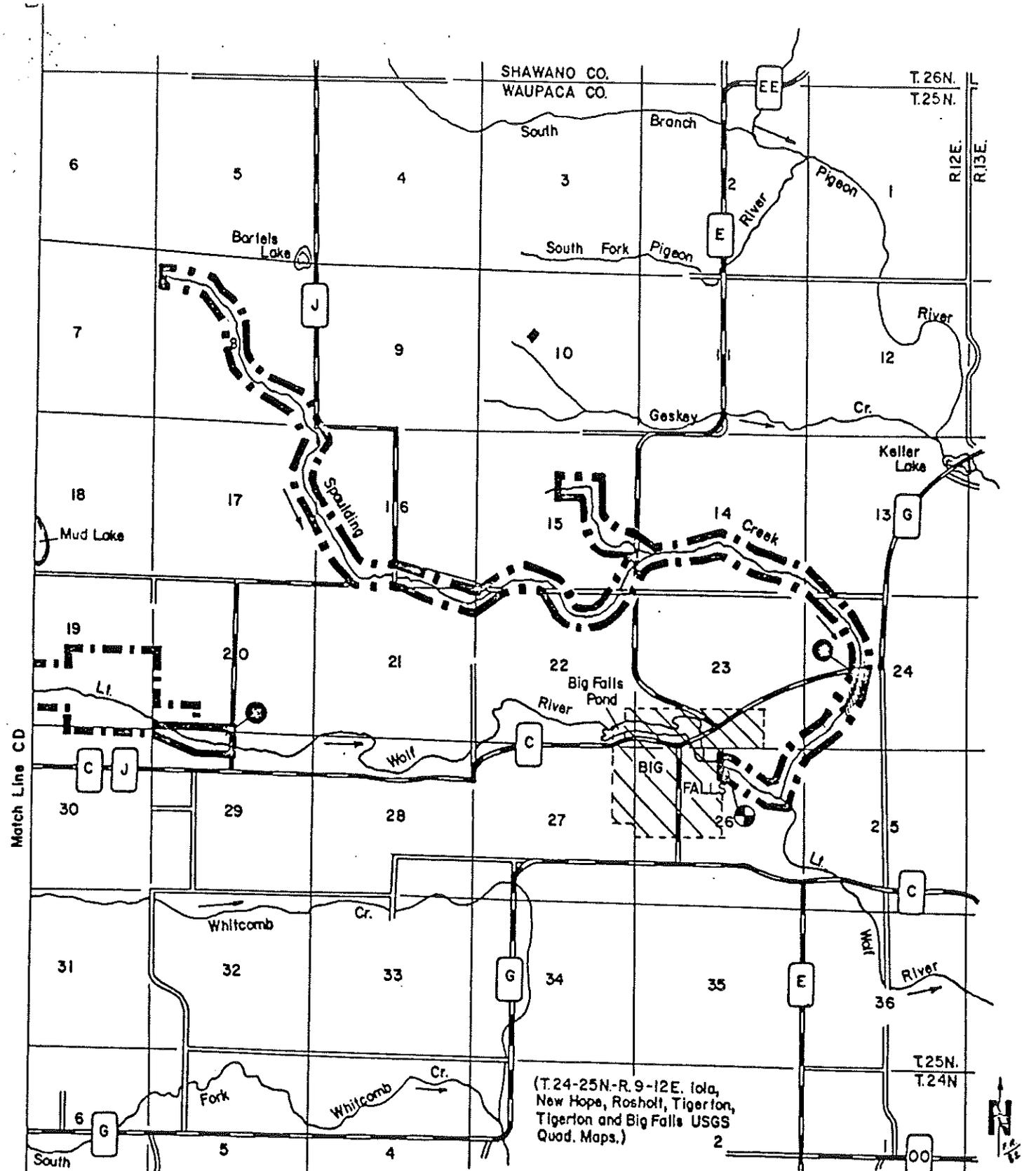
LITTLE WOLF RIVER SYSTEM FISHERY AREA
 Map 2 of 3 Maps Scale 1"=4224'

Figure 3b. Existing and Planned Development Map.

LEGEND

- | | | | | |
|----------------------------|-----------|-------------------------------|-------|---|
| Present Approved Boundary | ----- | Proposed Parking Area | ----- | ⊙ |
| Proposed Boundary Addition | - - - - - | Existing Stream Hab. Improve. | ----- | ▭ |
| Existing Parking Area | ⊙ | Proposed Stream Hab. Improve. | ----- | ▭ |

(T.24-25N-R.9-12E. 10a,
 New Hope, Rosholt, Tigerton,
 Tigerton and Big Falls USGS
 Quad. Maps.)



LITTLE WOLF RIVER SYSTEM FISHERY AREA
 Map 3 of 3 Maps
 Scale 1"=4224'

Figure 3c. Existing and Planned Development Map.

- LEGEND**
- Present Approved Boundary ---
 - Proposed Boundary Addition - - - - -
 - Existing Parking Area - - - - -
 - Proposed Parking Area - - - - -
 - Existing Stream Hab. Improve. - - - - -
 - Proposed Stream Hab. Improve. - - - - -

ADDENDUM #1

Management of the area will result in slight manipulation of vegetation. Activities will only be conducted on acreage already under state ownership and will expand to the acreage within the proposed boundary as additional lands are acquired. Timber management will result in low volume harvest in accordance with forest reconnaissance plans and will be consistent with wildlife management objectives. Wildlife management will be directed towards creating a diversity of habitat types. Where practical and necessary, the planting of vegetative cover suitable for wildlife will take place. Woody vegetation like tag alder will be removed in selected sections along streambanks and sprayed with Ammate to prevent regeneration. Ammate will be applied by licensed DNR applicators using Department of Agriculture guidelines and following instructions on the label. Offroad vehicles will not be allowed on the property or be permitted to destroy vegetation. No overnight camping will be allowed. The spraying of Ammate will be done with small backpack hand held sprayers to keep the spray controlled at all times. Brush that is removed will be placed away from the floodplain in piles for use by wild animals and birds.

Cross-country skiing and hiking will be allowed on state lands but no groomed or signed trails are planned at this time. The use of snowmobiles and other motorized vehicles will be prohibited.

ADDENDUM #2

The Little Wolf River and its tributaries join the Wolf-Fox River watershed in the Lake Michigan drainage. Topography is flat to steeply rolling with sandy moderately productive soils. Class I and II trout water flows through a forested watershed lightly interspersed with agricultural fields. Air and water quality are high and wetlands are found adjacent to stream bottoms. The Little Wolf in Portage and Waupaca Counties contains 14.2 miles of Class I and Class II trout water. Flume Creek contains 21.6 miles, Bradley Creek 5.9 miles, Comet Creek 8 miles, Jackson 3.8 miles, and Spaulding Creek 10 miles. The streams have an average pH of 8.0 conductance of 392 Mmhos/cm 77° and total alkalinity of 189 ppm.

ADDENDUM #3

The installation of instream structures will result in temporary turbidity and disturbance to the streambed and banks. Permanent physical impacts to the stream will include increased water velocities, scouring, narrowing and deepening. The installation of bank structures, half logs, brush bundles, and the removal of beaver dams and unwanted tag alder and willow along the streambanks will improve fishability and navigability. The use of sandbags to cover bank structures will reduce the amount of streambank disturbance because no rock will have to be brought into habitat improvement sites with heavy equipment. Removal of woody vegetation and application of herbicide to kill unwanted tag alder and brush will result in grasses becoming established along the streambank. Development of three small parking lots will cause the loss of a small amount of vegetation at each site. Wildlife management may involve some cutting or thinning to promote edge and species variety. Timber management may include the harvest or thinning of stands as recommended by the forester's recon plan. Parking lot construction would involve a minimum of clearing and grading for sites large enough to park 5 to 10 cars. Surfaces may be covered with crushed rock or left in a natural condition. Lots will be located on level ground to minimize erosion and maintenance. Impacts from the physical removal of timber will be reduced by careful planning and layout of access roads. Contractors will be required to take precaution against erosion and property damage. No sales or thinning will take place in environmentally sensitive areas. Beaver dams impede normal water flows, prevent upstream movement of fish, act as sediment traps, increase stream temperatures and generally cause harm to the sensitive stream environment. Removal of these dams is essential to keep negative impact to the aquatic community to a minimum. Removal of the dams creates negative impact on beavers which must move to other locations. Beaver are well suited to move to other warm-water streams where their dam building is less likely to cause damage.

Addendum #4

Beneficial biological impacts of habitat work will strongly outweigh any adverse impacts. Stream side brush removal could have a minor effect on grouse and woodcock. This removal is very small, however, in relation to similar habitat available elsewhere on the property. Brush will be replaced by reed canary grass and other native grasses which will provide escape cover for wildlife while stabilizing stream banks. Brush removal allows more sunlight to reach the stream thus increasing plant growth which provides cover and food for invertebrates.

Rocks and lumber used in the construction of deflectors and structures will provide a permanent substrate for invertebrates as well as providing cover for trout. The narrowed stream channel with increased flow will expose new gravel spawning areas and keep others free of silt and sediment. Adverse biological impacts will come from the temporary disruption of the stream bottom during construction. This will have no serious effect on the aquatic community. Timber sales will be conducted in response to proper silvicultural practices. Minor, temporary impacts on understory vegetation and soils can be expected from logging equipment. Sales will not be allowed where serious impact to flora or fauna would result.

Addendum #5

There will be an increase in land available for outdoor recreation as acquisition continues. The increased recreational opportunity will attract more outdoor recreationalists to the area. The modifications to the stream and vegetative cover along the bank will improve navigability by creating easier wading and improved fishability. Restricting off-road vehicular access will reduce illegal litter and overnight camping problems. An increase in the acreage goal of 1000 acres has been requested. This will allow the purchase of additional stream frontage on the Little Wolf and its 5 tributaries. The value of this land in terms of recreation will more than compensate for any minor impacts on the local economy.

The affect of this property on the local economy should not be significant. Slightly increased expenditures for gas, food, bait and lodging might be expected. Property taxes will no longer be collected after state ownership. However, there will not be any adverse economic impacts upon the community. The state will continue to make payments in lieu of taxes at a rate declining 10% each year. In no year shall the payment fall below \$.50 per acre, or 10% of the present tax, whichever is greater. Timber sales will generate additional funding to the state. The construction of additional access sites will make recreational use of the fishery area more convenient.

Date: November 12, 1982

File Ref: 2100

To: John G. Brasch

From: Robert H. Smith *RHS*

Subject: Little Wolf River - Master Plan - Public Meeting

On November 11, 1982, a public meeting was held at Waupaca. The purpose of the meeting was to inform the public and to gather their comments as to what they thought should be included in a master plan for the Little Wolf River river system. In addition to the Department of Natural Resources people present at the meeting, there were about 25 people from the public. Department of Natural Resources people at the meeting were Jack Zimmermann, James Keir, Paul Lochner, myself and several persons from the Oshkosh Area.

No specific suggestions for inclusions into the master plan were received. There were a number of general comments made as follows:

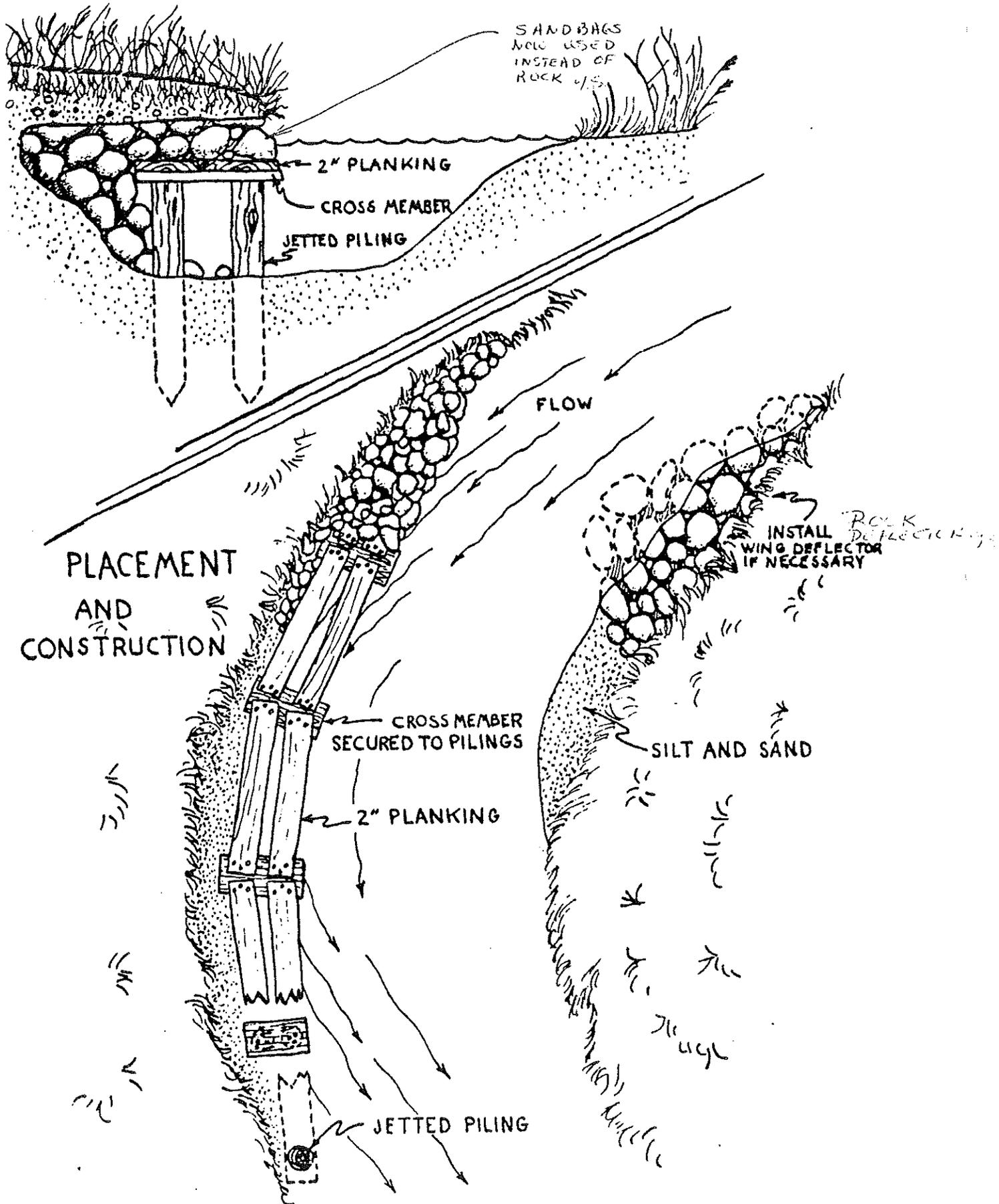
1. Canoeists should be band from the river.
2. With more people coming into the area littering, which is a problem now, could become even greater.
3. The Department of Natural Resources would not take our property from us would they?
4. Where does the money come from that you use to purchase the lands?
5. Will irrigation, which lowers the groundwater level, affect the level of the waters in the creek?
6. Farm chemical spills may be the worse thing that could happen to the streams in that watershed.

All questions were answered to everyone's satisfaction. It was a good meeting.

RHS:bw

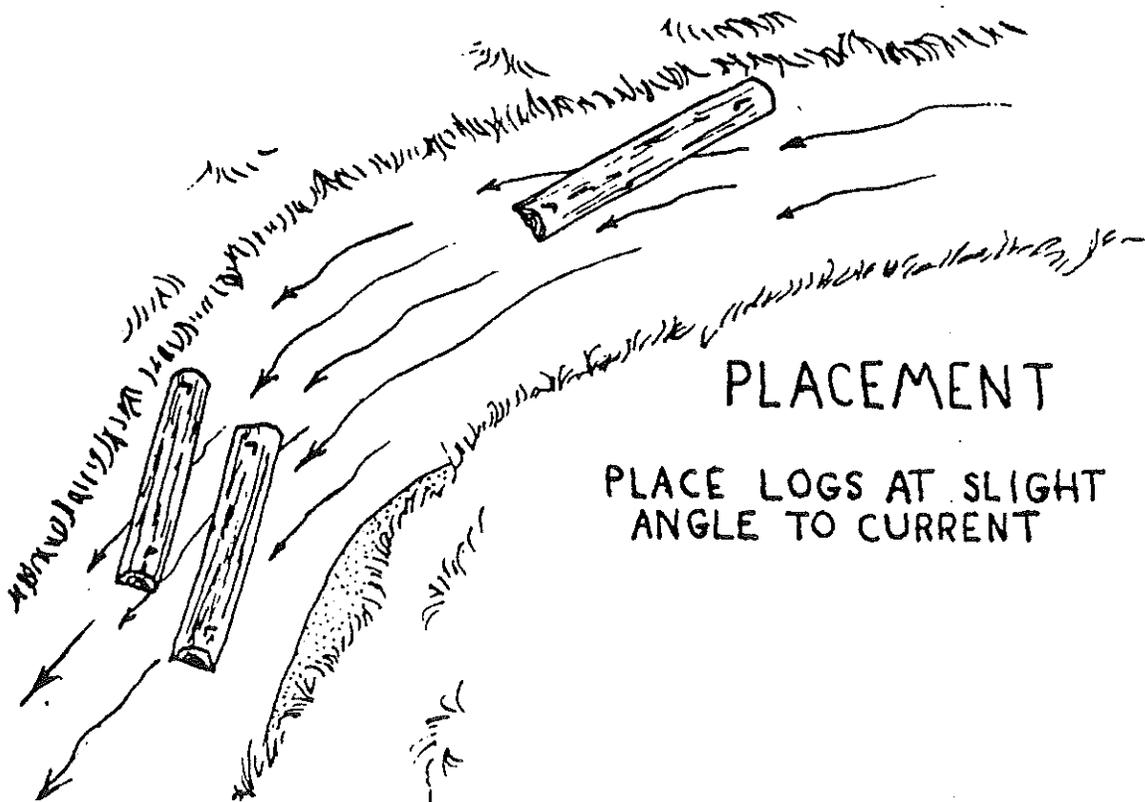
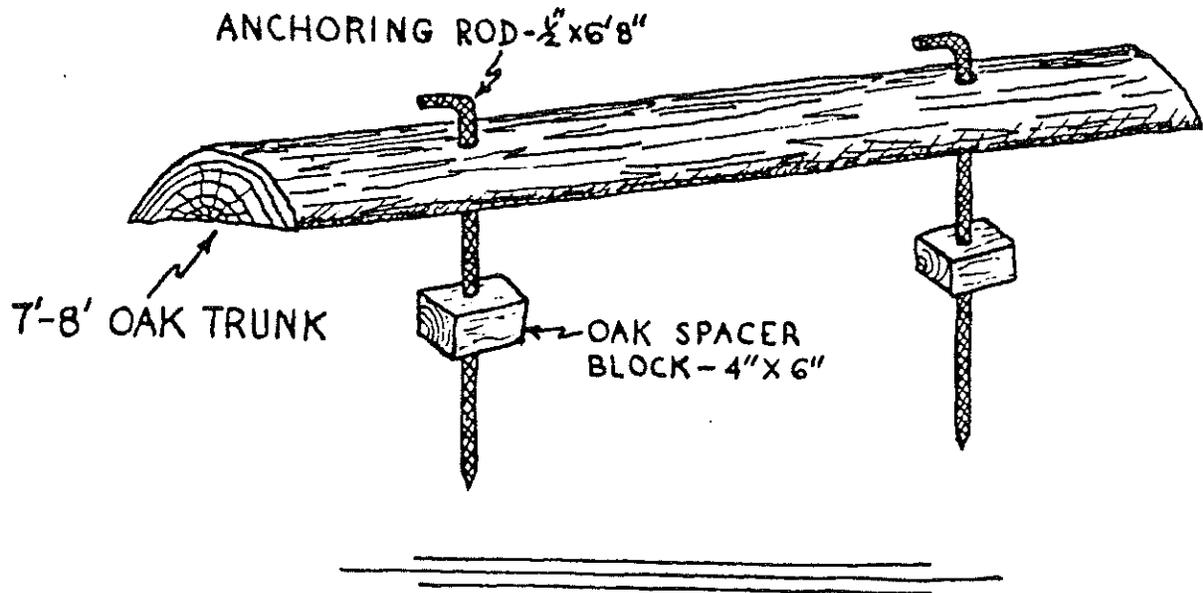
cc → Jack F. Zimmermann
A. E. Loomans

BOOM COVER CONSTRUCTION



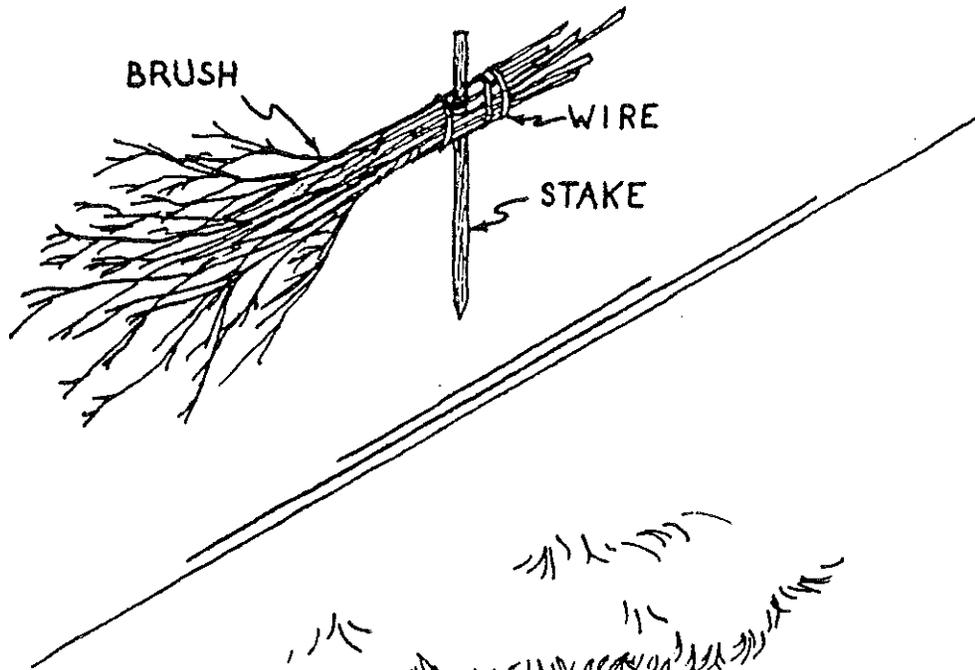
TYPICAL HALF LOG DIAGRAM

COMPONENTS



BRUSH BUNDLE CONSTRUCTION AND PLACEMENT

COMPONENTS



PLACEMENT

▣ - AREAS OF SILT DEPOSITION

○ - STAKE

← - STREAM FLOW

North Central District

Approval of Department Project located in or adjacent to navigable waters.

(This approval must accompany any Department project where a permit or approval under Chapters 30 and 31, Wisconsin Statutes, or Chapter NR 115 and NR 116, Wisconsin Administrative Code, would be necessary if undertaken by a private individual. It is to be attached to the Environmental Assessment for the project or to the plans, if no assessment is required.)

Project Name and Location: Fish habitat improvement structures
for streams in the Little Wolf River System Fishery Area, Portage County.

Sponsor: Jack Zimmermann, Wisconsin Rapids Area Fish Management

The project has been reviewed and found to be consistent with the standards of
s. 30.12, Stats.

Conditions of approval: Brush piles shall be placed in areas not subject
to flooding.

All necessary approvals shall be obtained from the County Zoning Administrator prior to the start of the project.

The below approval authorizes this Department of Natural Resources project according to Manual Code 3565.1.

APPROVED:

John Brasche
District Director

9-16-83
Date

cc: As noted

Area Office Wisconsin Rapids
 Water Regulation Section, WRZ/5
 Bureau of Environmental Impact, EI/3
 Corps of Engineers
 Zoning Administrator, Portage County
 Director, Bureau of Fish Management, FM/4