

Form 1100-1
Rev. 11-82

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. _____

SUBJECT: MASTER PLANNING - Approval of the Master Plan for Cherokee Marsh Fishery Area, Dane County, with an acreage goal of 1,727 acres.

FOR January, 1985 BOARD MEETING
(month)

TO BE PRESENTED BY: James T. Addis

RECEIVED

JAN 10 1985

BUREAU OF
WATER RESOURCES

SUMMARY: The final draft of the master plan for Cherokee Marsh Fishery Area, Dane County, has been prepared and is presented for review and approval. It proposes that the present acreage goal of 1,027 acres be increased by 700 acres for a new goal of 1,727 acres. The increased acreage would be transferred from the statewide Small Lakes Creation acreage goal.

Currently, the state owns 870.65 acres in fee title within the boundary, or 50.4 percent of the proposed new acreage goal. The City of Madison owns land within and immediately adjacent, but outside of the present boundary, and Dane County owns adjacent land outside of the boundary. A 430-acre parcel within the boundary is proposed as a Public Use Natural Area, and 185 acres partly within the present boundary owned by the City of Madison have been designated by the Scientific Areas Preservation Council as Cherokee Marsh Scientific Area No. 130. A 20-acre parcel adjacent to the Scientific Area owned by the state is proposed as an addition to it.

The master plan recommends that the approved boundary be changed to exclude the lands owned by the City of Madison.

The master plan has been thoroughly analyzed and discussed and has the approval of Dane County, City of Madison, and Townships of Burke, Westport and Windsor officials. The master plan is part of the jointly adopted long-range open space plan of 1981.

No controversy is anticipated.

RECOMMENDATION:

That the master plan be approved.

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

APPROVED:

cc: Judy Scullion - ADM/5
Douglas Morrisette - SD
Craig Karr - ADM/5
Ron Poff - FM/4
Carl Evert - OL/4

James T. Addis
Bureau Director James T. Addis

11/12/84
Date November 12, 1984

James R. Huntoon
Administrator James R. Huntoon

1/2/85
Date

C. D. Besadny
Secretary C. D. Besadny

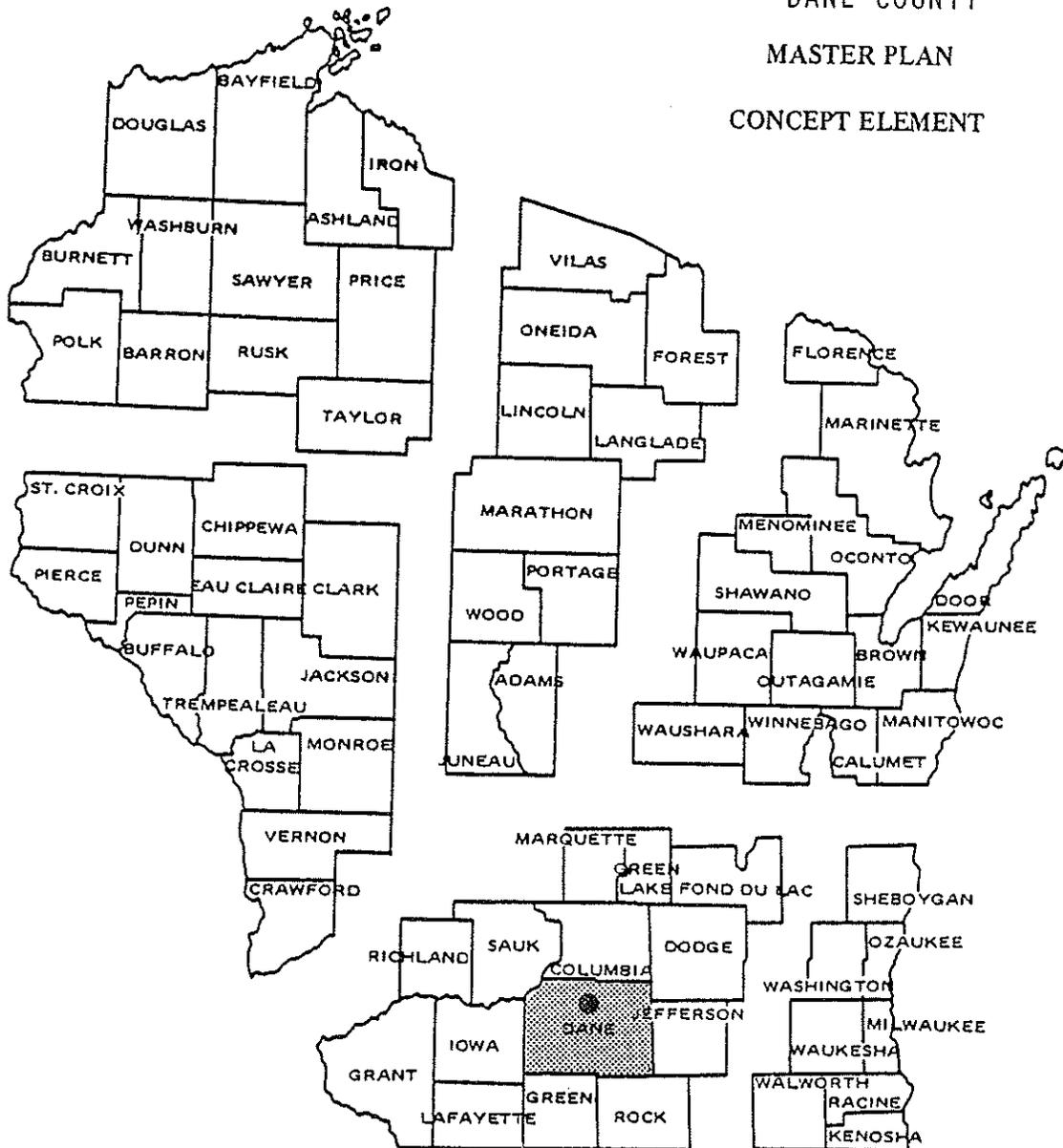
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Date

CHEROKEE MARSH FISHERY AREA

DANE COUNTY

MASTER PLAN

CONCEPT ELEMENT



Property Task Force

- Leader – Clifford Brynildson - Area Fish Manager
- Jon Bergquist - Area Wildlife Manager
- Paul Pingrey - Area Forester
- Robert Weiss - Park Manager
- David Rasmussen - Conservation Warden

Approved by Natural Resources Board

1-23-85
Date

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SECTION I - ACTIONS

GOALS, OBJECTIVES AND ADDITIONAL BENEFITS

Goals

To manage, preserve, and protect designated property within the boundary of the Cherokee Marsh Fishery Area in Dane County, to cooperate with local agencies in preserving the larger Cherokee Marsh open space area, to enhance sport fishing, hunting, and other recreational activities while perpetuating or restoring the scenic and aesthetic qualities of the Yahara River and Lake Mendota.

Annual Objectives

1. Provide opportunities for 450 angler days of fishing for northern pike, crappies, bullheads, and channel catfish.
2. Provide 2,950 participant days of hunting for white-tailed deer, pheasant, rabbits, and waterfowl and trapping for muskrats, raccoon, and mink.
3. Provide habitat protection that will allow 150 pair of northern pike and other warmwater species, i.e., crappies, walleye, channel catfish, and bluegills adequate opportunities to spawn.

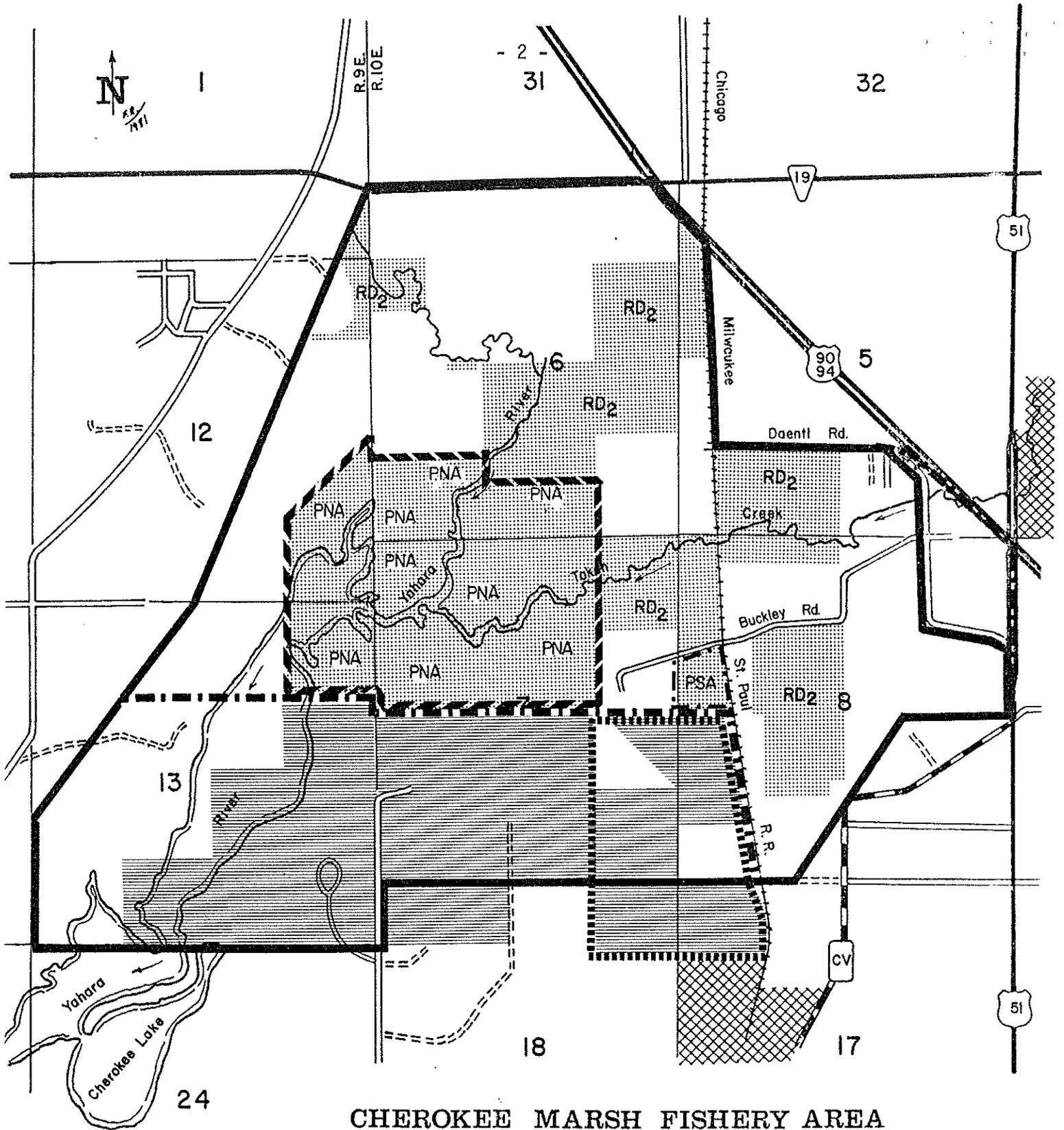
Annual Additional Benefits

1. Provide 1,470 days of other recreational and educational activities including berry picking, skiing, nature hiking, bird watching, and photography.
2. Contribute to the habitat of resident or migratory endangered and threatened species.
3. Benefit nongame species indigenous to the area.

RECOMMENDED MANAGEMENT AND DEVELOPMENT PROGRAM

The recommended management program for the Cherokee Marsh Fishery Area, Dane County (Figure 2) will be continuing emphasis on preserving the aesthetics of the area, protecting the spawning grounds for northern pike and other sport fish species indigenous to the Yahara River and especially Lake Mendota. Cherokee Marsh is the last remaining northern pike spawning area directly connected with Lake Mendota. Public ownership will reduce the opportunities for further private development.

Acquisition by the state (Figure 2) is currently 84.8 percent complete with 870.65 acres acquired in fee title compared to the approved acreage goal of 1,027 acres. The task force recommends that approval be granted to increase the acreage goal by 700 acres. If approved, acquisition would be 50.4 percent of the new 1,727 acre goal. All future acquisition will continue to be from willing sellers. The additional acreage will provide excellent protection to the remainder of the marsh within the fishery area boundary.



CHEROKEE MARSH FISHERY AREA

Scale 0 2011 Feet

(T.8N-R.9-10E.
Wauakee & Deforest
Quadrangle Maps.)

Figure 2. Property Ownership and Land Use Classification Map.

LEGEND

- | | |
|----------------------------------|---|
| Proposed Property Boundary-----■ | Approved Property Boundary----- |
| State Land----- | Fish & Wildlife Mgt. Area-----RD ₂ |
| County Land----- | Scientific Area Boundary----- |
| City of Madison Land----- | Proposed Scientific Area----- (PSA) |
| Private Land----- | Proposed Public Use Natural Area----- (PNA) |

The acquisition of approximately 780 acres involving parcels in 6 sections would block in proposed DNR acquisitions. Substantial acreages of lands owned by the City of Madison and Dane County also are adjacent to the fishery area. DNR management as proposed will be compatible with the other units of government involved. We recommend that the Cherokee Marsh Plan jointly adopted in 1981 by the City of Madison, Dane County, the DNR and townships of Burke, Westport, and Windsor will be incorporated into the master plan for the fishery area.

Maintenance of upland grass cover for duck and pheasant nesting will be performed by the use of herbicides, mechanical means or prescribed burning. A food patch of corn/sorghum should be established to provide winter food resources. Pheasant stocking early in the season will continue to supplement the wild cock population and meet the demand for pheasant hunting.

No major development is planned. The property is open to fishing, hunting, trapping, and other suitable outdoor activities. Posting, litter pickup, and maintaining parking lots require the most attention. Sharecropping for corn and hay production was in effect for a few years, and some wildlife food was provided by leaving a few rows of corn. The demand for hunting far exceeds the demand for fishing on the area. The feasibility of constructing another parking lot (Figure 3) will be considered.

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

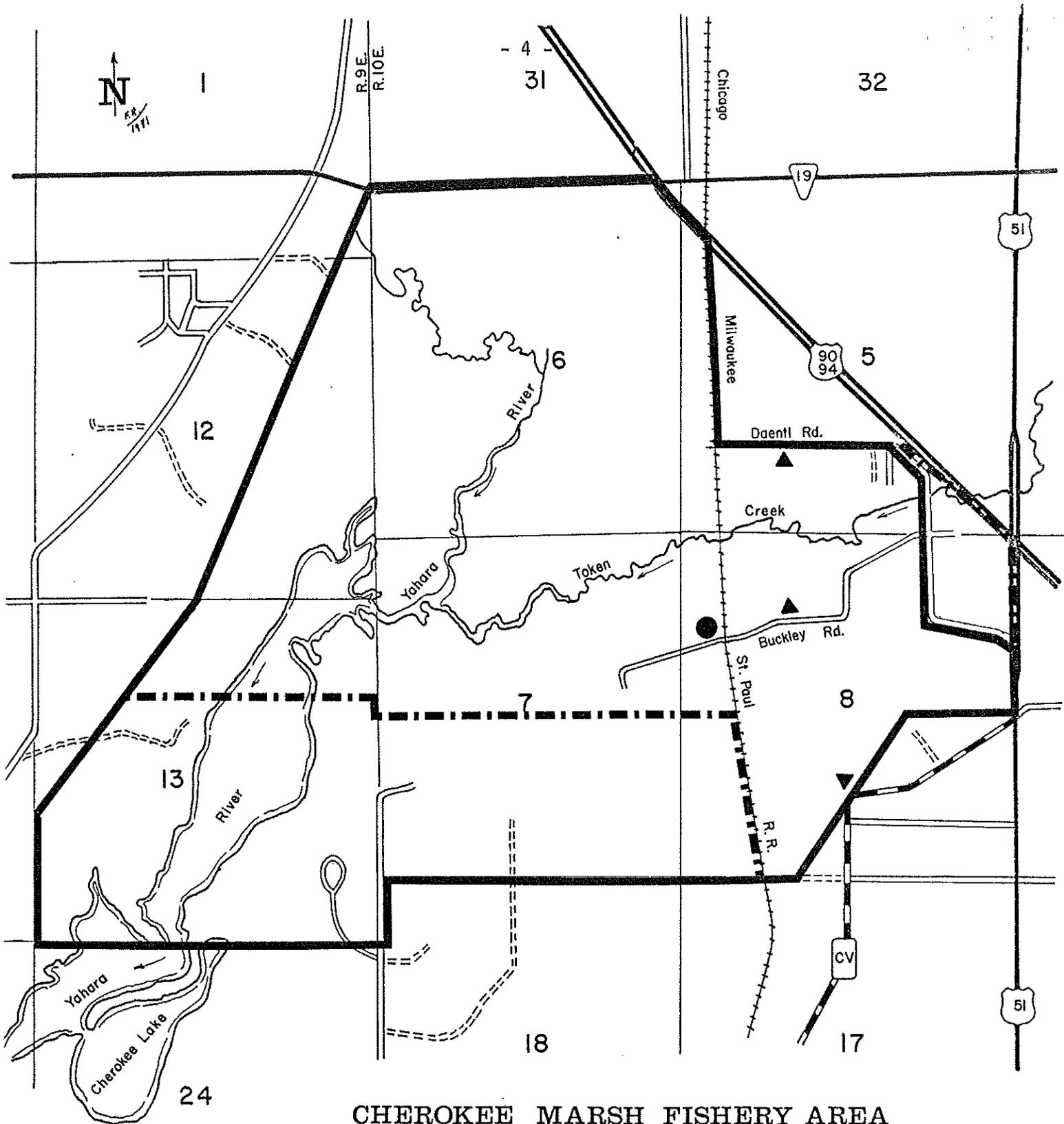
A complete biological inventory of the property will be conducted as funds permit. Additional property objectives may be developed following completion of such an inventory.

SECTION II - SUPPORT DATA

BACKGROUND INFORMATION

The Cherokee Marsh Fishery Area is located in south central Wisconsin, north of Madison (Figure 1) on the Yahara River-Token Creek watershed. Most native warmwater fish species are present in the fishery area while trout and a variety of forage fish inhabit the upper spring-fed reaches of these streams. Many fish species inhabiting Lake Mendota utilize the marsh during the various spawning periods. In addition to supporting a variety of animal and plant species, Cherokee Marsh serves a vital role in recycling nutrients and filtering sediments before they reach Lake Mendota.

Interest in the preservation of Cherokee Marsh began in the late 1950's. In the early 60's, development of private residential and recreational areas began on uplands and adjacent wetlands in the southern part of the marsh. Whether the marsh area would be preserved and who would preserve it were the major state and local issues of those years. In 1964, legal issues were resolved, some development was allowed, and the City and State began acquiring land. Dane County also acquired some lands and the project proceeded at a multi-purpose inter-governmental effort.



(T.8N-R.9-10E.
Waunakee & Deforest
Quadrangle Maps.)

CHEROKEE MARSH FISHERY AREA

Scale 0 2011 Feet

Figure 3. Existing and Planned Development Map.

LEGEND

- Proposed Property Boundary - - - - -
- Existing Public Access - - - - - ▲
- Existing Parking Area - - - - - ●
- Approved Property Boundary - - - - -

In 1977, a project to coordinate preservation efforts at the local level was initiated. A Cherokee Marsh Advisory Committee was appointed with representatives from the DNR, Dane County, City of Madison, and the Towns of Burke, Westport, and Windsor. After several public hearings, all the local agencies adopted a long-range open space plan in 1981. The plan proposed a total open space acreage of approximately 6,200 acres, and identified areas of responsibility for each agency. The areas of DNR responsibility were the State Park area, of approximately 450 acres, and the Fishery Area, totalling approximately 1,700 acres. The Fishery Area consists of marsh and wetlands with lesser amounts of upland, cropland, and pasture of which a little over half has been purchased. About 3.5 miles of the Yahara River and 3.0 miles of Token Creek flow through the state-owned land.

The basic fish management plan for the Cherokee Marsh Fishery Area to date has included periodic fish population surveys in the spring during the northern pike spawning run. Rough fish control was conducted annually prior to 1970. Most of the effort for both activities was confined to the widespread downstream from the state-controlled land. Hunting and trapping are permitted and pressure is fairly heavy for white-tailed deer, waterfowl, pheasants, muskrats, and rabbits. Hunting plus other outdoor activities create the need for posting, litter removal, and maintaining parking lots.

RESOURCE CAPABILITIES AND INVENTORY

The boundaries of the fishery area (Figure 2) extend to Highway 19 on the north and include within it, all, or portions of Sections, 5, 6, 7, 8, 12, and 13 in the townships of Burke and Westport. That portion of the Yahara River-Token Creek complex that flows through the marsh supports a varied warmwater sport fishery. Additional fish move upstream from Lake Mendota during the spring spawning season; the most notable species being northern pike.

A very low stream gradient and constriction of flow at the Highway 113 bridge downstream from the South Boundary of the fishery area has caused the Yahara River to be generally wide and shallow. Agricultural and municipal runoff, plus a predominantly clay-silt-muck bottom and large numbers of carp contribute to frequent periods of turbidity.

The Yahara River watershed, which has its source in Columbia County two miles northeast of DeForest, is surrounded by corn growing dominated farm units and residential dwellings. The soils are muck and clay-silt, and vary from poorly drained in the lowlands to moderately drained in higher terrain. The relief of the watershed is moderate with the highest elevation at about 1,075 feet above sea level in the northeast, and at lowest about 850 feet in the southwest adjacent to the Yahara River. Willow, red osier, cattails, sedges, and reed canary grass are the dominant plant species in the floodplain. Hardwood trees, berry bushes, and forbs grow in the few better drained sites (Figure 4).

Soils, Geology, and Hydrology

The predominant soil in the Cherokee Marsh is peat, designated Houghton muck. It attains a maximum thickness of over 30 feet adjacent to the Yahara River. Elvers silt loam is another common soil type. Batavia, Otter, Kingwood, and Virgil silt loams are present in lesser amounts. Some of the better drained soils (silt loams) are agriculturally productive.

Cherokee Marsh is comprised primarily of marsh deposits, except for the outlying terrain which is undifferentiated with glacial deposits, mainly ground moraine. The bedrock is composed of flat-lying sediments of marine origin, of lower Paleozoic age sandstone and smaller amounts of dolomite and shale from the Dresbach Group. Prairie du Chien dolomite is more prevalent away from the floodplain.

When glacial ice left the area about 13,000 years ago, the lake level of Mendota was several feet higher than at the present. Lake Mendota extended up the Yahara Valley and the present Cherokee Marsh was an extension of the lake. Eventually, the channel of the Yahara became choked with sediment, and vegetation began to encroach over the shallows, creating a thick layer of peat and forming the marshes as we now see them.

Token Creek with 19 square miles of drainage area has considerably more runoff than the Yahara River which has a drainage basin of about 60 square miles. Runoff from this portion of the Yahara River basin is about 23 percent of the precipitation. The soil has a high retention rate, and therefore, much of the precipitation enters the ground and becomes groundwater underflow, which later appears as stream flow.

Sedimentation is greatly influenced by land use and the surface area of soil that remains unvegetated in the watershed. The problem does not appear to be serious at the present time, but continued new housing developments would accentuate the problem.

The area of potential groundwater recharge closely coincides with the area of the drainage basin of the Yahara River north of Lake Mendota. Cambrian sandstone and Pleistocene deposits of sand and gravel are the principle aquifers. Water levels in the Cherokee Marsh fluctuate in response to seasonal changes in precipitation and to changes in the stage of Lake Mendota.

Fish and Wildlife

Fish species found in the Cherokee Marsh Fishery Area are northern pike, walleyes, black and white crappies, largemouth bass, channel catfish, bluegills, white bass, yellow perch, white suckers, carp, buffalo, bowfins and black, brown and yellow bullheads. Forage species that were captured in a shocker survey two miles upstream in the Yahara River were redbelly dace, creek chubs, Johnny darters, central stone rollers, mottled sculpins, common shiners, barred fantail darters, mud minnows, brook sticklebacks, and bluntnose minnows. Some of these species inhabit the Yahara River downstream. Most of the same species live in the lower portions of Token Creek, while brown and brook trout live in the headwaters of that stream.

The setting of traps and fyke nets for fish studies in Cherokee Marsh began during the spring spawning run in 1951 and continued periodically until 1977. Large numbers of northern pike have been sampled along with crappies, yellow perch, bullheads, and bluegills. Walleye numbers have shown an increase during the late 60's and 70's. The importance of the Cherokee Marsh as the largest spawning marsh for Lake Mendota fish was one of the prime reasons the project was created. Most of the fish species naturally reproduce in the Cherokee Marsh complex.

Wildlife species that inhabit the area are native to southern Wisconsin and areas of similar habitat. The major game species are white-tailed deer, cottontails, fox and gray squirrels, muskrats, mink, raccoons, gray and red foxes, mallards, wood ducks, blue-winged teal, woodcocks, and pheasants. Pheasant stocking has occurred in the past to supplement the wild populations. Spring and autumn migrations of waterfowl bring a variety of waterfowl to the area for a short period. Twenty species have been identified. Other major nongame forms of wildlife found within the fishery area include short-eared owls, and marsh hawks and sandhill cranes, both of which have nested in the marsh.

Vegetative Cover

A variety of vegetative cover types identified on Table 1 and shown generally on Figure 4 are present in the project. Of the aquatic plants found in the marsh, eleven were identified as emergent, e.g., bulrush, cattails, reed canary grass, sedges, sweet flag, reed grass, arrowhead, and rice cutgrass. Three were floating, including duckweed, smartweed, and yellow water lilies. Only coontail is submergent.

Woody plants found on the fishery area include red osiers, willows, oaks, aspens, silver maples and elms.

TABLE 1. Vegetation types and their acreages on the Cherokee Marsh Fishery Area, Dane County

<u>Vegetation Type</u>	<u>Acreage</u>
Wetlands	253
Noncommercial Herbaceous	195
Grasses	87
Former Cropland	30
Red Dogwood	92
Willows	38
Bottomland Hardwoods	17
Oak	23
Aspen	37
Upland Brush	12
Lake	84
Parking Lots	<u>3</u>
<u>Total</u>	<u>871</u>

Endangered and Threatened Species

Records of a number of endangered and threatened species have been documented on the fishery area. They include the endangered tussock bulrush, Scirpus cespitosus, and the cricket frog. Threatened species known to exist there include the Blanding's turtle, Coopers hawk, and white lady's slipper. All necessary care required to protect and perpetuate those species will be given.

Water Resources

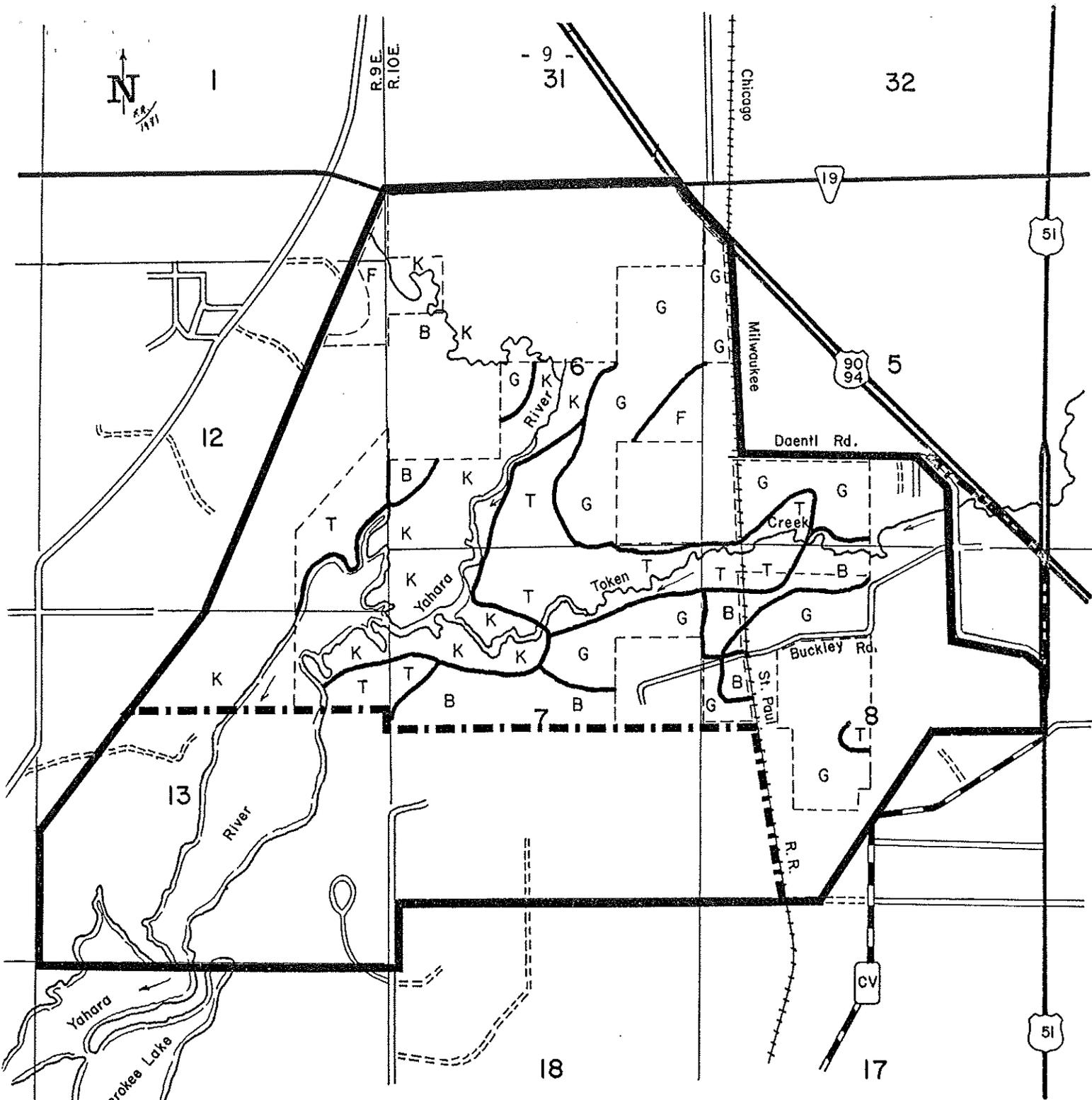
The Yahara River is the primary stream that flows through the Cherokee Marsh. It originates in Columbia County about 2 miles northeast of DeForest. The river at this point drains approximately 60 square miles of agricultural, wetland, and municipal types of land cover. Token Creek, which drains 19 square miles, starts in Section 36, Township 9 North, Range 10 East. Numerous large springs and spring tributaries provide an excellent supply of high quality water in the vicinity of the Village of Token Creek. Outflows from a millpond, a private trout hatchery, and the DNR trout rearing and fishing pond enter the stream. The character of the stream changes as it flows past the former carp holding pond and through the Token Creek County Park to where it becomes a slower-moving, wider waterway as it enters Cherokee Marsh. Portions of both streams contain gravel-rubble substrate, but clay-silt and muck characterize the stream bottom in the marsh. Most of the streambanks are stable with grass, trees, and brush providing support. The presence of undercuts and aquatic vegetation provide instream cover for fish and other aquatic life.

TABLE 2. Water areas within the boundary of Cherokee Marsh Fishery Area, Dane County.

Name	Type of Water	County	Length in Miles	Acres	Maximum Depth
Yahara River	Warmwater System	Dane	3.5	34.0	4.0 ft.
Token Creek	Warmwater System	Dane	3.0	13.7	4.0 ft.
Olson Pond	Warmwater System	Dane	-	1.0	7.0 ft.
Totals			6.5	48.7	

Historical and Archaeological Features

While no detailed archaeological, architectural or historical surveys have been accomplished to date, three prehistoric archaeological sites, with 2 burial mounds at one location and 2 separate campsites have been identified within the boundary of the fishery area. Their precise locations will be listed in the files of the State Historical Society, and of the DNR Madison office. The remainder of the fishery area, and particularly along the marsh edge is thought to have much potential for archaeological artifacts. Accordingly, prior to any movement of soils or structures, the State Historical Society will be consulted for advice.



CHEROKEE MARSH FISHERY AREA

(T.8N-R.9-10E.
Waunakee & Deforest
Quadrangle Maps.)

Scale Feet
0 2011

Figure 4. General Cover Map.

LEGEND

Approved Property Boundary --- ---

- Proposed Property Boundary --- ---
- Timber --- --- T
- Brush --- --- B
- Marsh --- --- K
- Grassland --- --- G
- Farmland --- --- F
- Warm Water Stream --- --- Entire Stream Area
- State Land Boundary --- ---

Ownership

The state owns 870.65 acres by fee title within the boundary. The City of Madison and Dane County own about 1,800 acres adjacent to or near the state property along the Yahara River and Token Creek.

Current Use

Hunting for waterfowl, pheasant, white-tailed deer, and cottontails attracts numerous hunters during the autumn and winter. Fishing, although not documented, is believed to be generally light. Trapping, nature hikes, cross country skiing, and photography receive a fair amount of interest.

Land Use Classification

The land and water areas within the Cherokee Marsh provide both resource protection and limited resource development, benefiting aquatic and terrestrial life. The property is classified as Public Use Natural Area (PNA), Fisheries and Wildlife Management Area (RD₂) and Proposed Scientific Area (PSA) as shown on Figure 2.

The Bureau of Endangered Resources has identified a 400-acre portion of Cherokee Marsh as a natural area of statewide significance and the Scientific Areas Council has designated 185 acres of the city-owned portion as the Cherokee Marsh Scientific Area No. 130. The proposed addition of 20 acres to the scientific area is within the boundary and adjacent to the existing scientific area. The proposed addition contains high quality sedge meadow, low prairie, and fen communities, as well as rare plants such as the white lady's slipper orchid and tussock bulrush.

A natural area of regional significance has also been identified by the Bureau of Endangered Resources in Cherokee Marsh. This 430-acre site within the boundary classified as Public Use Natural Area contains a variety of wetland communities ranging from tamarack swamp to sedge meadow.

MANAGEMENT PROBLEMS

Increasing Public Encroachment

The proximity of the Cherokee Marsh to large population centers subjects the area to high use for a variety of recreational pursuits. Any increase in development of housing projects on the periphery of the marsh would reduce the aesthetics and resource productivity of the public-owned sector. All-terrain and four wheel drive vehicles utilizing the drier portions of the fishery area are other potential problems. A combination of posting, installing gates, and a berm to discourage ORV misuse is recommended.

Littering and Sign Damage

Littering and damage to signs require constant maintenance. Indiscriminate target shooting destroys more signs than any other activity. The parking lot at Buckley Road was gravelled and berms were constructed as a means of restricting parking to that area. Littering and target shooting problems have thus been reduced. If users are able to park only in a highly visible parking lot, night parties and other undesirable activities might decrease.

Nonpoint Pollution

Nonpoint source pollution from upstream farms, roads, and municipalities occurs and is difficult to control. The water quality of the entire Yahara River system is adversely impacted by nonpoint runoff.

Providing Services

There are some complaints from local town boards about providing services, e.g., suppressing fires, ambulance service, and general surveillance of the area. Eventually, allowing hunting so close to a large city may have to be discontinued near developed areas for safety reasons, although no hunting related problems have been noted as yet.

RECREATION NEEDS AND JUSTIFICATIONS

According to the Wisconsin Outdoor Recreation Plan of 1977, the Cherokee Marsh Fishery Area is in Recreational Region 2 which consists of the counties of Columbia, Dane, Dodge, Jefferson and Rock. Combined, they had a population of 647,086 or 13.8 percent of the State's population in 1980. The region is highly urbanized with 67 percent of the population in urban areas.

The 1977 plan indicates the need for fishing in the region as follows:

"The problem of accommodating increased fishing participation can be solved by improving and increasing public access to the fishery (e.g. boat launching sites, improved transportation systems), by improving water quality and by improved and intensified fishery management techniques. To minimize the disparity between the supply of and the demand for quality surface water resources in this region, governmental agencies must be committed to preserving lake and river frontage wherever it is available."

ANALYSIS OF ALTERNATIVES

Do Nothing

Private development is likely to occur on parcels not under public ownership. The type of development could be incompatible with our plans to preserve the marsh as a buffer for Lake Mendota and of the Cherokee Marsh Master Plan. The tranquility and aesthetics of Cherokee Marsh will also diminish. Fragile

plant and animal species will be the first to respond adversely to encroachment by development. Failure to continue acquisition beyond the 156 acres remaining may jeopardize the cooperative efforts of local agencies to preserve the marsh.

Enlarge the Fishery Area (Recommended Alternative)

We are recommending that the acreage goal be increased to 1,727 acres. The added 700 acres are required to preserve the upper wetland complex that is so vital in maintaining good water quality in the Yahara River and Lake Mendota. Those critical acres are located in the following townships and sections:

<u>Town of Burke</u>	<u>Acres</u>	<u>Town of Westport</u>	<u>Acres</u>
Section 5	18	Section 12	79
Section 6	376	Section 13	100
Section 7	40	Total	<u>179</u>
Section 8	152	Grand Total	765
Total	<u>586</u>		

We also recommend that the 1981 long-range plan be adopted as a guideline to cooperative preservation efforts in Cherokee Marsh. Continued acquisition will be necessary for this fishery area to meet the goals established by the DNR and to protect past public investments in preservation of the marsh.

Reduce the Size of the Fishery Area

Not recommended. The goals and objectives of this master plan, and of the 1981 long-range plan would not be met. Opportunities to buy from willing sellers might also be missed, increasing the potential for private development and controversies over state and local regulatory controls.

Appendix - Comments by outside reviewing agencies, and responses, where necessary, by DNR personnel.

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

We have reviewed the Master Plan for the Cherokee Marsh Fishery Area in Dane County and offer the following comments:

1. Improvements to State Trunk Highway (STH) 19 may be needed in the future. We have acquired a restrictive development easement along the south side of STH 19. In the future we may need to acquire this land as right of way to accommodate two additional lanes for STH 19. We recommend that you coordinate all acquisitions that may abut this easement or STH 19 right of way with:

W. T. Wambach, Director
Division of Transportation Districts
1317 Applegate Road
Madison, WI 53713
(608) 266-1111

DNR response: Agreed.

2. We believe the location of the Yahara River may be misplaced on Figures 2 through 4 in Sections 6 and 31.
3. On Figure 2, USH 151 should be changed to USH 51 as shown on Figures 3 and 4.

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

DNR response: Agreed, and corrections have been made.

Mr. G. E. Heggsta, Wisconsin Conservation Congress, Dane County, Madison, WI.

Overall view: Excellent.

The master plan is an excellent one and is very badly needed. It is important that it be implemented as soon as possible before any additional environmental damage is done. The plan falls short in the amount of land that is planned to be acquired. I am aware that this is due to budget problems, but hopefully in the future additional critical lands will be acquired.

DNR response: Seven hundred (700) additional acres were allotted from statewide projects to the Cherokee Marsh Fishery Area.

Mr. Danny Jones, Chairman, Town of Burke, Dane County, Madison, WI.

This letter is in reference to the Cherokee Marsh Fishery Area Master Plan.

The Town of Burke, in concurrence with the Dane County Park Commission, has gone on record to support the Cherokee Marsh Fishery Area Master Plan based on the Commission's recommendations:

1. That the Cherokee Marsh Long Range Open Space Plan adopted in 1981 by the State, County, City, Town of Westport and Town of Burke be incorporated into the Fishery Area Master Plan.

DNR response: The latest version of the Cherokee Marsh F. A. Master Plan includes this request.

2. That the acreage goal be increased from the current acreage goal of 1027 acres to 1700 acres.

This is in reference to correspondence numbered 2100. Thank you for your attention in this matter.

DNR response: The acreage goal was increased to 1727 acres.

Mr. Forest Stearns, Chairman, Scientific Areas Preservation Council.

We have several suggestions for improvement of the Cherokee Marsh Fishery Area concept master plan. The project area is a very important wetland area of more than 2,000 acres which serves a vital role in protecting Lake Mendota. The City of Madison, Dane County and the Department initiated acquisition jointly in the 1960's to protect the entire watershed area. In September 1981 a Cherokee Marsh Long Range Open Space Plan was prepared with participation of the affected units of government. This plan recommended that an additional 2,700 acres be protected in coming decades to preserve Cherokee Marsh.

Cherokee Marsh Fishery Area is a vital part of this total protection effort. Yet the plan for the fishery area recommends a reduction in the modest acreage goal from 1,027 to 945 acres and transfer of acreage goal to other projects. The goal of protecting Cherokee Marsh will not be achieved by reducing the Department's commitment.

Since this wetland complex has multiple resource values including a 400 acre natural area of state significance (130 acres designated as State Scientific Area), and other natural area of regional significance, we urge that this acreage goal be increased to protect the wetlands within the project boundary. Since some acreage within the large project area has already been protected by the City of Madison and Dane County, a review of commitments and respective boundaries by each group to meet long range protection goals and maximize watershed protection seems logical.

An increase in the Fishery Area's acreage goal is justified since the wetland is the largest remaining in Dane County. It furnishes important resource benefits in addition to the fishery value and is threatened by development. Perhaps other Department bureaus could contribute to the goal. Thank you for providing opportunity to comment.

DNR response: The DNR's new acreage goal is 1,727 acres. The additional 1,300 acres will have to be acquired by the City of Madison or Dane County.

Mr. William A. Flader, M.D., Madison, WI.

I realize that this is a marsh master plan and not a Token Creek plan, but the past and present cold water potential of Token Creek should not be ignored. I understand that this was once utilized as a trout fishing resource much more than it is now, one of the problems being friction between private landowners and fishermen. While land use practices in the watershed in recent years have probably done nothing to enhance the water quality, this is one of the very few potential trout resources in eastern Dane County, with virtually none in Jefferson County.

I have wondered for several years whether this stream could be rehabilitated thru obtaining public easements, erosion control, and fencing and instream work of the type that Trout Unlimited would be happy to participate in. Obviously, I refer to the area upstream from present plan boundaries.

I hope these comments help to stimulate some discussion of the potential of Token Creek as a trout fishing resource.

DNR response: The DNR has long recognized that the upper part of Token Creek has potential as a managed trout resource. No management of the stream proper is possible now because of lack of public access. Opportunities to acquire stream frontage are not good at the present time. A residential population of brown and brook trout inhabit selected reaches of the stream.

Mr. Charles Montemayor, Executive Director, Dane County Regional Planning Commission, Madison, WI.

We have reviewed the draft of the Cherokee Marsh Fishery Area Master Plan and find it to be a useful document in the effort to conserve the marsh. However, we agree with the City of Madison Park Commission that the revised acreage goal is inadequate. If the Cherokee Marsh Plan adopted by the City of Madison, Dane County, the Dane County Regional Planning Commission and the Towns of Burke, Westport, and Windsor is to be implemented, a goal of 1,700 acres would be more realistic than the proposed 945.79 acre goal.

DNR response: Taken care of.

We further recommend that the adopted Cherokee Marsh Plan be incorporated into the Master Plan for the fishery area and that the areas to be acquired be more clearly delineated.

DNR response: Agreed.

The Master Plan proposed uses for the area which might conflict, e.g. hunting and bird watching, therefore it would be helpful if ways of minimizing or avoiding such conflicts were discussed in the plan.

We appreciate the opportunity of commenting on the draft Master Plan for the Fishery Area.

DNR response: This item is inherent in many public use areas and will be discussed in more detail in the Implemental phase of the Master Plan.

Dane County Park Commission, Madison, WI.

The Dane County Park Commission at it's February 15, 1984, meeting has gone on record of support for the Cherokee Marsh Fishery Area Master Plan based on the following recommendations:

1. That the Cherokee Marsh Long Range Open Space Plan adopted in 1981 by the State, County, City, Town of Westport and Town of Burke be incorporated into the Fishery Area Master Plan.
2. That the acreage goal be increased from the current acreage goal of 1027 acres to 1700 acres. The acquisition of this additional acreage would provide a very valuable buffer between the wetlands and the Cherokee Marsh and future development.

These comments are submitted in reference to correspondence number 2100. Thank you for giving the Dane County Park Commission an opportunity to respond in this important matter.

DNR response: Agreed.

Mr. Daniel R. Stapay, Superintendent of Parks, City of Madison, WI.

The Madison Parks Commission has recently reviewed the proposed plan and feels that it is inadequate in several respects. It does not recognize local preservation plans and does not propose an acreage goal sufficient to meet either your stated objectives or those specified in local plans. It seems to back away from commitments that the DNR has made to this project over the past two decades. We have attached a letter which is being sent to Mr. Besadny explaining our position.

We also offer the following specific recommendations, which we believe would make the plan acceptable to the City, County, and Towns which have actively supported the preservation of Cherokee Marsh. Proposed changes are underlined.

p. 1., Goals, Line 2:

...The Cherokee Marsh Fishery Area in Dane County, to cooperate with local agencies to preserve the larger Cherokee Marsh Open Space Area, to enhance sport fishing,...

DNR response: Taken care of.

p. 1., 5th line from bottom, revise to:

...1,027 acres. The task force recommends that approval be granted to increase the acreage goal by 674 acres. If approved, acquisition would be 48.7 of the new 1,700 acreage goal. All future acquisition would continue to be from willing sellers. Other public agencies currently

control 2,670 acres of adjacent land within the Yahara River-Token Creek corridor (including 430 acres in Governor Nelson State Park), and propose to protect a total of 4,500 acres in addition to the proposed DNR goal of 1,700 acres.

DNR response: Covered elsewhere. DNR did not include Governor Nelson State Park in the Cherokee Marsh F.A. boundary. It is disconnected and too far removed.

p 2., See corrections and proposed project boundary changes on the attached map. We would recommend a more complete acquisition within a smaller project boundary.

DNR response: Map corrections as proposed have been made. The increased acreage goal will permit the DNR to acquire most of the land within the project boundary if there are enough willing sellers.

p. 3., first paragraph, substitute the following:

Increasing the acreage goal to 1,700 acres would allow for eventual acquisition of all lands in the northern part of the marsh which are specified in the locally adopted long-range plan for preservation. This land includes Yahara River frontage, wetlands, and an upland buffer strip at the wetland edge. DNR acquisition and management as proposed will be compatible with other units of government involved.

DNR response: Agreed.

p. 3., last paragraph, substitute the following:

Interest in the preservation of Cherokee Marsh began in the late 1950's. In the early 60's development of private residential and recreational areas began on uplands and adjacent wetlands in the southern part of the marsh. Whether the marsh area would be preserved and who would preserve it were major state and local issues of those years. In 1964, legal issues were resolved, some development was allowed, and the City and State began acquiring land. Dane County also acquired some lands and the project proceeded as a multi-purpose intergovernmental effort.

In 1977, a project to coordinate preservation efforts at the local level was initiated. A Cherokee Marsh Advisory Committee was appointed with representatives from the DNR, Dane County, City of Madison, and the Towns of Westport, Windsor, and Burke. After several public hearings, all the local agencies adopted a long-range open space plan in 1981. The plan proposed a total open space acreage of approximately 6,200 acres, and identified areas of responsibility for each agency. The areas of DNR responsibility were the State Park area, of approximately 450 acres, and the Fishery Area, totalling approximately 1,700 acres. The area consists of marsh and wetlands with lesser amounts of upland, cropland and pasture, about half of which has been purchased. Approximately 3.5 miles of the Yahara River and 3.0 miles of Token Creek flow through the state-owned land.

DNR response: The intent and acreage goal of the DNR Cherokee Marsh Fishery Area is compatible with the guidelines of the Cherokee Marsh Advisory Committee of which two DNR personnel were members.

p. 9., Ownership

The State owns 827.99 acres by fee title within the boundary. The City of Madison and Dane County own about 1,800 acres adjacent to or near the State property, along the Yahara River and Token Creek.

DNR response: The State owns 870.65 acres now.

p. 10., Land Use Classification, 2nd paragraph:

The Bureau of Research's Scientific Areas Group has designated about 370 acres in the Cherokee Marsh as a potential scientific area. Most of the acreage is currently owned by the City of Madison and Dane County, plus three (3) private parcels totalling 80 acres, all in the Town of Burke....

DNR response: Agreed.

p. 11., Analysis of Alternatives, substitute the following:

Do Nothing

Because of the close proximity to an urban area and potential sewer availability, private development is likely on parcels not under public ownership. Most types of development would be incompatible with preserving the marsh as a buffer for Lake Mendota. The tranquility and aesthetics of the marsh would diminish. Fragile plant and animal species would be the first to respond adversely to encroachment by development. Hunting may have to be limited if development encroaches. Failure to continue acquisitions beyond the 281 acres remaining may jeopardize the cooperative efforts of local agencies to preserve the marsh.

Reduce the Size of the Fishery Area

To reduce the size or acreage goal would have all of the above impacts, only sooner. Opportunities to buy from willing sellers may be missed, increasing the potential for private development and controversies over state and local regulatory controls.

Enlarge the Fishery Area

We are recommending that the acreage goal be increased from 1,027 acres to 1,700 acres. This will allow for continued acquisition as lands are available to protect the remaining stream frontage, wetlands and upland buffers as adopted by local agencies. We also recommend that the 1981 long-range plan be adopted as a guideline to cooperative preservation efforts in Cherokee Marsh. Continued acquisition will be necessary for this project to meet the goals established by the DNR and to protect past public investments in Cherokee Marsh preservation.

DNR response: The alternative to enlarge the fishery area was selected.

Libby Lewis, Dane County Parks Commission, Madison, WI.

Overall View: Excellent. Location maps very helpful.

In general, I endorse the request of the Dane County Parks Commission and the Madison Parks Commission to increase the acreage goal for acquisition to 1,700 acres in the location indicated in the Cherokee Marsh Plan, revised, September, 1981.

p. 1., goals: In addition to scenic and aesthetic qualities, maximizing water quality should be included - keeping topsoil on the land and out of the water and preventing and reducing pollutants and nutrients.

DNR response: Some of these items extend upstream beyond the Fishery Area boundary, but are essential for preserving a quality environment.

I am concerned about the comments that were made concerning Token Creek and would urge any correspondence or comments be forwarded to the Dane County Parks Commission. We are concerned about the farming practices in park lands and of course require funds to carry out the overall plans for these lands. Conservation plans are to be carried out on the lands that are to be farmed, and I hope that farming will be phased out as soon as possible.

DNR response: Most of these conditions are beyond the control of the DNR and other agencies.

I am also interested in the archeological sites, especially as they relate to Lake Farms Park where extensive sampling has taken place.

The descriptive material in the plan is very helpful to me as well as the meeting.

DNR response: The material is provided by the State Historical Society.

Stanley A. Nichols, Wisconsin Geological and Natural History Survey, Madison, WI.

Page 1, par. 1 under Recommended Management. - Is there no remaining northern pike spawning in Six Mile or Pheasant Branch Creeks?

DNR response: Northern pike reproduction has been poor in Lake Mendota in recent years. Reproduction success is dependent on several factors like quality of the spawning habitat, water levels, weather during spawning and the number of brood fish. Suspect spawning habitat has deteriorated in Six Mile and Pheasant Branch Creeks with increased development.

Fig. 2 - Does this figure show all of the city land in the area or just within the management area boundary. There may be more city land south of that shown on the map.

DNR response: Yes, within the boundary.

Page 3, par. 2 - It is doubtful that the demand for pheasant hunting is met even with stocking.

DNR response: Agreed.

Page 5, par. 5 - There is probably 5 to 6 feet of developed peat in this region which may lie over 15+ feet of sedimentary peat.

DNR response: Information acknowledged.

Page 7, par. 2 - Why does the smaller basin have more runoff? Last sentence might read better as follows "...becomes groundwater which later appears as stream flow.

DNR response: Probably because there are less wetlands to absorb excess surface water. Correction made.

Page 7, par. 4, line 1 - insert potential before groundwater recharge.

DNR response: Corrected.

Page 10, par. 3 - bullrush should be spelled as bulrush. Also, this statement does not coincide with the statement on page 8 which says there are no endangered or threatened species in the area.

DNR response: Corrected all items mentioned.

Page 11, par. 1 - There should be aggressive recommendations made to continue to allow hunting in the area. The wildlife area was established before the urban sprawl problem. Therefore people developed the area with full knowledge of any potential danger.

DNR response: Adequately addressed.

Remarks of Wild Resources Advisory Council.

These comments reflect the attitude of the Council toward the plan.

1. Even though the property contains no wild resources values, it does serve to buffer a potential scientific area on adjacent public land. We submit the buffering lands should have special recognition for use and management (Page 10).

DNR response: The last version of the Master Plan discusses these suggestions more.

2. The presence of elements of low prairie, fen meadow and quality marsh would seem to the Council to necessitate some form of special conserving treatment (Page 10).

DNR response: Covered by Figure 2 and the 3 first paragraphs on page 10.

3. Have cooperative management plans been considered between the city, county and state? It appears that it would be highly beneficial to do so.

DNR response: The Cherokee Marsh Advisory Committee which included two DNR people emphasized cooperative management of the three areas mentioned. There has always been interchange of ideas and plans among this group.

4. Does the city and county permit hunting on their lands? It seems prudent for these owners and DNR to act in concern on either allowing or prohibiting this activity.

DNR response: No hunting is allowed on city and county lands but is allowed on the DNR properties. No major problems have occurred on DNR lands as a result of this situation.

5. Does DNR feel the marsh is adequately protected by prevailing public ownership proposals?

DNR response: Yes - with the increased acreage goal of 1,727 acres plus City of Madison and Dane County lands.

CHEROKEE MARSH



REVISIED LONG RANGE OPEN SPACE PLAN

SEPTEMBER, 1981

LAKE MENDOTA

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INTRODUCTION

Cherokee Marsh is the largest remaining wetland in Dane County and the major wetland in Lake Mendota's watershed. The project to preserve Cherokee Marsh is not a new one. It was first suggested in the 1950's that the Marsh be preserved in public ownership. In the middle 1960's, after years of study and debate, the City of Madison and State of Wisconsin, purchased lands in the Marsh for preservation, recreation, and public hunting and fishing area. Since then, there have been additional City and State purchases for these purposes. Dane County has also established two new parks in the area -- Token Creek Park and Yahara Heights Park; and the State of Wisconsin has acquired land on the north shore of Lake Mendota for the Mendota State Park. Total public ownership in the Upper Yahara River corridor now exceeds 3,000 acres.

In 1977, the City of Madison Parks Commission initiated a process of trying to coordinate the various government agencies involved to develop a long-range open space plan for the Cherokee Marsh area. The intent was to plan the Lake Mendota-Upper Yahara corridor as one overall plan rather than several, and to ultimately link together the public lands into a major open space area.

Meetings from 1977 to 1980 which included the State, County, City, Town of Westport, and Town of Burke resulted in a proposed plan which was published in April 1980. Several public meetings were held in 1980 to explain the plan and hear public comments.

Following these hearings an inter-governmental Advisory Committee was established to review and revise the plan to meet the concerns of the affected citizens and governmental units involved. The Cherokee Marsh Advisory Committee includes representatives from the State, City of Madison, Dane County, the Towns of Westport, Windsor, and Burke, and the Dane County Regional Planning Commission. After a series of meetings, the Committee published a revised plan for public review in July 1981, and another public hearing was held. Based on the input received from concerned citizens, affected landowners, and the participating units of government, additional changes were made in the plan.

The following plan is the result of a cooperative effort by the Advisory Committee to meet the expressed concerns, and is recommended for adoption as a guideline for continued protection of Cherokee Marsh.

I. OBJECTIVES

This plan proposes continued preservation of the Cherokee Marsh to meet the following major objectives:

- A. To recognize and preserve the Cherokee Marsh as a vital ecological link in the land-water resource base of the City, County and region.
- B. To recognize and protect rare plant communities, animal populations, and historical sites in the Marsh area.
- C. To use the Cherokee Marsh area to meet educational, research, recreational, and open space needs of the City, County and region.
- D. To prevent urban encroachment into the Cherokee Marsh and to have it serve as a natural open space between the City of Madison and adjacent Towns.
- E. To protect and enhance the environmental quality of Cherokee Marsh so it can function effectively to protect water quality and provide wildlife habitat and recreation space.
- F. To encourage cooperation between governmental units in both the planning and implementation stages of the preservation process.
- G. To allow existing farm operations to continue.
- H. To provide a guide for land owners, developers, and governmental agencies regarding proposed land use in the Cherokee Marsh area.
- I. To concern ourselves not only for the present situation, but also for the future generations who will most appreciate and benefit from the preservation of Cherokee Marsh.

II. SITE ANALYSIS

A site analysis was done for a study area consisting of approximately 15 square miles. The study area forms a 10-mile corridor extending from Mendota State Park and Mendota Mental Health Institute on Lake Mendota; up the Yahara River to Lake Windsor; and up Token Creek to Token Creek Pond. Site characteristics studied included:

- A. Geology and Physiography -- The bedrock of the area is flat-lying sedimentary rock of marine origin. It is mostly sandstone with some dolomite and shale, and is underlain by crystalline precambrian rocks at a depth of 700-900 feet. The bedrock is overlain by glacial deposits from 0-300 feet thick.

Cherokee Marsh lies within the preglacial valley of the Yahara River. Prior to glaciation it was a steep-sided valley approximately 300 feet deep, similar to those in the unglaciated "Driftless Area" of southwestern Wisconsin. Glaciation filled the lower half of the valleys and dammed outlets, creating Lake Mendota and a shallow marshy lake in Cherokee Marsh. Dead vegetation accumulated in wet areas to form peat deposits. Erosion, siltation, and peat formation gradually leveled the irregular glacial drift on the valley floor.

River and stream courses were slowly re-established but the stream gradients are very low. Both the Yahara River and Token Creek are bordered by marshes up to their headwaters. Today Cherokee Marsh is characterized by steep side-slopes and broad flat marshes in the valley. The general slope of the marsh surface is toward the Yahara River, where elevations are about ten feet lower than at the east edge of the Marsh.

Several notable topographic features are found in the study area. Hilltops overlooking Lake Mendota are found in the Mendota State Park, Mendota Mental Health Institute grounds, and along Sauthoff Road.

An island of rolling upland in the center of the Marsh has already been mostly acquired by the City of Madison. High bedrock hills rise abruptly from the west bank of the Yahara River along River Road and offer outstanding vistas and overlooks. Another bedrock ridge along Highway CV east of the Marsh also have exceptional views of the Marsh and a view over the airport to the State Capitol. A steep isolated hill northwest of Token Creek Village rises nearly one hundred feet above other hilltops in the area. Its prominence was noted by early settlers who called it "Big Hill" and used it as a landmark when traveling in the area. This hill overlooks the entire valley and also offers a view of the Capitol ten miles to the southwest.

- B. Soils -- Soils information for the study area was provided by the U.W. Extension Soils Service, and recently the USDA Soil Conservation Service has published a new soils survey for all of Dane County. The soils of the area are predominantly peat or muck soils in the lowlands and silt loams or sandy loams on the uplands. The upland soils are agriculturally productive, but wetter soils are only productive when adequately drained. Occasional sandy or gravelly soils have low agricultural productivity.

The soils were considered for their ability to support "urban improvements" (roads, foundations, basements, septic fields) and those with severe or moderate limitations were designated on a soil analysis map. These limitations are usually due to high water table, frost heaving, compressibility, or very high or low permeability. Also, most soils function poorly on steep slopes, so soils will have more severe limitations on steep slopes.

- C. Water Resources -- Major water resources of the area are Lake Mendota, the Yahara River, and Token Creek. The watershed of the Yahara River is approximately 90 square miles, including the 19 square mile Token Creek watershed. High soil retention allows much of the precipitation in the basin to recharge the ground water and contribute to year-round flow where it discharges as springs. Although the Token Creek watershed is only one-fifth of the total watershed, it contributes more than half of the water flow due to the many springs at its headwaters which may receive recharge from outside its drainage area. The outlet of Six-Mile Creek into Lake Mendota is also within the study area, near Mendota State Park.

The floodplain covers a wide expanse of Marsh throughout the study area. During times of low and medium flow, the water level in Cherokee Marsh is nearly the same as Lake Mendota, but during high water the entire Marsh serves as a natural storage basin.

Groundwater resources have not been well documented. It is generally known that there are many springs and seepages throughout the study area. Springs are frequently found at the upland-wetland edge and there are indications that major seepages exist beneath the peat layer. It is also not known to what extent the shallow aquifer which feeds these springs is connected to the deeper aquifer which supplies our well water. Basic research is needed to answer these questions. Such information is essential for determining locations of new wells and what their depths should be. Many of the rare plants and plant communities in Cherokee are dependent on a constant supply of groundwater seepage.

- D. Vegetation -- A study of vegetation types for Cherokee Marsh was done by Bedford, Zimmerman, and Zimmerman in "Wetlands of Dane County Wisconsin", a study done for the Dane County Regional Planning Commission. Their summary follows:

"Cherokee Marsh is an extensive peat deposit along the Yahara River and Token Creek, north of Lake Mendota. Covering over five square miles, . . . the continuous Cherokee complex is now (excluding

drained marshes) the largest wetland in Dane County and the major wetland in Lake Mendota's watershed."

"The matrix of Cherokee is very large expanse of open wet sedge meadow, varying to fen, prairie, bog, and shallow marsh in places. The less accessible central areas probably retain the condition and appearance of many of the Yahara basin marshes a century ago. . . . The more accessible peripheral areas, including river frontage, have in many places been converted to disturbance vegetation, such as reed canary grass or shrubs. Islands of upland support oak forest or open fields, while small depressions have high quality ponds or springs. In general, the abundant ground water flow is from east to west, toward the river, with local discharges appearing in several places to maintain good quality natural vegetation."

"Special Values -- Cherokee Marsh is a major nutrient and flood sponge for Lake Mendota. Drainage would harm the lake by allowing the peat sponge to oxidize; hence, neither ditching nor mining of essential groundwater should be allowed, lest the peat dry out and oxidize or burn, releasing nutrients to the lake."

"Cherokee Marsh contains a diversity of plant communities including some of each in an undisturbed state: fens large and small; springs; relic tamaracks, alders, and bog mats; various sedge meadows with and without shrubs or reed canary grass; ponds, shallow marsh; a little deep marsh; river flora; low prairies; willow swamp; upland oak, cherry, ash, and basswood forest; old fields; and numerous gradients between communities and between disturbed and undisturbed examples. The rich flora and fauna includes many rare species (see Threlfall, 1973)."

"The large extent of the marsh provides space for non-conflicting multiple uses; quiet open expanses of landscape rare and appreciated near the city; entire geological features, such as drumlins and bedrock hills rising out of the glacial plain; and habitat for scarce species of animals including cranes, harriers, short-eared owls, red-tailed hawks, bobolinks, several snakes, and predatory mammals, giving the ecosystem a high degree of completeness. . . ."

"The extensive fen and bog peat deposit, with its hydrology mainly undisturbed, may allow elucidation of peat formation, history, effects of disturbance, effects on water quality, role of hydrology, and relationship of bogs, fens, sedge meadows, and prairies."

In 1976, 130 acres of wet prairie-fen-sedge meadow was designated a State Scientific Area, with more acquisition proposed to expand it to 400 acres.

More detailed descriptions of plant communities and species present can be found in Plant Survey, Threlfall and the Cherokee section of Wetlands of Dane County.

- E. Wildlife -- An excellent document on both plants and animals of Cherokee Marsh is the Plant and Animal Survey in Cherokee Marsh 1973 - A Preliminary Report by Threlfall, Severson and Samuelson. Their study, which covers animal life from bacteria to mammals, indicates that there is a tremendous diversity of wildlife in this 4,000 acre complex of wetland and upland communities.

Mammals included all of the common mammals of Southern Wisconsin - badger, bats, chipmunk, deer, fox, gopher, ground squirrels, meadow vole, mink, deermice, mole, muskrat, opossum, rabbit, raccoon, shrews, skunk, squirrels, weasel, and woodchuck.

A great variety of songbirds nest or migrate through the area. A list of large, conspicuous non-game species seen in the study area included great horned owl, long-eared owl, short-eared owl, screech owl, snowy owl, 5 species of hawks, American bittern, least bittern, American egret, great blue heron, green heron, and sandhill crane.

Gamebirds included pheasants, woodcock, snipe, and occasional sightings of ruffed grouse and bobwhite quail.

Waterfowl included at least 20 species of swans, geese, and ducks, even though waterfowl use is restricted by poor water quality of the Yahara River.

- F. Endangered Species -- In Wisconsin, there are currently 56 plant species and 46 animal species which are protected by law as endangered or threatened. An additional 170 plant species are considered "critical species" which are rare and whose populations are watched closely. There are also 30 additional animal species on "watch" status whose populations may or may not be holding their own.

Cherokee Marsh presently has no known species which are endangered or threatened. It does have the following eight species on the "critical" or "watch" status:

Critical Plant Species

Cypripedium calceolus var. parviflorum
small yellow ladyslipper

Cypripedium candidum
white ladyslipper

Gentiana procera
narrow-leaved fringed gentian

Napaea dioica
glade mallow

Panax quinquefolius
ginseng

Scirpus cespitosus
(no common name)

Animals on "Watch" Status

Circus aeruginosus
harrier or marsh hawk

Thamnophis butleri
Butler's garter snake

- G. Fishery -- Cherokee Marsh is critically important habitat for the northern pike (Esox lucius) which is a major game fish of Lake Mendota. As the City of Madison developed on the southern lakeshore, many marshes were filled for urban development. Cherokee Marsh is the major remaining marsh for northern pike spawning and fry rearing. Since the 1940's, when the Wisconsin Department of Natural Resources became aware of a declining northern pike fishery, work has been done to improve the wetland spawning habitat. In the northern pike studies, it was also noted that large numbers of other game fish and pan fish migrate into the marsh to spawn.

Sport fishing in the area is conducted mainly in the channel and from the banks near the railroad and Highway 113 bridges. There is also considerable year-round fishing in the dredged "Cherokee Lake" in Section 24, where the water is much deeper than other areas of the marsh. Some fishing is also done in the Yahara River and Token Creek channels further upstream in the marsh. Brook trout and brown trout

are present in Token Creek upstream from the Interstate bridge, although it is not classified as a trout stream. These fish originate from the Token Creek state rearing pond. Listed below are the common species caught in the area:

<u>Game fish</u>	<u>Panfish</u>	<u>Turtles</u>
Northern pike	Bluegill	Snapping
Largemouth bass	White crappie	Painted
Walleye	Black crappie	Blanding's
Brown trout	Yellow perch	Softshell
Brook trout	White bass	
	Yellow bass	<u>Others</u>
	Yellow bullhead	Carp
	Brown bullhead	Buffalo
	Black bullhead	White sucker
	Pumpkinseed	
	Channel catfish	

(A list of non-game fish, amphibians, and other aquatic species can be found in the Plant and Animal Survey.)

- H. History -- The name "Cherokee Marsh" apparently comes from the Cherokee Hunting Club, which was established in about 1887 and had a clubhouse in the marsh area.

Early histories of the townships make little mention of anything in the marsh area. Past residents recall that it had the typical uses for marshland - mowing for marsh hay, grazing, hunting, and fishing. Some early attempts were made at ditching the marsh, none of which proved very successful. The Tenney Park dam which was constructed in 1912, raised Lake Mendota by about 5 feet, flooded out some marshland in Cherokee Marsh, and generally made drainage attempts unsuccessful. This prevented large-scale farming of the marsh and also prevented peat fires during the drought period of the 30's.

During the late 1950's it was proposed that Cherokee Marsh be acquired for public conservation and recreation purposes. There was subsequently considerable debate over subdivisions proposed for upland areas within the marsh. In 1964, some subdivision was approved and public acquisition of other lands began. In the following 15 years, over 3,000 acres were acquired by the City, County, and State.

The State Historical Society has researched their records and found the following archeological and historical sites in or near the study area:

"Though no comprehensive study of this area has been made, the number of known properties in the Cherokee Marsh area is considerable."

"Thirty-eight archeological sites, including two National Register properties located on the grounds of Mendota State Hospital, have been identified. Eleven of these sites contain effigy or conical mounds dating from the Middle or late Woodland periods; several are considered to be the finest and largest examples of their kind to be found anywhere.

Our information about many of the other sites is rather sketchy. Early descriptions of these were often vague, and frequently, important information was omitted, making it rather difficult to pinpoint their exact locations or to identify the number of cultural components represented. It is highly probable that there are many archeological sites in the study area which have not yet been identified; the protection of these sites should be considered when drawing-up your master plan.

In addition to the archeological sites, seven properties of architectural significance were identified in a recent survey which included your study area. Among these are several 19th century farmhouses, Cleven's Grocery Store, and Ellen Sabin House (home of the former president of Milwaukee Downer College). Should your master plan call for acquisition of these, or any other buildings, please notify us."

- I. Population and Land Use -- To the south of the study area is the City of Madison (population 170,616; all populations as of April 1980). To the west is the Town of Westport (2,748). To the east is the Town of Burke (2,967). To the north is the Town of Windsor (3,812). Within three miles are the Villages of Waunakee (3,866), DeForest (3,367), and the City of Sun Prairie (12,931). Land use in the cities and villages is urban, with relatively high population densities. Land use in the three adjacent Towns is rural, primarily agricultural with some low-density residential areas.

Land use recommended for this area by the Dane County Regional Planning Commission emphasizes the open space corridor, which is the largest open space corridor in the Madison area. The regional plan shows urban service areas north and south of the Marsh but not to the east and west. This plan has been approved by the Dane County Board but not by all of the municipalities within the county.

In the City of Madison, most of the preservation boundary is already well defined. The Cherokee Park Subdivision, approved in the 1960's will have additional development both east and west of Sherman

Avenue. Another area of development is north of the Mendota Mental Health Institute, where the Westport Meadows Subdivision has been approved. The Mendota Institute is a major institutional land use in the study area which is expected to continue.

The Town of Westport has approved a Town Land Use Plan which generally recognizes the open space boundaries shown in this plan. Development in Westport will be directed to Sections 21, 22, 27, and 28 north of Mendota State Park for the near future.

The Town of Burke has prepared a Town Land Use Plan which also recognizes the proposed open space boundaries. There is some commercial development along Highways I-90, 51, and CV and a major limestone quarry between 51 and CV in the Town of Burke. An existing residential area is located east of the Token Creek County Park.

The Town of Windsor adopted a Land Use Plan in 1979, which directs urban development to sewerred areas in Windsor, DeForest and Sun Prairie. Within the study area, there is a large residential development surrounding Token Creek Pond.

The marsh areas are crossed or bordered by five major highways--Interstate 90; State Highways 19, 51, and 113; and County Highway M; making it easily accessible from a large surrounding area.

Two major interceptor sewers of the Madison Metropolitan Sewerage District meet within the area. The DeForest Extension runs south from DeForest and along the west side of the Yahara River through the study area. The Waunakee Extension joins the DeForest Extension in the western part of the study area where a pump station pumps the sewage out to the east. Sanitary sewer connections exist in the Cherokee Park Subdivision, in Westport near Highway M and in the Windsor-Lake Windsor area. All other developments in the northern part of the study area are unsewered.

A major land use southeast of the study area is the Dane County Regional Airport, which relies on the marsh area to provide open space for flyover of incoming and outgoing airplanes. The airport has been improving the north approach to their north-south runway so they can approach and take-off over the non-residential marsh area instead of over the City of Madison. A preliminary Airport master plan suggests improvement to the north-south runway but no northerly extension. The improvements will

enable larger planes to land and take-off safely and will extend the noise impact zone, which is not recommended for residential development, to the southern Lake Windsor area. The master plan also recommends airport acquisition, using federal matching funds, of some areas along CV and east of Sherman Avenue.

III. RECOMMENDATIONS

The following recommendations were chosen from a series of alternatives based upon consideration of: site characteristics; plan objectives; public comments; and review by the Cherokee Marsh Advisory Committee.

- A. Open Space Boundary Alternatives -- Currently, all local and regional land use plans affecting Cherokee Marsh recognize it as a major open space area. One purpose of this plan is to identify the boundary of land which is intended to permanently remain as open space and have that boundary recognized by all current and future plans for the area. The relative merits of three alternatives were considered:
1. Wetland Only -- This alternative would recommend preservation of only the floodplain and wetland areas, which would include 1,800 acres of privately owned wetland, and no additional upland. While this alternative would be the easiest and least expensive to accomplish, it was rejected because it does not adequately protect water quality, wildlife habitat, aesthetics, and valuable upland sites.
 2. Roadway to Roadway -- This alternative would recommend preservation of all existing open space inside the major roadways bounding the Marsh (Highway M, and River Road, etc.). This would include protection of 1,800 acres of private wetland and 3,500 acres of private upland. While this alternative would provide a high degree of protection, it was rejected as being too difficult and expensive to be accomplished.
 3. Wetland Plus Critical Upland -- This alternative would protect the wetland plus the adjacent upland areas that are most critical for preservation. This would include 1,800 private wetland acres plus 900 acres of privately owned upland.

This was the chosen alternative, because it provides much more protection than the "wetland only" alternative, yet is much more feasible than the "roadway to roadway" alternative.

The choice of this alternative required a method for determining which upland areas should be included within the open space boundary. The Advisory

Committee reviewed the site characteristics and used the following rating system to evaluate all land outside the floodplain:

Two points were assessed for each major characteristic favoring preservation as open space: areas containing springs flowing into the Marsh, severe soil limitations for development, natural vegetation, slopes over 6% and a minimum buffer area of 200 feet from the edge of any marsh or surfacewater. Minor characteristics favoring preservation were assessed one point: moderate soil limitations for development; hilltops with scenic overlooks or which are visually prominent; known archeological sites; and airport noise zone #2.

Composite scores were compiled and areas adjacent to the Marsh with scores of two or greater were generally included within the proposed open space. To establish a rational continuous boundary, small areas of lower rating were included and areas of higher rating further from the marsh were excluded.

The final recommendations for the open space area is approximately 6,200 acres, 4,000 of which are wetland and floodplain, and 2,200 of which are upland. Approximately 3,500 acres are currently under public control by ownership or easement, leaving 1,800 acres of wetland and 900 acres of upland under private ownership.

- B. Existing Areas for Public Use -- A wide variety of areas throughout the marsh and adjacent upland are already available for public use, and are developing according to earlier plans under several different jurisdictions. This plan recommends continued development of these existing public areas to meet most user needs:

Mendota State Park will stress water-oriented recreation, with access as much from the lake as from highways. Development proposed to begin in the mid-1980's will include a swimming beach, boat landing, trails, group day camping, and picnic facilities.

Cherokee Marsh Conservation Park at the north end of Sherman Avenue, is a Madison-owned educational facility. It has developed trails, boardwalks, and observation areas; and is used by 7,000 Madison School students each year. This area is well-suited for an educational center due to its location on an island surrounded by Marsh. All plant communities are accessible; it has outstanding aesthetic qualities; and its isolation

allows separation from non-compatible uses. Programs here should be expanded for public use and use by other area schools.

DNR Public Hunting and Fishing Grounds in the northern half of the Marsh allows a space large enough and sufficiently removed from residential development that fishing, trapping, and some form of hunting should always be possible, within 10 miles downtown Madison.

A Wisconsin Scientific Area has been designated on City-owned land in the southeast area of the Marsh. This designation recognizes the uniqueness and quality of the largest fen (a plant community found only on spring-fed peat deposits) in the Midwest. The site is intended for advanced study and research, not use by the general public.

Token Creek County Park is an all-purpose recreation facility for this segment of Dane County. It includes athletic areas, picnic areas, camping, natural areas, and trails.

Yahara Heights County Park is basically a resource preservation area.

Neighborhood Parks are presently located or proposed along the City of Madison edge of the area at Cherokee Lake, School Road, and Sauthoff Road. These parks include playgrounds and small playfields for use primarily by nearby residents.

- C. Alternatives for Future Public Use -- While most present and future public use can be expected to occur at the facilities described above, several current trends point toward increasing public use of the Cherokee Marsh area. The continuing increase in the median age of the population and the interest in environmental protection has increased demand for less intensive recreation in natural and scenic areas. The rising price of gasoline is also likely to result in more use of natural areas close to population centers.

The purpose of this portion of the plan is to give some direction for future decisionmaking regarding public access and use of the Marsh area, particularly those areas which are now under private ownership having no public access or use. Three basic alternatives were considered:

1. Promote Public Use by developing new use areas and expanding facilities throughout the Marsh to attract more users. This alternative was rejected because it could open vulnerable areas to overuse and abuse; and could overload the capacity of both the land and the land-managing agencies.
2. Limit Public Use to present levels at existing areas.

This alternative seems very protective of the Marsh, but was ultimately rejected as unfair and impossible to implement. Unlike remote wilderness areas, Cherokee Marsh is too accessible to too many people to effectively curtail its use. Especially in areas where housing development occurs near the Marsh, it is very difficult to shut people out completely, whether on public or private land. Perhaps the most effective way to limit use would be to prohibit any additional housing within several miles of the Marsh. Such a policy is beyond the scope of this plan, and is more properly addressed in Town, City, and County land use plans.

3. Control Public Use by providing limited facilities to meet population pressures and directing activities to those facilities. This was the chosen alternative, because it recognizes peoples need to visit a wild area such as Cherokee, while also recognizing that much of the Marsh is fragile and cannot be opened to uncontrolled use.

The chosen alternative is not intended to open up extensive new areas for public use. For most of the area, this plan does not propose any new park development. It does propose that planning options be left open to deal with future situations.

In practical terms, this means that most of the Marsh area would remain in its present condition, as long as adjacent land use stays primarily rural. Limited development, aimed at controlling public use rather than promoting it, is likely to occur only where housing is built near the Marsh, e.g., the City of Madison side, the Bluebill Park area in the Westport Urban Service Area, and other areas which are partially developed (where some measures may be required to control the existing level of use).

For most of the area, this plan does not propose any new park development. It does propose that planning options be left open to deal with future situations.

A variety of facilities have been discussed in relation to the chosen alternative:

Neighborhood Parks, which contain the active recreation facilities to serve a residential area, must be provided in all neighborhoods which develop adjacent to the Marsh. These could be located either centrally within the residential area or adjacent to the Marsh open space corridor. The goal is to provide a neighborhood location for active recreation (games, sports, picnics, etc.) and discourage such activities within the more natural open space corridor.

Pedestrian/Ski Trails will probably develop naturally near residential areas, even though extensive new trail systems are not recommended. Where demand or use pressure requires trails, it is recommended that they be designed as limited loops, avoiding sensitive areas, and minimizing erosion and hazards. Minimal maintenance and patrolling would restrict users to those trails and prevent abuse by bicycles, motor vehicles, etc.

Bike Trails may be desirable at the edge of the open space corridor but not deep within it. Bicycling is presently possible throughout much of the area, including paved shoulders on Highway M in Westport and Highway CV in Burke. However, where residential development occurs (adding more motor traffic to major roads), bike trails on minor streets or off-street paths at the edge of the open space would be desirable.

D. Alternative Methods of Implementation

Four methods of implementation were considered for preventing additional development and achieving permanent protection of land within the open space boundary.

1. Land Use Control would apply all available land use regulations to protect the areas within the open space boundary. These include land use plans; zoning (conservancy, floodplain, shoreland); official mapping; and State wetland regulations. Unlike acquisitions, easements, and deed restriction, these land use controls such as zoning can be changed by governmental action. In addition, many of them already allow some activities and uses which would be contrary to the objectives of this plan.
2. Easements would be of two types: conservation easements which would preserve the land in a natural state but not allow public access; and access easements which would allow specified public uses in easement areas. This alternative provides a permanent means of protection but less public control and use of the land. Where easements have to be acquired, they may be nearly as expensive as full acquisition. However, if they are fully or partially donated, they would be preferable to acquisition in many situations.
3. Acquisition by public agencies would provide for the most complete public control of lands. This would also be the most costly alternative, assuming that easements would be rejected if they were nearly as expensive as acquisition. Acquisition would remove land from local tax rolls, although this impact is reduced by increased school aids and other payments.

4. Allow Limited Development in Exchange for Public Control. This alternative would allow limited development (e.g., one house on 15 acres) in exchange for dedication or easements which would provide preservation and public use on most of the property. Although this appears to be a method to acquire 90% of the land within the project at no acquisition cost, the costs associated with this alternative would be the costs of low density sprawl into the Marsh area. It may also be contrary to adopted land use plans and existing zoning ordinances.

The Chosen Alternative was a combination of all four alternatives. Land use controls will provide good short-term control, which are intended to prevent further development within the open space, but which are not intended to unduly obstruct maintenance and reconstruction for present uses. Long-term protection should be achieved by either acquisition or easement. In some cases, easements will probably be preferable and in others acquisition may be preferable. That option should be left open for the public agency and landowner to decide in each case. In urban service areas where housing development does occur, some land may be acquired by dedication. Allowing development in exchange for public control is generally discouraged. However, in some cases involving large and expensive properties, such proposals for very limited development may warrant further consideration.

E. Implementation Responsibilities

The key responsibility for all agencies is to continue cooperation and communication to preserve the open space corridor. It is recommended that the Cherokee Marsh Advisory Committee continue to meet at least annually, under the coordination of the Regional Planning Commission, to maintain the lines of communication regarding Cherokee Marsh.

Actions and Timing The following implementation steps should be taken in the first five years following adoption of the plan:

1. Agencies should realign their project boundaries where necessary to eliminate any gaps in the open space corridor, and adopt Land Use Plans and Open Space Plans that recognize the total corridor.
2. Adopt appropriate land use controls to reflect the plan.
3. Support the intent of the plan by ongoing actions in plat review and subdivision control, and use of existing wetlands, shoreland, and floodplain laws.
4. Begin discussions with landowners to learn their preferences for long-term protection - easements, acquisition, dedication, special conditions, etc.

5. Each agency, within its primary area of responsibility, should acquire land or easements if they become available, as funding allows.
6. Seek special funding sources.
7. Based on landowner preferences and anticipated funding levels, the public agencies and the Advisory Committee should develop a detailed five-year implementation plan, which can be reflected in the Park and Open Space Plans of the participating units of government.
8. The long-range policy plan and the short-range implementation plan should be reviewed and updated by the Advisory Committee and other appropriate agencies every five years.

Proposed State Responsibilities are acquisition and development of the Mendota State Park area; and acquisition and management of the Public Hunting and Fishing Area in the north half of the Marsh. The State is also the lead agency for environmental protection concerns such as pollution, and surface and groundwater protection.

Proposed County Responsibilities are to recognize the total corridor in Land Use and Open Space Plans and in on-going planning; for the Regional Planning Commission to take responsibility for continuation of the Cherokee Marsh Advisory Committee; to acquire lands for airport flyover space as proposed in the airport master plan; primary responsibility for acquiring land and/or easements upstream from Token Creek Park and along the west side of the Yahara River between Highway 19 and Highway 113.

Proposed City of Madison Responsibilities are to recognize the total corridor in Land Use and Open Space Plans, and use available planning controls to protect it. Other responsibilities are acquisition of land and/or easements and development east of the Yahara River, south of the DNR boundary.

Proposed Town Responsibilities are to recognize the total corridor in their Land Use Plans, and to act to implement the overall plan. Such action would include Land Use Plans; zoning; adoption of subdivision regulations providing for land dedication; and cooperation in land/easement acquisition. The towns will also have the primary responsibility for planning open space access and linkages through already-developed areas, and areas to be platted in the future, such as the Westport Urban Service Area near Bluebill Drive.

Town land use plans are a major factor in determining the future of the Yahara River-Token Creek corridor. If land near the corridor remains rural, the marsh should stay as it is today. If additional housing is built near the open space, greater effort and expense will be required to accommodate and control public use.

Maintenance and Policing. It is the responsibility of the unit of government which has acquired (either through purchase, dedication or easement) any land to maintain it in such a manner that preservation is enhanced. Responsibilities for police, fire, and medical services will be shared by participating agencies. However, provision and payment for these services should be discussed periodically by the Advisory Committee to insure that protection is adequate and that it does not become an unfair burden on the small government units.

Overall, the basic responsibility for all participants will be to continue working together for preservation and controlled use of the total corridor. In the past two decades, great progress has been made by several agencies acquiring lands in different areas of the corridor. By working together in future decades, these lands can be tied together to provide protection for land and water resources, and to provide opportunities for limited recreational uses which are compatible with the long-term preservation of the Marsh.

IV. SUMMARY

For the past two decades, preservation of Cherokee Marsh has been a major public issue. In that time over 3,000 acres in the Marsh area have been acquired by three public agencies. The purpose of this plan was to bring together the major public agencies involved in planning for the area, to consider the long-range preservation of the entire Lake Mendota-Cherokee Marsh Corridor.

Information was compiled from existing sources to identify the characteristics of the site. Those characteristics include extensive marshland and floodplain; diverse vegetation, fishery, and wildlife; rare plants and animals; extensive soils unsuited for development; and numerous archeological sites. Perhaps the most important characteristic is the critical function of wetlands in maintaining the quality of surface water and groundwater systems.

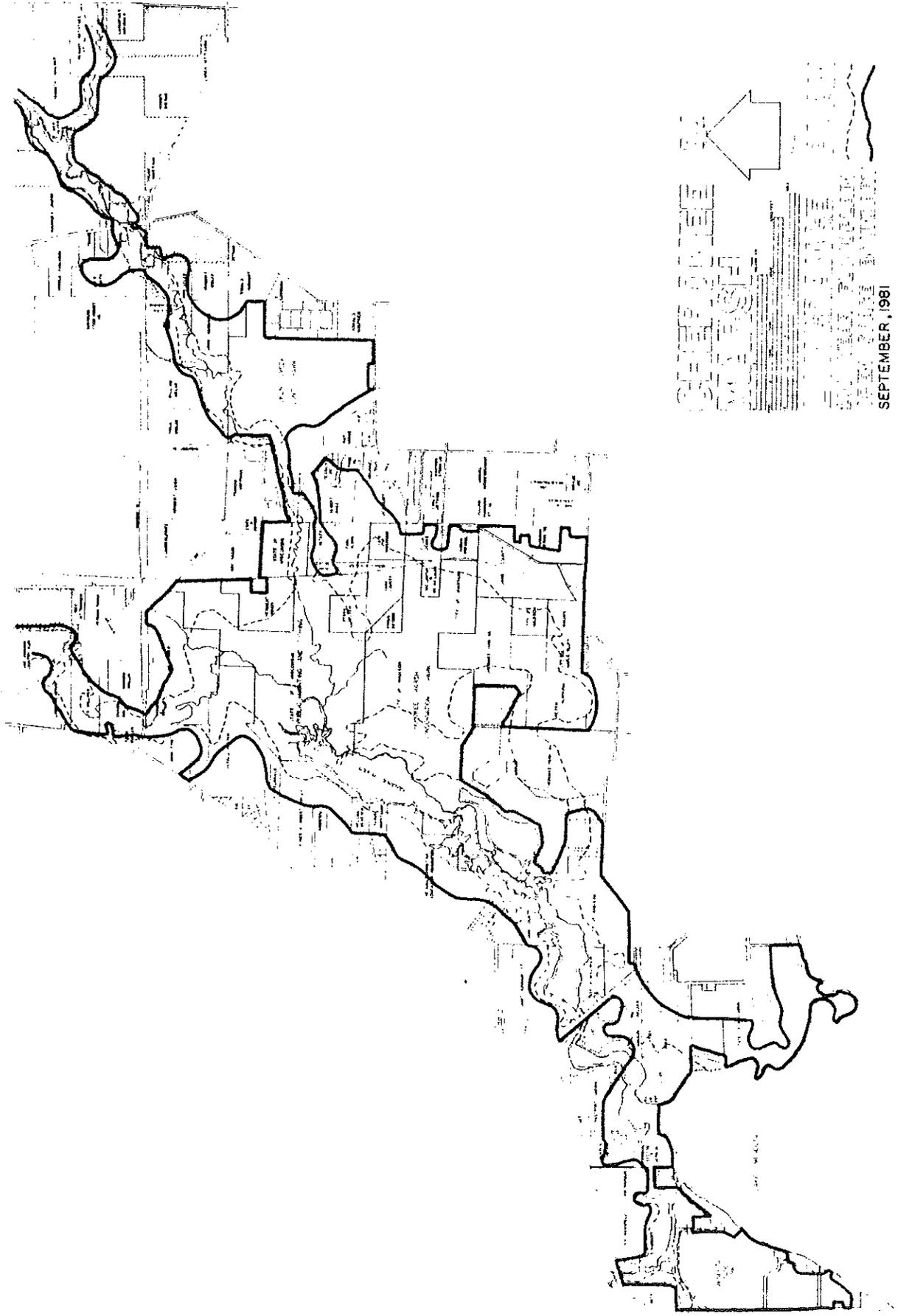
Land use near the Marsh area is urban in the south and mostly rural for the remainder. The major open space use planned here is in accordance with the County Land Use Plan. The open space is also needed as fly-over zone for the adjacent Dane County Regional Airport.

Recommendations of the plan are to continue the efforts of the past two decades -- to preserve valuable natural areas and provide space for present and future open space uses.

Present uses of the Marsh and adjacent upland are education, research, and recreation. Major recreational use is limited to those sites already acquired and partly developed. The only new recreation proposals are designed to direct and control the use pressure generated by housing near the Marsh. As such, development would occur only in areas near existing housing or in conjunction with new housing areas. The type of recreational use for those areas would consist primarily of trail systems and small activity areas near the upland edge of the project area.

The plan recommends continued cooperation between participating agencies, and suggests certain areas of responsibility for each agency.

In the past two decades, over 3,000 acres have been acquired for public use. This plan proposes that 2,700 additional acres be protected in coming decades to preserve Cherokee Marsh as a major open space corridor.



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SEPTEMBER, 1981

This plan has been reviewed and revised by the Cherokee Marsh Advisory Committee, which includes representatives of the following agencies:

Dane County Regional Planning Commission

Burke Town Board and Plan Commission

Westport Town Board and Plan Commission

Windsor Town Board and Plan Commission

City of Madison Parks Commission

Dane County Parks Commission

Wisconsin Department of Natural Resources

DEPARTMENT OF NATURAL RESOURCES	
DISTRICT OR BUREAU	
Southern District	
DNR NUMBER	

ENVIRONMENTAL IMPACT ASSESSMENT SCREENING WORKSHEET
(Attach additional sheets if necessary)

Title of Proposal: Master Plan for the Cherokee Marsh Fishery Area

Location: County Dane
Township 8 North, Range 9 & 10 East, ~~XXXX~~
Section(s) 12 & 13, 5, 6, 7 & 8
Political Towns Burke and Westport

Project:

1) General Description (overview)

The Cherokee Marsh Fishery Area extends from east of I-90 - I-94, south of Highway 19 to within 2 miles of the city limits of the north side of Madison. Two streams, the Yahara River and Token Creek, a tributary, flow through the marsh. The Cherokee Marsh Fishery Area is the largest northern pike spawning marsh adjacent to Lake Mendota. The marsh also serves valuable functions recycling nutrients, filtering sediment, absorbing excess water and supporting unique plant and animal communities.

A total of 827.99 acres of marsh, stream, hardwoods, cropland and forbs have been acquired. Future acquisition will be confined to "blocking in" private land areas

Continued on page 10

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

The master plan will provide direction in achieving the goal and objectives of the project which was established in 1964. Historically, acquisition was initiated to protect and preserve the Cherokee Marsh for northern pike and other sport fish spawning. Other reasons for preserving Cherokee Marsh are: (1) recycle nutrients; (2) intercept incoming sediment; (3) serve as a reservoir; and (4) provide waterfowl and furbearer habitat.

Authorities and Approvals:

1) Statutory Authority to Initiate
NR Board policy and DNR Manual Code 2103.2

2) Permits or Approvals Required
NR Board

3) Participants notified of above requirements? Yes No

4) Does this proposal comply with floodplain and local zoning requirements? Yes No

Estimated Cost and Funding Source: N.A.

Time Schedule: 1981

EXISTING ENVIRONMENT

1) Physical (Topography-soils-water-air-wetland types)

The Cherokee Marsh lies in the Yahara River valley which is generally flat, except for the steeper land areas paralleling the stream. The soils are a mixture of peat and clay-silt and are poorly drained in the lowlands, but improve in the higher terrain away from the marsh. The wetlands are sedge-grass and shrub-carr. No harmful air pollution is evident.

2) Biological

a) Flora

Woody plants noted are: red osier; willow; oak; aspen; silver maple; river birch; elm and cottonwood. Grasses identified are: brome; quack; reed canary; timothy; and big and little blue stem. Aquatic plants include: cattail; bulrush; sedges; arrowhead and sweet flag.

b) Fauna

Terrestrial species are the common songbirds, pheasants, rabbits, deer, squirrels and raccoon. Aquatic species recorded are northern pike, crappies, bullheads, white sucker, bluegill, carp, walleye, leopard frog and painted turtle.

3) Social

Only a few people live immediately adjacent to the DNR portion of the Cherokee Marsh. Most of the use comes from Madison residents who participate in a variety of outdoor activities all seasons of the year.

4) Economic

A modest increase in demand for gas, food and outdoor equipment from people using Cherokee Marsh Fishery Area. The restaurants and service stations on the interstate would benefit most.

5) Other (include archaeological, historical, etc.)

Three prehistoric archaeological sites have been discovered in the fishery area, all are located in the N $\frac{1}{2}$ of Section 6. The Bureau of Research, Scientific Areas Group has designated 130 acres of the Cherokee Marsh as a potential scientific area. Cherokee Marsh is one of two sites in the state for Scirpus cespitosus, a bullrush more associated with northern bogs.

PROPOSED ENVIRONMENTAL CHANGE

1) Manipulation of Terrestrial Resources (include quantities – sq. ft., cu. yds., etc.)

Modification of parking lot on Buckley Road by creating a gravel parking lot together with fire break plowing or other means to restrict parking to that area. Approximately 185 cubic yards of gravel would be required to surface a 100' x 200' parking lot.

Project was completed on November 3, 1983. The size of the parking lot was reduced to 80' x 40'.

2) Manipulation of Aquatic Resources (include quantities – cfs, acre feet, MGD, etc.)

None planned.

3) Structures

None planned.

4) Other

5) Attach maps, plans and other descriptive material as appropriate (list)

PROBABLE ADVERSE AND BENEFICIAL IMPACTS (Include Indirect and Secondary Impacts)

1) Physical Impacts

Protection of the marsh by land control and selective use will assure longevity to the water quality of the Yahara River and Lake Mendota.

2) Biological Impacts

There will also be a beneficial impact to the biological productivity and diversity of the aquatic and terrestrial ecosystems. Protecting the marsh for northern pike spawning and as a buffer to Lake Mendota are very important.

3) Socioeconomic Impacts

a) Social

Adverse social developments have already occurred by excess littering, vandalism and target shooting.

b) Economic

The economic benefit will be modest because of the nearby residency of the people using the area.

4) Other (include archaeological, historical, etc.; if none, so indicate.)

Three prehistoric archaeological sites have been discovered in the fishery area. These sites will be assured of being preserved in their present state.

PROBABLE ADVERSE IMPACTS THAT CANNOT BE AVOIDED

Increased littering and activity by youth groups.

RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Short term uses of the environment, e.g., hunting, fishing, hiking and cross country skiing, will create some intense use and maintenance, but no significant adverse impact to the long term productivity is anticipated.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES IF ACTION IS IMPLEMENTED

1) Energy

Resources committed will be manpower, fuel, materials and wear of equipment.

2) Archaeological and historic features or sites

None.

3) Other

ALTERNATIVES (No Action-Enlarge-Reduce-Modify-Other Locations and/or Methods. Discuss and describe fully with particular attention to alternatives which might avoid some or all adverse environmental effects.)

A. No Action

The optimum value of the Cherokee Marsh as a northern pike spawning area and buffer zone for Lake Mendota will not be realized if the planned acquisitions are not completed.

B. Enlarge Project

Not necessary to enlarge project to achieve the goal and objectives indicated.

C. Reduce Project

We are recommending reducing the acreage goal by 82 acres; leaving approximately 160 acres to purchase to block in our ownership. The Cherokee Marsh will be adequately protected, especially when the large acreage owned by the City of Madison and Dane County Parks is included.

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

- 1) 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 and discuss. (Secondary effects)

Increased land control will attract more users which will create more litter and vandalism.

- 2) Does the action alter the environment so a new physical, biological or socio-economic environment would exist? (New environmental effect)

A high quality environment will be created that will offer greater production and diversification of the plant and animal communities.

- 3) Are the existing environmental features that would be affected by the proposed action scarce, either locally or statewide? If so, list and describe. (Geographically scarce)

The environmental features are scarce locally, especially northern pike spawning marshes.

- 4) Does the action and its effect(s) require a decision which would result in influencing future decisions? Describe. (Precedent setting)

It reaffirms the necessity and value of acquiring key marshes adjacent to large lakes. The Cherokee Marsh Fishery Area is a good example of how three government agencies and citizens' groups can work cooperatively to attain common goals and objectives.

- 5) Discuss and describe concerns which indicate a serious controversy? (Highly controversial)

The main concerns will deal with how the Cherokee Marsh public land (all agencies) will be used. The existance of a citizen task force may resolve any differences before they are adopted.

- 6) Does the action conflict with official agency plans or with any local, state or national policy? If so, how? (Inconsistent with long-range plans or policies)

No.

7) 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? (Cumulative impacts)

No.

8) Will the action modify or destroy any historical, scientific or archaeological site?

No.

9) Is the action irreversible? Will it commit a resource for the foreseeable future? (Foreclose future options)

No.

10) Will action result in direct or indirect impacts on ethnic or cultural groups or alter social patterns? (Socio-cultural impacts)

No.

11) Other

None.

LIST OF AGENCIES, GROUPS AND INDIVIDUALS CONTACTED REGARDING THE PROJECT

include DNR Personnel and Title

Date	Contact	Comments
Nov. 1980	V. Hacker-Bur. of Fish Mgt.	Resource maps sent to Bureau for drafting.
Jan. 1981	Citizen Task Force	Met to discuss agency and citizen input in long range planning of the project.
Feb. 1981	DNR members of the Master Plan Task Force	Reviewed first draft of the master plan.

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 before the Department undertakes this action.

Refer to Office of the Secretary

Major and Significant Action: Prepare EIS

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

SIGNATURE OF EVALUATOR <i>Clifford Brynildson</i>	DATE <i>4/6/81</i>
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CERTIFIED TO BE IN COMPLIANCE WITH WEPA	
DISTRICT OR BUREAU DIRECTOR (OR DESIGNEE)	DATE

APPROVED (if required by Manual Code)	
DIRECTOR, BEI <i>Edward W. Engman</i>	DATE <i>3-21-84</i>

This decision is not final until approved by the appropriate Director and/or Director, BEI.

1) Description - continued from p. 1

within our present DNR ownership. Other outdoor activities that are acceptable to the goal and objectives of the project are hunting, cross country skiing, photography, trapping and nature observation.