

CHEROKEE MARSH

Yahara River Valley RegionPriority Group IWetland Description

Cherokee Marsh is an extensive peat deposit along the Yahara River and Token Creek, north of Lake Mendota. Covering over five square miles in Sections 4, 6, 7, 8, and 18 in the Town of Burke and Sections 12, 13, 23, 24, 26, and 27 in the Town of Westport, 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 a 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 (see Stout, 1912; Cahn, 1915; and Huels, 1915). 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 bed-rock 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. (Although disruptive aircraft noise occurs, it is periodic rather than continuous. The interstate's roar is apparent only when northeast winds occur.)

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.

Continuing its tradition, this area provides opportunities to demonstrate inter-agency cooperation, with public and youth input, in basic outdoor education, lake, marsh, and upland ecology and restoration, and research.

Land Use History: Inadvertent Preservation, Erosion of Values

Cherokee Marsh probably owes its preservation mainly to the fact that the level of Lake Mendota was raised several feet by the Tenney Park Locks in 1912, making it more difficult to drain, and preventing peat fires during the 1930's, although not preventing conversion of the south section into the Madison airport.

Additional preservation factors include its size, hindering access; abundant alkaline groundwater discharge forming and maintaining deep peat deposits which hindered vehicles, roads, farms and cottages toward the river; large recent state (DNR), city (Madison), and county (Dane) purchases for public purposes; lack of nearby sources for some weedy plants (cottonwood, nettle, shrubs) so that ditching did not bring many in; and planning efforts to slow urban sprawl (e.g., near Token Creek). Presence of the airport has discouraged development also; the east section (near the railroad, sections 7 and 18) is reserved for overflights.

Considerable damage has been caused by extensive ditching (see map) which has dried out large portions, dredging of tributary streams and Cherokee Lake and Golf Course, pumping of spoils into sections 7 and 18 east of the Sherman Avenue drumlin, invasion and planting of reed canary grass, woodlot and lowland grazing, and river and bank siltation from the farmed watershed. Bank erosion, caused by dredging, aggravated flood flows, and alteration of Lake Mendota's level, is perpetuated by ice action. Introduced carp have removed the wild rice and cause perpetually muddy water. Raising the lake drowned some swamps and deep marsh (the widened river channel seen on the map) but spared the fens which were originally well above lake level.

The Waunakee-Windsor sanitary sewer bypass has removed one important nutrient source and has not done irreparable damage to the choice Wheeler Road fen. Thanks to cooperation by the Madison Metropolitan Sewerage District through its representative Jack Maxfield, plantings were not made, and the natural fen plants are returning with some help from University of Wisconsin classes who removed the initial pioneering willows and cottonwoods on the restored peat surface. However, the ditch banks of the fen are caving in, while on the west side of the river some buckthorn and honeysuckle invasion was encouraged by construction disturbance.

Future Protection and Management

Major threats include future urban mining of groundwater, proposed additional roads such as on the west side of the river, and ditching of property still in private ownership. But since it is near to five public schools and Madison's fast-growing north side, Cherokee's educational and recreational uses, properly guided, will enhance protection by providing political support for further public purchases, management, protection, and development of facilities. Madison Public Schools, with encouragement of the City Parks Commission, has embarked on a comprehensive program for the Cherokee Outdoor Education Area, paralleling that of its School Forest West at Verona. Naturalist programs, tours, summer work/learn programs, biotic inventory, publications, trail layout, boardwalks and buildings are underway, with access from Sherman Avenue.

A city parks ranger and a custodian provide monitoring, use guidance, liaison and management. Separate hunter access to DNR lands from the northeast and a closed area near the educational facility attempts to prevent use conflict. Interest in the unique fens on the part of the Wisconsin Scientific Areas Preservation Council, as well as lack of easy access, can prevent overly intensive public use. General interest in the improvement of Lake Mendota, through rehabilitation of its entire watershed, will aid in continued protection of Cherokee Marsh despite urban pressures and heavy public use. Hence, Cherokee rates high in priority.

Ditches should all be gradually blocked--some level ones kept open for navigation access by classes, some sloping ones completely filled in--and no new ditches dug in any part of Cherokee Marsh. Like a bowl of jello, the peat deposit can't be preserved except as an entire piece. Raising or lowering the water in one place will create problems elsewhere in the marsh or lake.

Hydrologic studies should start now and plans be made soon to place future wells so as not to deplete Cherokee's ground water supply. Lake Mendota's water quality as well as Cherokee's vegetation depends on adequate moisture to maintain the peat.

Further public acquisition of private property should proceed to protect inholdings and buffer areas and assure coordinated management. Designation of three fen areas, two springs and two ponds as scientific areas would help protect the whole, as will outdoor education.

Peripheral development must be guided to protect surface and groundwater supply and quality and to provide a buffer zone. Specifically, farm management in the entire watershed should lessen mud and fertilizer input, development should not occur near waterways and should include percolation and ponding areas for runoff, and no road should be permitted on the west side of the river as it would separate the slope and promote its development. Instead, a hike/bike/ski trail along the entire west side of the river near the lowland, and crossing eastward north of Cherokee, could provide a much-needed recreational asset. It would be about 7 miles long and connect Lake Mendota with Token Creek Park.

Removal of buckthorns and honeysuckle from woods and marsh, reed canary grass from upland and marsh, and some invading shrubs and trees in disturbed areas not suitable for reflooding, should proceed now while they can still be controlled easily. Maintaining a large prehistoric open marsh, important for teaching peat maintenance, wildlife, and to keep woody seed sources low in the future, is best done by maintaining adequate moisture, which will also prevent peat fires. Burning to control undesired vegetation can be done in special cases and where the peat is wet, but alone will not assure control of woody plants.

Continued education of youth and adults to the values of wetlands and their relationship to lakes is an opportunity and obligation at Cherokee as well as being essential to protect Cherokee itself. Proper trail layout, an all-weather teaching building, and a full time resident naturalist are essential for protection and effective use of the Cherokee complex.

Some specific recommendations are given in the following key to numbered map locations.

PLATE 51

"CHEROKEE LAKE" AND DEVELOPMENT IN CHEROKEE MARSH BUFFER ZONE (C. GUELL)



PLATE 52

UPPER PORTION OF CHEROKEE MARSH (C. GUELL)

