

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Madison, Wisconsin

ITEM RECOMMENDED FOR NATURAL RESOURCES BOARD AGENDA

TO THE SECRETARY:

Date May 1, 1974

FROM: D. L. Weizenicker

SUBJECT: Approval of preliminary master plan and establishment of acreage goals for National Scientific Ice Age Reserve

1. To be presented at May Board meeting by D. L. Weizenicker

2. Appearances requested by the public:
Name

Representing whom?

Robert Chandler

National Park Service

3. Reference materials to be used:

Memorandums; master plan

4. Summary: Board approval is requested of the preliminary master plan, contingent upon a favorable environmental impact statement, and the establishment of acreage goals for the National Scientific Ice Age Reserve in Wisconsin.

The National Scientific Ice Age Reserve was officially established by Federal action, with the approval of Governor Lucey, by publication of unit boundaries in the Federal Register on May 29, 1971.

The final master plan, environmental impact statement, public hearings and review will be completed by late 1975 or early 1976.

5. Recommendation: That the Natural Resources Board approve the preliminary master plan, contingent upon a favorable environmental impact statement. It is also requested that preliminary acreage goals for the National Scientific Ice Age Reserve in Wisconsin be approved as listed, for addition to the State Parks System under Chapter 27, Wisconsin Statutes.

APPROVED:

S. W. Welsh 5/1/74
Mr. Welsh Administrator Date

DM
Mr. Deale Administrator Date

B
Secretary L. P. Voigt Date

Signed:

D. L. Weizenicker
D. L. Weizenicker, Assistant Director
Bureau of Parks and Recreation

cc: Miss Korn

- E. J. Faber - 7th
- D. W. Konkol
- M. E. Reinke

INTRA-DEPARTMENT

MEMORANDUM

Madison

Station

Date... April 30, 1974.....

IN REPLY REFER TO: 2510

TO: L. P. Voigt

FROM: D. L. Weizenicker

SUBJECT: National Scientific Ice Age Reserve - Approval of Preliminary Master Plan and Establishment of Acreage Goals

Board approval is requested for the preliminary master plan and establishment of acreage goals for the National Scientific Ice Age Reserve in Wisconsin.

As long ago as 1959, the Board discussed the concept of a National Scientific Ice Age Reserve. In 1962 and in 1967 further discussions were held. On several occasions the Board recommended changes in the Federal Legislation and approved in principle the Reserve's establishment.

Reserve Establishment:

On October 13, 1964, the Congress of the United States authorized the establishment of the National Scientific Ice Age Reserve. The Reserve is a cooperative venture of Federal, State and local governments designed to preserve and interpret the outstanding evidence of continental glaciation in Wisconsin.

The National Scientific Ice Age Reserve was officially established by Federal action with the approval of Governor Lucey upon publication of unit boundaries in the Federal Register on May 29, 1971. The Reserve consists of nine units located along the terminal moraine in Wisconsin, comprising 39,904.67 acres with 22,074.67 acres already in public ownership.

Ice Age Reserve Mission:

The mission of the Reserve is to assure the protection, preservation and interpretation of various nationally significant land forms that were shaped by the last stage of continental glaciation which covered parts of the North American continent. The implementation of the provisions of the Ice Age Act and the planning, operation and management of the Reserve is a cooperative venture of Federal, State and local governments.

Units of Reserve:

The following is a resume of the nine park units which comprise the National Scientific Ice Age Reserve:

Two Creeks - Located near Manitowoc, the Two Creeks Buried Forest has become world famous among earth scientists for the field evidence of multiple glacial advances and retreats within the Wisconsin Stage of glaciation and for the precise determination of the age of a localized interglacial period. The remains of a spruce-hemlock forest are found here in lacustrine sediments of the interglacial period. Based on radiocarbon dating of the organic deposits, it appears that the forest was thriving about 11,850 years ago.

Development at Two Creeks will be minimal, consisting of an enclosed interpretive shelter housing exhibits and covering the site of an interpretive dig. Parking for ten cars and two buses and a short hiking trail and overlook will complete the development.

The size of the Two Creeks Unit is 25 acres. The Natural Resources Board established the project in May 1969 and acquisition has been completed with the recent conveyance of the key tract to the State by The Nature Conservancy.

Sheboygan Marsh - Located in Sheboygan County adjacent to the existing Sheboygan Marsh County Park, the Sheboygan Marsh is an excellent example of an extinct glacial lake. The Green Bay lobe of the glacier created a large lake which, since its creation, has gradually filled with sediments and organic debris, creating a marsh-covered area of thousands of acres.

Development would consist of upgrading an entrance road, parking for 20 cars and two buses adjacent to an interpretive exhibit overlooking the marsh and a self-guiding interpretive trail developed in cooperation with the County.

The recommended project boundary for the Sheboygan Marsh Unit is 80 acres.

Kettle Moraine - Located in Fond du Lac and Sheboygan Counties and consisting of a portion of the Northern Unit Kettle Moraine State Forest, this area is outstanding from the standpoint of the variety, abundance and magnitude of its glacial features. These features provide evidence of the dynamics of ice movement and stagnation and contribute to the outstanding scenic quality and recreational potential of the unit. The area is known for the Northern Kettle Interlobate Moraine formed in the zone where ice of the Lake Michigan and Green Bay Lakes came into contact with each other.

Development will consist of an interpretive center with parking for 50 cars and 5 buses located at the junction of Highways 67 and G with numerous trails for Ice Age interpretation.

The Kettle Moraine Ice Age Unit comprises 20,340 acres. The acquisition goal is 16,980 acres with 14,461 acres presently state-owned as part of the Northern Unit Kettle Moraine State Forest leaving 2,519 acres to be acquired in fee. The remaining 3,360 acres of the unit (20,340-16,980) is located outside the forest boundary and is not designated for acquisition at this time. The only fee acquisition designated as part of the Ice Age outside the established forest boundary consists of a 560-acre block of land of which 180 acres is presently state-owned. The remaining 360 acres to be purchased in this block is included in the 2,519 acres to be acquired. This block of land contains some of the most geologically significant kames in Wisconsin.

Campbellsport Drumlins - Located in Fond du Lac County about six miles west of the Kettle Moraine near the Village of Campbellsport, this unit contains a fine display of long, rounded hills of large, somewhat atypical drumlins. The unit has a farmland setting. The drumlins found in this area are closer together and less elongate than most of the drumlins elsewhere in Wisconsin. An auto tour route with three wayside interpretive overlooks consisting of an in-place interpretive exhibit and parking for five cars would comprise the development. A self-guiding interpretive trail is also contemplated.

The recommended project boundary comprises 3,695 acres with 60 acres to be acquired in fee and the balance to be protected by local zoning or easement. The Natural Resources Board established the Campbellsport Drumlins Unit in March 1972 and a 10-acre overlook site was purchased.

Cross Plains - Located in Dane County near the Village of Cross Plains, this unit contains a segment of the terminal moraine situated along the boundary between glaciated terrain on one side and the unglaciated "driftless area" on the other. Contrasts in topography between the glaciated and unglaciated terrains can be observed from vantage points atop the moraine.

An interpretive building, a seasonal interpreter, parking for 25 cars and 2 buses and a comfort station will be provided.

The recommended project boundary contains 160 acres to be acquired in fee. This tract will be the most costly per acre acquisition in the Ice Age Units.

Devil's Lake - Nowhere in Wisconsin is the forceful drama of continental glaciation more apparent than at Devil's Lake. There the glacier diverted the Wisconsin River from the gorge it had previously cut through the ancient quartzite ramparts of the Baraboo Range and dammed both ends of the old river gap with glacial debris. Devil's Lake now fills the basin remaining between the two moraine dams. Above the

lake stand the purple quartzite blocks and sheer rock walls of the range. The unit contains features which illustrate outstanding chapters of other geologic history and prehistory cultural material has been found.

Development at Devil's Lake would augment and alter present recreational and interpretive provisions of the State Park. Ice Age facilities would center on the development of an interpretive center with a 50 car, 5 bus parking area and a system of interpretive trails and a visitor shuttle system.

The Devil's Lake Ice Age boundary consists of 9,810 acres of land to be acquired in fee. This acreage encompasses the existing Devil's Lake State Park (acreage goal 4,800.3 acres) and an addition of approximately 5,010 acres. State ownership within the Ice Age boundary consists of 5,254 acres leaving 4,556 acres remaining to be acquired.

Mill Bluff - Located along Interstate 90-94 just north of Camp Douglas in Monroe and Juneau Counties, this unit encompasses an interesting portion of the flat bed of extinct glacial Lake Wisconsin. With its mesas and pinnacles, the area is unlike anything else encountered east of the Mississippi River. The striking buttes at Mill Bluff are landmarks to the travelers of Wisconsin's interstate system.

Development will consist of an interpretive center with adjacent parking and a system of interpretive trails with overlooks and signed trail exhibits.

The Ice Age unit boundary encompasses 875 acres which lie within the state park boundary with the exception of 20 acres. State ownership within the Ice Age unit consist of 405 acres leaving 470 acres to be acquired.

Chippewa Moraine - Located in Chippewa County several miles northeast of the Village of Bloomer, this unit contains a miniature mountain landscape piled up by the advance of the Chippewa Lobe of the Wisconsin glacier. It stands today above the cultivated outwash plain as a woodland of jumbled hills set with more than 300 kettlehole lakes, ponds and pools. On the basis of the origin of its features, glaciologists refer to it as a "dead ice" or ice-stagnation area.

The development concept for this unit is minimal with emphasis placed on maintaining the wilderness aspect of the terrain. An interpretive center with parking for 25 cars and 2 buses, overlook sites and trails with possible trailside camping opportunities of the adirondack shelter type would be provided.

The boundary of this unit encompasses 4,000 acres with 1,000 acres presently Chippewa County forest land. The county forest lands would not be purchased but a land use agreement negotiated with the county to insure compatible land use management practices. The lands to

Current Status:

A detailed agreement to implement the Reserve was executed by Governor Lucey in August, 1972. The agreement and plan for the Reserve has also been approved by the U. S. Department of the Interior. On August 6, 1973, in a ceremony held at the Northern Unit Kettle Moraine State Forest and attended by Governor Patrick Lucey, Rogers C. B. Morton, Secretary of the Interior, Congressman Henry Reuss and other dignitaries, the National Scientific Ice Age Reserve in Wisconsin was officially dedicated.

The first draft of the preliminary master plan for the Reserve was completed by the National Park Service in July 1973. It was reviewed by Department staff and returned to the National Park Service with recommended revisions.

The final draft of the preliminary plan is now being presented for Natural Resources Board approval. The final master plan will be formulated after the completion of the required environmental impact statement and public hearings.

The Department has initiated work on the environmental impact report which will follow the new format as set forth under Wisconsin's Environmental Policy Act. It is expected the final impact report, public hearings and review will be completed by late 1975 or early 1976.

Planning and Development Schedule:

An environmental impact statement is under way and will be completed approximately March 1976 including EIS hearing, state and federal approvals.

The development for first priority units is expected to begin in 1976 with 2nd and 3rd priority development following close behind.

Timetable for units planning is as follows:

1st PRIORITY (1976-77 completion)

Kettle Moraine Northern Unit
Devil's Lake
Mill Bluff

2nd PRIORITY (1977-78 completion)

Cross Plains
Two Creeks
Interstate

3rd PRIORITY (1978-79 completion)

Chippewa Moraine
Sheboygan Marsh
Compbellsport Drumlins

The Ice Age National Scientific Reserve will also include interpretation devices such as films, folders, brochures, exhibits and other publications.

Interpretive trails with appropriate signing will be the mainstay of the Reserve.

Future work associated with the Reserve may include research of the nine individual units.

The Statewide Ice Age Trail sponsored by the Ice Age Park and Trail Foundation is proceeding and will eventually link the nine units of the Reserve.

This trail will in part, traverse private land from Two Creeks on the shores of Lake Michigan to the shore of the St. Croix River at Interstate State Park.

Original Development Cost Estimates (1968):

In 1968 the National Park Service completed a cost estimate for facilities envisioned at units of the Ice Age. Total final estimates are of course dependent upon completion and approval of detailed site plans. The total development cost as envisioned in 1968 totaled \$1,668,000.

Funding:

On October 21, 1970, President Nixon signed legislation which provides for financing the program. The method of financing is as follows:

- (1) Land acquisition to be 50% state ORAP funds and 50% federal land and water conservation funds.
- (2) Development to be 25% state ORAP funds, 50% land and water conservation funds and 25% National Park Service funds (with National Park Service share not to exceed \$425,000).
- (3) Cost for operation and maintenance of facilities and staffing to be equally shared between state and appropriated National Park Service funds. This legislation is unique as it is the first time the federal government has agreed to cost-share on project maintenance and operations costs. The National Park Service has budgeted \$248,607 for cost-sharing on operations and maintenance for fiscal year 1973-74 and \$278,900 for fiscal year 1974-75. The Department bills the National Park Service on a quarterly basis and for July 1, 1973-March 31, 1974, we have billed for \$222,513 and have received \$167,478 for the first two quarters of the fiscal year.

Summary:

Across the northern half of America, from the Atlantic to the Rockies, the Ice Age left a colossal hallmark upon our landscape. It's features can be seen in many places but nowhere is this stamp upon the Continent more evident and impressive than in Wisconsin. Indeed, the state has lent its name to the most recent advance of the continental ice

sheet, the Wisconsin Stage that ended approximately 10,000 years ago.

The Ice Age story is one of the great natural history sagas of North America. The continental ice sheet was a stupendous phenomena. It's geographical scope alone staggers the imagination, and at best the effect it had upon America can be seen only as relatively small, key fragments that remain scattered over half the continent. The maximum advances of the Wisconsin Stage has, however, left a belt of conspicuous glacial features across the State of Wisconsin and a number of areas designated as the National Scientific Ice Age Reserve best represent the telling of the Ice Age story.

The project proposal is the culmination of many years of effort by interested groups and citizens, State and Federal legislators, National Park Service and Department of Natural Resources to protect these significant natural resources and provide recreational and educational opportunities that can help all Americans better love and appreciate their land through understanding and observation.

The project has already received much public attention. While project costs are high, the geological and historical significance and potential of the project cannot be measured by dollars alone. It should serve as the "Ice Age" monument for future generations.

The National Scientific Ice Age Reserve has been established by an Act of Congress because of its geological significances. The Natural Resources Board, under Chapter 27, Wisconsin Statutes, has the authority to establish projects by reason of geological interest.

Recommendation:

Since the National Scientific Ice Age Reserve unit boundaries have been published in the Federal Register, the agreement executed by Governor Lucey and the Department of the Interior and federal funding provided, it is recommended that the Natural Resources Board approve the preliminary master plan contingent upon a favorable environmental impact statement. It is also recommended that the Board approve the preliminary Acreage Goals as listed for the nine units as additions to Wisconsin's park system under Chapter 27, Wisconsin Statutes.

D. L. Weizenicker

D. L. Weizenicker

DWK:se

cc: L. Korn

D. L. Weizenicker

D. W. Konkol

R. Chandler-National Park Service

RECOMMENDED:

S. W. Welsh
S. W. Welsh

5/1/74
Dave

APPROVED:

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