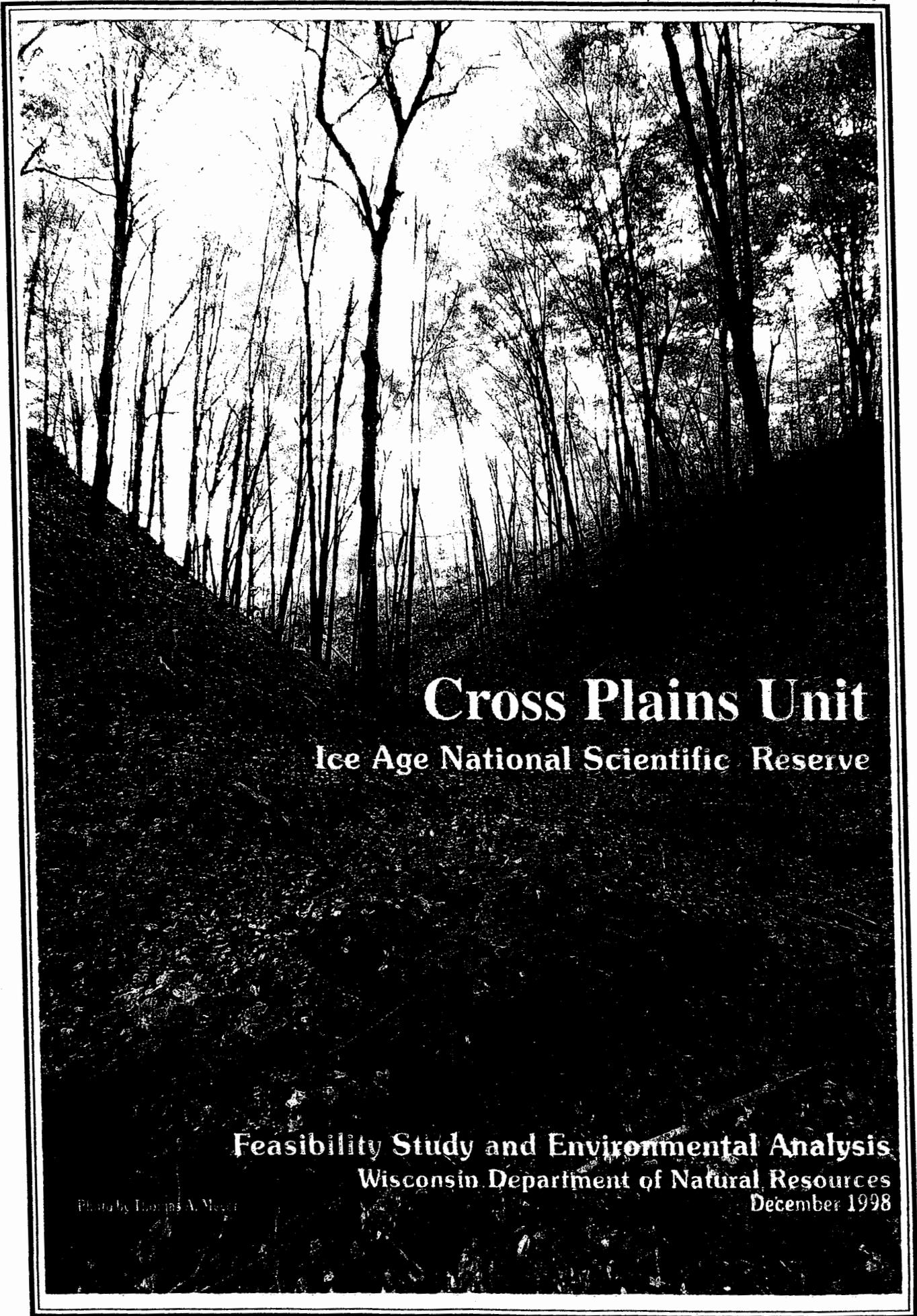


BILL MOORMAN



Cross Plains Unit

Ice Age National Scientific Reserve

Feasibility Study and Environmental Analysis

Wisconsin Department of Natural Resources

December 1998

Photo by Thomas A. Meyer

**FEASIBILITY STUDY
AND ENVIRONMENTAL ANALYSIS**

**FOR THE
CROSS PLAINS UNIT
ICE AGE NATIONAL SCIENTIFIC RESERVE
STUDY AREA
December, 1998**

**WISCONSIN DEPARTMENT OF NATURAL
RESOURCES
South Central Region**

Cross Plains Reserve Study Team

Danielle Valvassori	DNR Study Team Coordinator
Dave Bouche	Devils Lake State Park
Lee Clayton	Wi Geological and Natural History Survery
Dennis Gengler	DNR Wildlife Manager
Tom Gilbert	National Park Service
Drew Hanson	Ice Age Park and Trail Foundation
Penni Klein	Governor Nelson State Park Manager
Mary Ann Kroehn	DNR Forester
Thomas Meyer	DNR Natural Areas Specialist
Andy Morton	DNR Lower Wisconsin River Watershed Manager
Jim Mueller	Dane County Parks
Mary Zickerman	DNR Land Agent

Cross Plains Reserve Guidance Team

Susan Black	State Parks Bureau Director
Tom Gilbert	National Park Service
Ken LePine	Dane County Parks Director
Bill Moorman	State Parks
Susan Oshman	South Central Region Land Leader
Bob Roden	Land and Facilities Bureau Director
Christine Thisted	Ice Age Park and Trail Foundation Executive Director

CROSS PLAINS RESERVE

INTRODUCTION

The Wisconsin Department of Natural Resources and its partners--the National Park Service, Dane County and the Ice Age Park and Trail Foundation--are studying the geological, natural, cultural and scenic resources of the Cross Plains Reserve in Western Dane County to determine if the existing Cross Plains Reserve adequately protects these resources. The present 160-acre Reserve, managed by WDNR under a cooperative agreement with the National Park Service, is one of nine separate units of the Ice Age National Scientific Reserve in Wisconsin. The Cross Plains Ice Age Reserve exhibits outstanding evidence of the Wisconsin Glaciation which began receding from its furthest advance 15,000 years ago. Appendix A details the history of the Ice Age National Scientific Reserve and the location of the other eight units in the state.

This feasibility study examines expanding the Cross Plains Reserve boundary to encompass a total of 1,578 acres to protect geologic and hydrological features and plant and animal life. It is important to note that 1,240 of the total 1,578 acres lie within the acquisition boundary for the Ice Age Trail Corridor in Dane County, which was approved by the Natural Resources Board in 1991. Acquisition of this established corridor is carried out in a partnership between Dane County, National Park Service, the Ice Age Park and Trail Foundation and the Department. The County has agreed to take long term responsibility for maintenance and management of these lands. The Cross Plains Reserve also overlaps with the Dane County Parks natural resources area known as "the Black Earth Creek Resource Protection Area."

History of the Existing Reserve

The original concept for the Cross Plains Reserve encompassed a vision for protecting and including a broader and larger area that included meltwater lake basins and deltas to the south of the existing Reserve. These features relate directly to Wilkie Gorge, a central feature of the existing Reserve. Their omission from the Cross Plains Reserve has limited the scientific integrity of the site. Inclusion of these and other lands would preserve the landscape context in which the gorge is located, rather than protecting just the gorge itself, and provide opportunities to interpret more completely the glacial events that occurred.

Description of the Existing Reserve (maps in Appendix)

The existing 160-acre Reserve contains a segment of the moraine along the boundary between glaciated terrain and the unglaciated Driftless Area. The Driftless Area, comprising the southwestern quarter of the state of Wisconsin, is essentially an "island" which almost entirely escaped glaciation during the dozens of glacial episodes.

The Cross Plains Reserve represents the best example of the interface of glaciated and unglaciated terrain in the Ice Age National Scientific Reserve. The relationships between moraine, bedrock, and glaciated landscapes on one side of the moraine, and unglaciated landscapes on the other, are strikingly exhibited. Rugged ridges of moraine formed during the Wisconsin Glaciation meet eroded Driftless Area to the south and west.

NEEDS ANALYSIS

- ◆ Areas surrounding the Cross Plains Reserve contain highly significant glacial/geologic features that interrelate closely with the existing project. Including these features within the boundary of the Reserve would strengthen the scientific value of this Reserve and offer more extensive study, educational and interpretive opportunities.
- ◆ The Cross Plains Reserve and surrounding area contain vegetative communities dependent upon the glacial geology, resulting in an ecologically diverse and visually interesting landscape.
- ◆ A variety of natural communities exist, including the potential for prairie and oak savanna, within a relatively small area, resulting from the shaping of the landscape due to glacial and geologic processes.
- ◆ Expansion of the Cross Plains Reserve would help protect the headwaters area of Black Earth Creek. Black Earth Creek is a high-quality, Class I trout stream threatened by intense development in its watershed. The lands proposed for inclusion within the boundary of the Reserve include springs in the headwater reach of the stream and forested uplands that are a groundwater recharge area, where precipitation sinks into the ground instead of running off overland. Such filtered groundwater from recharge areas discharges as springs to form the headwaters of cold water streams.
- ◆ The existing Cross Plains Reserve is relatively small and threatened by the expansion of the Madison metropolitan area. If growth patterns continue, the existing Cross Plains Reserve could ultimately be used primarily as a small recreational park, and the scientific values that were the basis for its national status could be lost.
- ◆ Expansion of the Reserve would complement the water resource management goals of other projects in the area, including the Black Earth Creek Stewardship Easement Area, the Black Earth Creek Fishery Area, and the Black Earth Creek Priority Watershed. More than \$2 million has been spent to protect and enhance the water resource values of the Black Earth Creek watershed through the priority watershed program. The expanded Reserve boundary also falls within and meets the goals of the Dane County Upper Black Earth Creek Resource Protection Area (under development) as identified in the Dane County Park and Open Space Plan.
- ◆ Lands adjacent to the existing Reserve would be a likely location for a visitors and educational center to serve both the Cross Plains Reserve and the Ice Age National Scenic Trail, which is slated to pass through the study area.
- ◆ Scenic views of the surrounding landscape should be considered. By enlarging the Reserve boundary, views of glacial features and scenic fields and hillsides would be protected to preserve the overall integrity of the Reserve.
- ◆ An expanded Reserve would also serve as a western link of the overall Dane County Open Space Plan, as well as provide low-impact recreational opportunities.

PROPOSED DESIGNATION

The Cross Plains Reserve is designated a "state park" under the provisions of Section 27.01, Wisconsin State Statutes. The formal designation and use of the property is determined during the Master Planning Process, which involves extensive public participation. This process will consider the numerous comments received regarding the draft feasibility study, which suggest limited use of the area for passive recreation and nature appreciation.

ENVIRONMENTAL DESCRIPTION: Regional and Property Analysis

Cultural and Economic Factors

The Cross Plains Reserve sits between the Village of Cross Plains to the west and the City of Middleton to the east in western Dane County. This places the Reserve within the rapidly growing Madison metropolitan area with its population of about 400,000. Downtown Madison and the state capitol are a half-hour drive distant.

The proposed expanded boundary falls primarily within the Town of Cross Plains, with the remaining area in the Town of Middleton. This portion of the county is undergoing rapid urban development, primarily in housing, due to its proximity to Madison. Projections for expansion of the Cross Plains urban service area--that area within which sewer service is provided by the community--suggest the population served will increase from 2,900 to 3,530 by the year 2010.

The proposed project supports the objectives of the Town of Cross Plains 1981 Land Use Plan which includes the preservation of productive farmlands in the town for agricultural use, the protection of the natural environment and the preservation of the rural character of the town. The plan also identifies woodlands as an important resource to the town and gives priority to quality woodlands and those that provide erosion control.

Significant Geologic Resources

The following are significant geologic resources within the study area:

- The Cross Plains Reserve contains excellent examples of glaciated terrain on one side of the moraine and unglaciated Driftless Area on the other.
- The Reserve is the only example of classic Driftless Area topography within the nine unit Ice Age National Scientific Reserve.
- Bedrock exposures can be seen in road cuts and gorges on both sides of the outer most moraine.
- The site contains lake deposits and drainageways dammed by ice.
- Sedimentary deposits are found on the site from the temporary lakes and meltwater rivers that were contemporary with the most advanced, and waning phases of the ice sheet.

- Top soils of Ice Age dust or "loess" demonstrate the role of wind as a geologic agent.
- The area has the characteristic contrasting drainage patterns of glaciated and unglaciated areas on either side of the moraine.
- A deep gorge intersects the existing Reserve, perhaps partially cut by subglacial stream flow.
- The Black Earth trench, at the north edge of the Reserve, was cut through the preglacial drainage divide by glacial meltwater from the enlarged Madison lakes.

Significant Water Resources

Black Earth Creek, a Class I trout stream identified as an outstanding resource water of the state, has a good population of wild brown trout. Trout Unlimited rated the creek one of the best 100 streams in the nation.

The significant flow from springs along Black Earth Creek comes from the excellent infiltration of precipitation in the forested, upland recharge area, and the glacial outwash sands and gravel that fill the valley floor. These latter deposits provide an excellent conduit for the large amount of groundwater that flows into the creek from springs.

Significant Biological Features

Historically, a mosaic of oak savannas, oak forests, wetlands and prairies covered the study area of the Cross Plains Reserve. Extensive tall grass prairies grew in the valleys and areas of deep soil, and short grass prairie occurred on steep hillsides and on thin, dry soil. Oak savanna--scattered oak trees with an understory of prairie plants--and open oak woods cloaked a major portion of the study area. The low areas of the Black Earth Creek valley in the Driftless Area contained wet meadows and shallow marshes.

Most of the native plant communities in the study area have been destroyed, severely modified or reduced to mere remnants of their former area. Tall grass prairie and wet meadows were converted to agriculture owing to their rich soil. Oak savanna, open oak woods and dry prairie succeeded to closed forest with the suppression of fires. Grazing, logging and the invasion of exotic plant species also altered natural communities.

Results of recent surveys conducted by WDNR ecologists reveal, however, that several areas contain significant biological features or hold great potential for ecological restoration. On the existing Reserve lands, the area known as the Wilkie Gorge harbors a mesic forest composed of sugar maple, basswood, bigtooth aspen, and butternut with a rich spring flora. The rim of the gorge and a west-facing bluff contain oak savanna and dry prairie that could be expanded with management.

Significant ecological features in the study area outside the existing Reserve include two lakes that were in front of the glacier ("Coyle's Pond" and Shoveler's Sink) containing shallow marsh and emergent aquatic vegetation. No rare plants or animals were documented in the surveys, though exhaustive searches were not conducted.

PROPOSED PURPOSE

The proposed long-range goal for the expanded Cross Plains Reserve is:

To preserve the geologic, natural, cultural and scenic qualities of the Cross Plains Reserve and provide interpretive, educational and low-impact recreational opportunities through the management of an expanded project.

PROPOSED PROJECT OVERVIEW

Proposed Management

Final determination of management, development and uses are defined in a master plan, which would be prepared by WDNR in concert with partners and the public. The master plan would establish short- and long-term management goals to include use activities or restrictions. If the feasibility study is approved, WDNR would then add the Cross Plains Reserve to the master planning schedule.

The Cross Plains Reserve will be managed primarily to preserve and enhance the site's highly significant Ice Age glacial and hydrological features and related plant and animal communities, as well as provide interpretive and educational opportunities and limited recreation.

WDNR is not recommending intensive recreational development as part of this proposal to expand the boundary of the Cross Plains Reserve. All public use on lands managed would be low-impact, with the possible exception of activities occurring in and around a potential visitors/interpretive center.

In addition, this location could serve as a trail access for the Ice Age National Scenic Trail as well as trails local to the Reserve. Any trails and public use on the site would be sensitive to protecting important natural features and could include interpretive signs.

Existing Partnerships

Dane County Parks Department has developed an extensive open space program and has identified as part of its plan a natural resource area known as "The Upper Black Earth Creek Resource Protection Area." The western portion of this study area overlaps much of the same land in the county study. Dane County has been a strong supporter of the Ice Age Trail, and has joined the National Park Service, WDNR and the Ice Age Park and Trail Foundation in the implementation of the project. As of December, 1998, Dane County has financially assisted in the acquisition of over 900 acres related to the Ice Age Trail.

The National Park Service is one of two partners with WDNR, through formal agreement, in planning, development and administration of both the Ice Age National Scientific Reserve and the Ice Age National Scenic Trail. The Ice Age National Scientific Reserve is authorized by federal legislation as a partnership between Federal and State government. The National Park Service currently shares the operations cost of the Reserve with the WDNR through an annual federal appropriation, which covers up to 50% of the total cost. They are authorized to pay up to a 25% of the development costs for the Ice Age Reserve that could include exhibits and interpretative centers.

The Ice Age Park and Trail Foundation (IAPTF), a non-profit organization, is the other partner with WDNR, through formal agreement, in planning and implementing both the Ice Age National Scientific Reserve and the Ice Age National Scenic Trail. IAPTF currently owns 277 acres in fee and holds 15 acres of easements in Dane County for the Ice Age Trail.

Potential Partnerships

The U. S. Fish and Wildlife Service (USFWS) owns and manages about 160 acres of land at "Shoveler's Sink," a glacially created wetland area on the southern edge of the study area. The USFWS is interested in the protection of other wetland areas and will work with willing landowners as opportunities develop.

The Wisconsin Geological and Natural History Survey provides the insight on the glacial and geologic history of the study area; this group is a cornerstone to an expanded Reserve.

It is critical to have the participation and cooperation of local government and its citizens in any planning process. Thus, potential partnerships with *the Towns of Cross Plains and Middleton*, the *Village of Cross Plains* and the *City of Middleton* are important, since the citizens of these communities benefit from the "quality of life" enhancements created by an expanded Reserve and its associated open space. The Town of Middleton has been actively implementing its program to acquire green space as delineated in its plans.

The Black Earth Creek Watershed Association has pledged to safeguard the integrity of this nationally known trout stream. Portions of the stream fall within the study area; the stream derives many of its qualities from glacial geology. The waters of Black Earth Creek were also protected through the Priority Watershed Program through the end of 1997.

Black Earth Creek Conservation Organization is another organization dedicated to the protection of the Black Earth Creek Watershed.

REAL ESTATE TOOLS & COSTS

Tools and Costs

Management of a property such as the Cross Plains Reserve, with its diverse interests, requires a strong partnering effort, both public and private, and a creative mix of real estate management tools, including fee title, purchase of development rights, easements and various agreements.

WDNR has a long-standing policy of only purchasing lands from willing sellers. This policy would be followed for any land acquisition within the proposed Cross Plains Reserve expansion. Acquisition funding would initially be provided by state Stewardship Program land acquisition funds, a conservation program established by the Wisconsin Legislature in 1990. This program expires in 2000 and is now being studied by a Governor's blue ribbon task force that will make recommendations regarding a new program.

The 1,218 additional acres proposed for inclusion in the Cross Plains Reserve are owned by about 23 landholders. Not all of these lands will be acquired. Acquisition is a long-term process of acquiring land from willing sellers. If all of the lands and low-value improvements within the boundary were acquired the total estimated cost would be \$7,200,000 (not included in this total are the 160 acres owned

by the U.S. Fish and Wildlife Service). This estimate is based on market research of the area. This estimate includes \$200,000 for those low-value improvements which are under \$50,000 in value. The WDNR policy calls for avoiding the acquisition of high-value improvements wherever possible. Consequently, an estimated \$2,200,000 in high-value improvements within the proposed boundary are not included in acquisition costs.

Acquisition costs could be further reduced through the use of easements and collaborating with partners. Conservation, streambank and scenic easements may be appropriate for situations such as:

- ◆ when they meet public needs while allowing meaningful private use
- ◆ when their costs provide significant savings over fee title costs
- ◆ when they provide the necessary level of land protection to meet the objectives of the project or
- ◆ when they meet the desire of the landowner to sell other than fee title.

Alternatives to acquisition will be used if appropriate whenever possible. This may provide a significant reduction to acquisition costs. The savings cannot, however, be accurately estimated at this point.

It is the Department's intent to avoid fee title purchase of Class 1 agricultural land to the extent possible, and will use conservation easements as its preferred approach for that category of land. Class 1 lands may be purchased in fee situations where they occur as small inclusions within parcels of less productive land, where it is clear that the land in question would otherwise be converted to non-agricultural use, or where the property is considered essential to the purpose of the project. If a viable piece of Class 1 agricultural land is purchased, the Department would, if possible, sell back the land with restrictions that would allow agricultural use but preclude incompatible non-agricultural development. There are 420 acres of Class 1 agricultural lands within the project boundary.

Payment in Lieu of Taxes

It is the policy of the Natural Resources Board to acquire land within a project boundary from willing sellers or through donations. The use of scenic and conservation easements are important additions to fee acquisition. Lands purchased will be removed from the tax roll and the Department will make a payment in lieu of taxes. The payment in lieu of taxes which is equal to property taxes normally paid on that land, is distributed to the various taxing jurisdictions. There will be no noticeable loss of revenue to the local school district, City or County, nor will any land acquisition have a negative impact on regional land values. Expansion of the boundary would **not** alter zoning ordinances or alter the tax base.

Estimated Development and Annual Operation Costs

Development costs would be detailed during the master planning process, are estimated to be around \$350,000. This includes a small visitor center with parking, interpretive signs along the Ice Age Trail and some fencing as needed. Annual operations costs which would include staffing and maintenance are estimated at around \$80,000 based upon the development of a small visitors center as discussed above. The National Park Service is authorized to pay up to 25% of the development costs for the Ice Age Reserve that could include exhibits and an interpretative center.

PROPOSED ALTERNATIVES

A. Recommended Alternative. Expand the project boundary to include adjacent areas of geologic and natural significance. Use a variety of real estate tools to protect the additional 1,118 acres, to include various types of easements and fee title. This option would allow recreational uses to be developed without jeopardizing the integrity of the area. This alternative would increase the project ownership to 1,578 acres, from the existing 160 acres; the proposed boundary also includes the Shoveler's Sink area owned by the U. S. Fish and Wildlife Service, which covers about 160 acres.

This option allows for integrated management with some of the other initiatives ongoing and proposed in the area, including the Ice Age National Scenic Trail; the U.S. Fish and Wildlife Service's Waterfowl Production Area at Shoveler's Sink; the Black Earth Creek Fishery Area; the Black Earth Creek Stewardship Easement Area; the Black Earth Creek Priority Watershed Project; Dane County's Upper Black Earth Creek Resource Protection Study Area; and other possible local initiatives such as the town of Middleton's Green Space Program.

Additional costs would be incurred for acquisition or easements, but high-value improvements as described in the real estate section would be avoided and not included in project acquisitions.

The existing 160-acre site is not large enough to absorb any significant recreational pressure. Room for low-impact recreational activities nearby, but not on important glacial features, could diffuse the destructive effects that can occur when activities are concentrated on a much smaller site. In addition in the surrounding area recreational opportunities exist such as the Ice Age Trail, the Black Earth Creek Fishery area, and green space in the town of Middleton that can be linked with the Reserve in an integrated recreation plan.

B. Expand the boundary of the 160-acre site to include a portion of the lands necessary to protect the geologic, scenic and plant and animal integrity of the area. If lands are removed from the proposal, it reduces the future quality of the project, the scientific merit, and the opportunities to protect representative features from area development. It would also serve to concentrate recreation such as hiking in a smaller area, potentially causing damage to the features the proposed expansion would be protecting.

C. Accomplish through non governmental organizations All land protection efforts except for existing approved state and federal projects would be undertaken by non-profit conservation organizations (NCOs). The size of the project areas and acreage goals for protection would not need formal approval by the Natural Resources Board. The limiting factors would be the NCO's funding and capability for land stewardship. An NCO working on this project would be eligible to compete for Stewardship Program funding.

D. Purchase no additional lands (i.e., maintain current ownership). This alternative would not provide the desired level of protection for geologic and other natural resource features within and adjacent to the current property boundary. Opportunities to work with other partners on integrated planning and management would be lost. If the areas surrounding the Cross Plains Reserve aren't protected from development pressure, the Reserve could become a neighborhood park in an urban area, with the special features of the Reserve, such as Wilkie Gorge, being

destroyed under the pressure of intense daily use.

PUBLIC INVOLVEMENT

Appendix D includes a log of the various meetings, informational open houses and contacts made during the process. This more complete public participation log also includes all of the letters sent out during the feasibility study process as well as comments received from the public regarding the draft feasibility study. This complete log is available upon request.

Comments received on the draft feasibility study at and after the second informational open house held in August, 1998 were for the most part very supportive of the study area (16 for the project and one person against). Tours of the study area attracted minivans full of people during the open house. People were enthused after the tour to gain a new perspective of the landscape. Due to this positive experience the study team offered a follow up field trip on October 17 which was also well received by 20 people. Please refer to Appendix D for detailed information about the public involvement process used during the course of this study.

FUTURE FUNDING

It is anticipated that limited funds would be available from the current Stewardship program for the first two years of implementation. Based on what we know now, the Department's ability to acquire significant lands within the proposed project would be heavily dependent on a large, stable source, such as a renewed Stewardship Program. Timely acquisition is important to avoid losing opportunities to work with willing landowners to purchase targeted lands within the rapidly developing project area. While a guarantee of long-term funding is not available, there are good alternative funding possibilities available for accomplishing the project.

PROJECT FEASIBILITY

Based on the information presented above, Department staff believes that the proposed Cross Plains Reserve project is feasible from the standpoint of legal authority, ecological soundness, public support and availability of initial funding. Department staff recommends that the project proceed especially given the information in the needs analysis.

ENVIRONMENTAL ANALYSIS

ENVIRONMENTAL IMPACTS

The environmental impact of acquiring and managing additional lands as part of the Cross Plains Reserve would ensure that unique and highly significant geologic and hydrologic features and the plants and animals native to those features would be protected, restored and managed for the benefit of future generations.

Some impact will occur due to modest increases in recreational use. These impacts will be limited by the nature of the types of recreation: including trail activities and education and interpretation of the natural resource. The level of associated development (trails, interpretive signage) would also be modest, except in the area of a proposed visitors/interpretive center. At the center site, the benefits of the facility--information, education and interpretation--would far outweigh negative environmental impacts--traffic, a paved parking area, etc. Some trampling of vegetation, increased litter, and noise would be expected, but these are offset by the positives.

Significance of Cumulative Effects

The recommended management alternative would limit the land available for subdivisions and rural home sites. The reduction in available land for development in the area could raise property values.

Significance of Risk

If not protected and managed, parts of or all land around the existing Reserve would be developed, threatening the integrity and value of the site. The primary values of the core property would take on the needs of the local neighborhood, and overuse could be seriously threatening to the geologic, vegetative, scenic and recreational values of the site. The prospect of interpreting the broader geologic landscape not included in the existing project would probably be lost. Also lost would be the opportunity to protect the headwaters of Black Earth Creek, which fall within the study area.

Significance of Precedent

Expansion of the Cross Plains Reserve would not set a precedent, as state-owned and managed properties have been expanded over the years on a case-by-case basis. Nor is partnering with other governmental bodies and private organizations in this kind of expansion precedent setting. Boundary expansion would commit WDNR and its partners to long-term management of the area's natural resources.

Significance of Controversy Over Environmental Effects

Due to high property values in this area and the probable competition with developers for many of the same parcels, decision makers may wish to weigh the cost-benefit value of this proposal versus other acquisition/management proposals forwarded by WDNR.

Likely, broad support would be forthcoming from the surrounding communities, environmental groups and other governmental bodies such as Dane County and the U.S. Department of the Interior.

It is the policy of the Natural Resources Board to acquire land within a project boundary from willing

sellers or through donations. The use of scenic and conservation easements are important additions to fee acquisition. Lands purchased will be removed from the tax roll and the Department will make a payment in lieu of taxes. The payment in lieu of taxes is equal to property taxes normally paid on that land, is distributed to the various taxing jurisdictions. There will be no noticeable loss of revenue to the local school district, City or County, nor will any land acquisition have a negative impact on regional land values.

APPENIX A

BACKGROUND ON THE ICE AGE SCIENTIFIC RESERVE

The Ice Age National Scientific Reserve consists of nine separate units in Wisconsin exhibiting outstanding evidence of the last, or Wisconsin, stage of continental glaciation that began receding from its furthest advance 15,000 years ago. The units are: Two Creeks Buried Forest, Northern Kettle Moraine State Forest, Campbellsport Drumlins, Horicon Marsh Wildlife Area, Cross Plains, Chippewa Moraine State Recreation Area, and Devil's Lake, Mill Bluff, and Interstate State Parks (see maps in Appendix C). The Cross Plains Reserve is managed by the Wisconsin Department of Natural Resources (DNR) under a cooperative agreement with the National Park Service. The legislation establishing the reserve authorizes Federal financial assistance to the State for operating and maintaining the reserve--up to 50 percent of the annual cost. Congress appropriated \$806,000 in Fiscal Year 1999.

At the Cross Plains unit, the DNR currently owns about 160 acres containing portions of the terminal moraine and impressive meltwater drainage ways. To the south are the meltwater basins that fed the drainage ways. One of these basins lies within a 160-acre tract owned by the U.S. Fish and Wildlife Service. It has been restored as a wetland. To the west are the unglaciated lands of the Drifless Area. To the north lies the enormous drainage way that carried glacial meltwater from the Madison lakes basin to the Wisconsin River. Immediately east is suburban residential development.

APPENDIX B

MAPS

1. General locator map also showing watershed boundary for Black Earth Creek
2. Proposed boundary and public ownership map (i.e. relief map)
3. Statewide Ice Age Trail and Reserves map

COMPLIANCE WITH THE ENVIRONMENTAL POLICY ACT

Project Name: Cross Plains Unit, Ice Age National Scientific Reserve Study Area

County: Dane

DECISION (This decision is not final until certified by the appropriate authority)

In accordance with s. 1.11, Stats., and Ch. NR 150, Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

Complete either A or B below:

A. EIS Process Not Required

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

B. Major Action Requiring the Full EIS Process

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator <i>Dorelle Johnson</i>	Date Signed Dec 3, 98
Noted: Regional Staff Specialist or Bureau Director	Date Signed

Number of responses to news release or other notice: _____

CERTIFIED TO BE IN COMPLIANCE WITH WEPA	
Regional Director or Environmental Impact Coordinator (or designee) <i>R. Anderson</i>	Date Signed 12/8/98

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.

APPENDIX D
Public Involvement Log

(For more information request entire log)

6/11/97	Letter sent to landowners re: open house on June 23
6/23/97	First informational open house held in Town of Cross Plains to present feasibility study
8/ 6/97	Letter sent to local government officials re: 9/11 meeting
9/11/97	'Governmentals' meeting re: feasibility study
6/ 1/98	DNR assigns new feasibility study coordinator after David A. retires
6/28/98	Letter to landowners; project update and announcement of informational open house
7/ 2/98	Letter to local government officials as well as legislators re: project update and announcement of informational open house
7/29/98	Article in the Capital Times; 'Ice Age Reserve Expansion Planned' by Karyn Saemann
8/10/98	Packet announcing informational open house with FS and map mailed to attached mailing list
8/10/98	Press release re: informational open house
8/20/98	Article in the Wi. State Journal; 'Plan seeks to save slice of geology' by Ron Seely
8/20/98	Second informational open house held in the Town of Cross Plains to receive comments on draft feasibility study / map of study area and to give people opportunity to take a geological tour of the area. 69 citizens / local government officials attended the open house to discuss the study area and feasibility study. Five vans full of people went on a tour of the area. People who took the tour were enthused with the opportunity to view the landscape from a geological perspective. All the study team members helped to make this event a success.
9/ 3/98	Article in the News-Sickle-Arrow; 'DNR hopes to Expand Ice Age Reserve Unit' by Reed Andrew
10/ 2/98	Field trip invitation sent to landowners / government officials / other interested citizens
10/17/98	Press release re: field trip
10/16/98	Study team coordinator and team member call all landowners and officials re: field trip; reminder call
10/17/98	Field trip to Shoveler's Sink and the existing Cross Plains Ice Age Reserve
11/02/98	Letter to local / state government officials see attached re: timeline and invitation to meet

**Comments on the Cross Plains Reserve Feasibility Study
August, 1998**

Landowner comments:

This is a good idea. Hopefully you'll get the approval of most of the landowners. The only concern I have is keeping parking areas away from homes.

Rita Dodge, landowner

I love the project and support it. You must continue to help people realize just how special it is. Regular programs with informed speakers and dramatic printed materials filled with information will help.

John A. Rafoth, 7966 Old Sauk Rd., Cross Plains

Others comments:

I'm very supportive of the proposed annexation of additional land at the Cross Plains Reserve. This is a unique area close to a major group of users. Development is proceeding so fast in these areas and we need to secure this open space. Madison and surrounding area are attractive partly because of the landscape and open spaces. Let's keep what we can for everyone to enjoy.

No signature

We're really interested in this becoming a real ice age park!

Has any attempt been tried at acquiring Capital Sand & Gravel - it would make a fine visitor & interpretative center as the geological features have all already been compromised.

If the park becomes a reality and it becomes over-used would you temporarily close it to the public?

Dave & Bobbie Fehr, 7987 Deer Run Rd., Cross Plains

Excited and approve of the proposed Cross Plains Reserve! This area needs more open space and less development. The Ice Age Trail should be preserved for future generations - the beauty is outstanding, We hope the dream becomes a reality.

Pat and Dan Sommers, Deer Run Rd., Cross Plains

I feel that this project is an excellent idea. It will provide an excellent educational area for local schools in the areas of geology and biological sciences. It also preserves these significant features for future generations. In an area where development pressures are high it also provides significant open space and area for groundwater recharge. The area will also provide a possible route for the Ice Age Trail so visitors can fully appreciate this unique and valuable educational asset.

Dan Wallace, 2286 Branson Rd. Oregon

As we watch in dismay at the unrelenting march of development across the Dane County landscape, this project is essential to preserve the remnants of the historical, natural and geological landscape of Dane County. Those who follow us in the next century will praise our foresight. This project should be on the top of our list of priorities.

As a landowner in another part of Wisconsin, I would be honored to have my land preserved for future generations.

Dave Phillips, 1629 Baker Ave., Madison

Great Idea. - I hope you have a lot of trails.

Todd Peterson, 4455 Rocky Dell Rd., Middleton

We live in Middleton Township on 380 acres that are left of an old farmstead—we value the open spaces and we would like to see them preserved insofar as possible. Of course our land isn't in the proposed preserve area, so our perceptions may be somewhat different from those of people who are in the proposed area. But we support the efforts of the Park Service and the DNR to acquire the property and to preserve the "glaciers edge."

Thank you for a most informational afternoon.

Wayne Otto, 3383 Sugar Maple Lane, Verona

We are definitely in favor of the DNR protecting our lands. We would like to see these lands preserved for the future generations as well as for current utilization ie hiking, biking, studies, horse back riding, limited camping. We wish to support the DNR in its endeavor to establish the Ice Age National Scientific Reserve.

Terry & Peggy Crowley, 7873 Windemere, Cross Plains

The Cross Plains Reserve is not only a good idea it's an opportunity to preserve important geological land. It doesn't take any talent to construct another subdivision which are monuments to poor land use planning. Important geological features should be preserved in parks for people to have a place for esthetic solitude & quiet recreation while they learn about geology & how the world works & they're rather 'small component' in it.

Bonnie Wise, 3254 Timber Lane, Verona

This area needs protection.

If only a small area is added to the existing reserve or if no area is added then the gorge & other protected zones will be over visited as the surrounding area is developed.

I'm strongly in favor of the proposal.

Tom Wise, 3254 Timber Lane, Verona

Additional comments received in September on Cross Plains FS
October, 1998

from landowners within the proposed boundary:

My wife, Carol Geiger and I think expansion of the Reserve is a very good idea. Expansion would indeed allow the geographical area to avoid extensive encroachment by residential development.

I hiked at the Black Hawk Unit of the Wisconsin River Waterway last week and very much enjoyed the trails and views there. Similar trails at an expanded Cross Plains Reserve would allow similar hiking even closer to Madison.

Mark Jeffries

comments from other citizens:

see attached from David Flesch, Connie Perkins (Mike Coyle's sister) and Don Ferber

September 3, 1998

DANIELLE VALVASSORI
DNR SOUTH CENTRAL REGION
3911 FISH HATCHERY RD
FITCHBURG WI 53711

Re: Ice Age Reserve

Dear Ms. Valvassori:

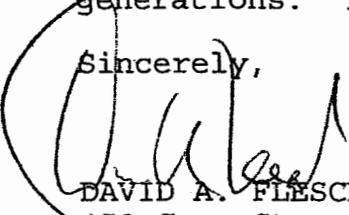
I would like to express my support of the plan to expand the Ice Age Reserve Area between Shoveler's Sink and Hwy 14.

I first became aware of the outstanding glacial features in Dane County 30 years ago an introductory geology course at the university taught by Dr. Laudon. Since then I have shared my enthusiasm for the area with family, friends and anyone else who would listen.

Walking towards Black Earth Creek down the gorge created by the glacial runoff and feeling the temperature drop or sitting on the edge of the sink listening to the birds is something I hope people will be able experience in the future.

Expansion of the Reserve will preserve this unique area for future generations. Thank you for your excellent work on this project.

Sincerely,



DAVID A. FLESCH
458 Jean St.
Madison WI 53703
257-1003

To: Valvassori, Danielle F
Subject: Cross Plains Ice Age Reserve

Danielle,

Enclosed below is my note in support of the Cross Plains Ice Age Reserve.
Hope you survived all those hearings okay!

Don

I would like to support the primary alternative proposed for the Cross Plains Ice Age Reserve as a minimum. As a volunteer and strong advocate for the Ice Age National Scenic Trail, I have seen much of the landscape of the surrounding area and think that expansion of the Reserve would help preserve a prime area of wonderful glacial geology and offer a link to other key areas. The expansion of the Madison Metropolitan area not only means that it is essential that this area be acquired as soon as possible, but the amount of urban growth west of Madison also indicates that green space resources in this area will be much in demand and that we need to protect as much of this vital area as possible, especially where ecological issues are concerned. With the wonderful combined support of Federal agencies, the Wisconsin DNR, Dane County Parks, and the public interest, this is a plan that should be moved on as expeditiously as possible.

Thank you for this opportunity to comment.

Don Ferber
4700 Allis Ave.
Madison, WI 53716

9/9/98

Danielle Valvassori,

I want to thank you, and all involved, for the wonderful opportunity made available to the public, on August 20, in Pine Bluff, re: The Cross Plains Ice Age Reserve Feasibility Study.

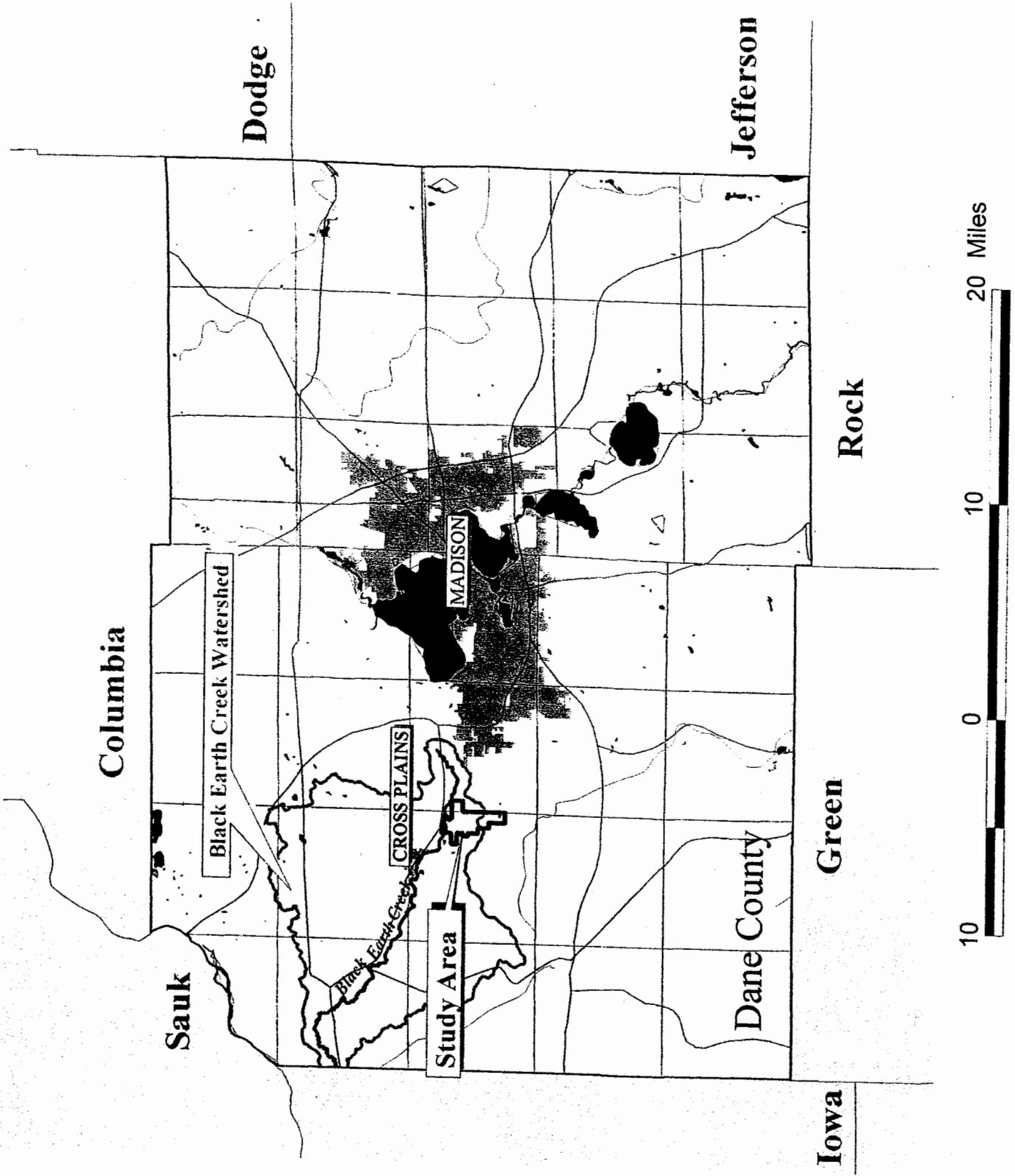
The tour provided was most educational. I lived in the area for many years, but never appreciated the geological history until the tour. I used to look at the land around Coyle's Pond as fields, or pieces. I never really looked at the land as a whole picture. Seeing the land, the ridges, as a whole, was fascinating. It was wonderful to see this big picture, the moraine on one side, the ridge on another and the water held between. I could really see the geological story.

As an interested citizen, I hope that the land surrounding the Coyle Pond can become a part of the Cross Plains Reserve. It would be a travesty if, someday, that land were to become another suburban development. We need to preserve that geological story for future generations. The story would be lost if the land becomes dotted with rooftops.

Thank you, and all, for your work on this project.

Connie Perkins
4133 Mandan Crescent
Madison, WI 53711

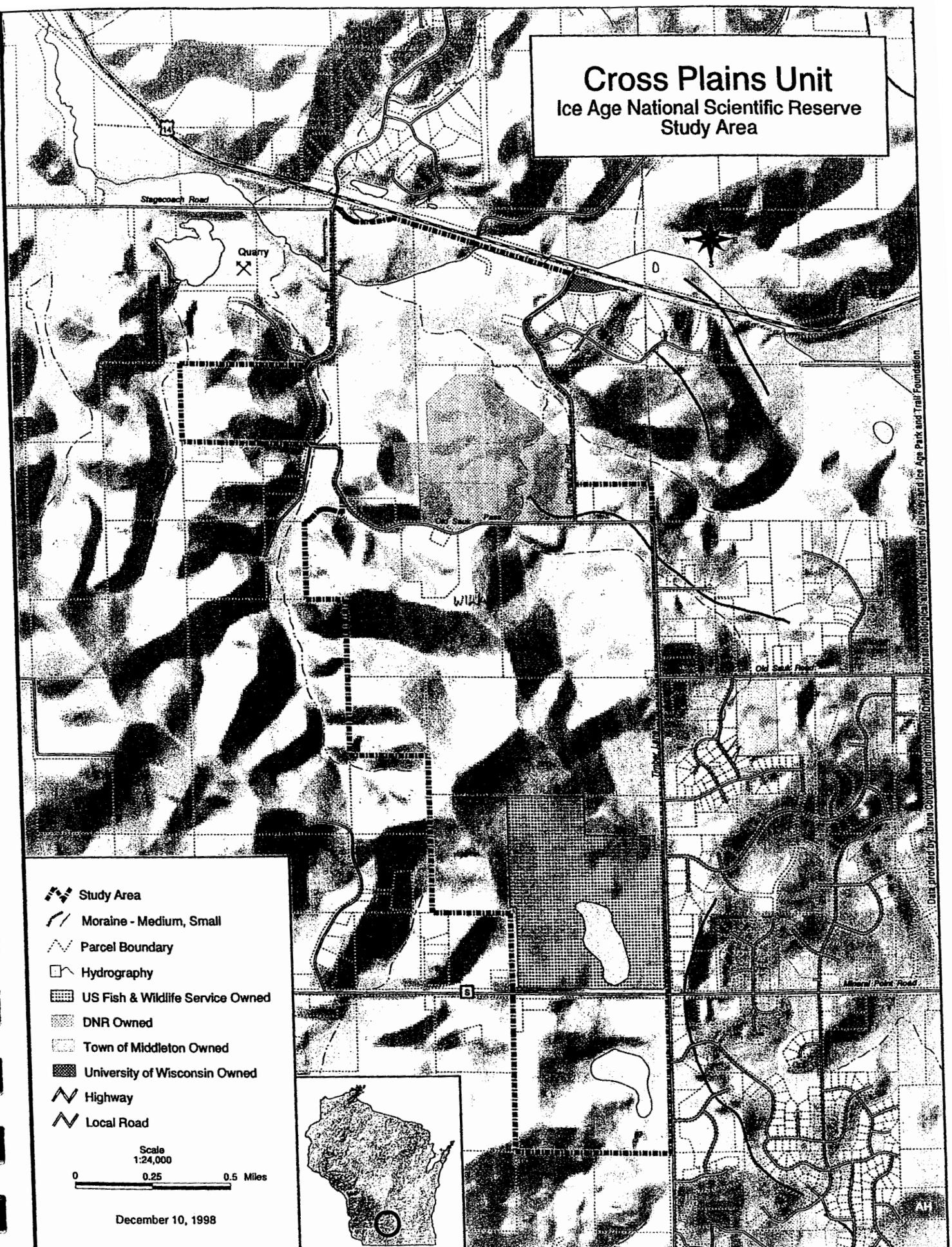
Figure 1. Locator map of study area.



Cross Plains Unit

Ice Age National Scientific Reserve

Study Area



- Study Area
- Moraine - Medium, Small
- Parcel Boundary
- Hydrography
- US Fish & Wildlife Service Owned
- DNR Owned
- Town of Middleton Owned
- University of Wisconsin Owned
- Highway
- Local Road

Scale
1:24,000

0 0.25 0.5 Miles

December 10, 1998



Data provided by: Dane County Land Information Office, Wisconsin Department of Natural Resources, University of Wisconsin, and Ice Age Park and Trail Foundation

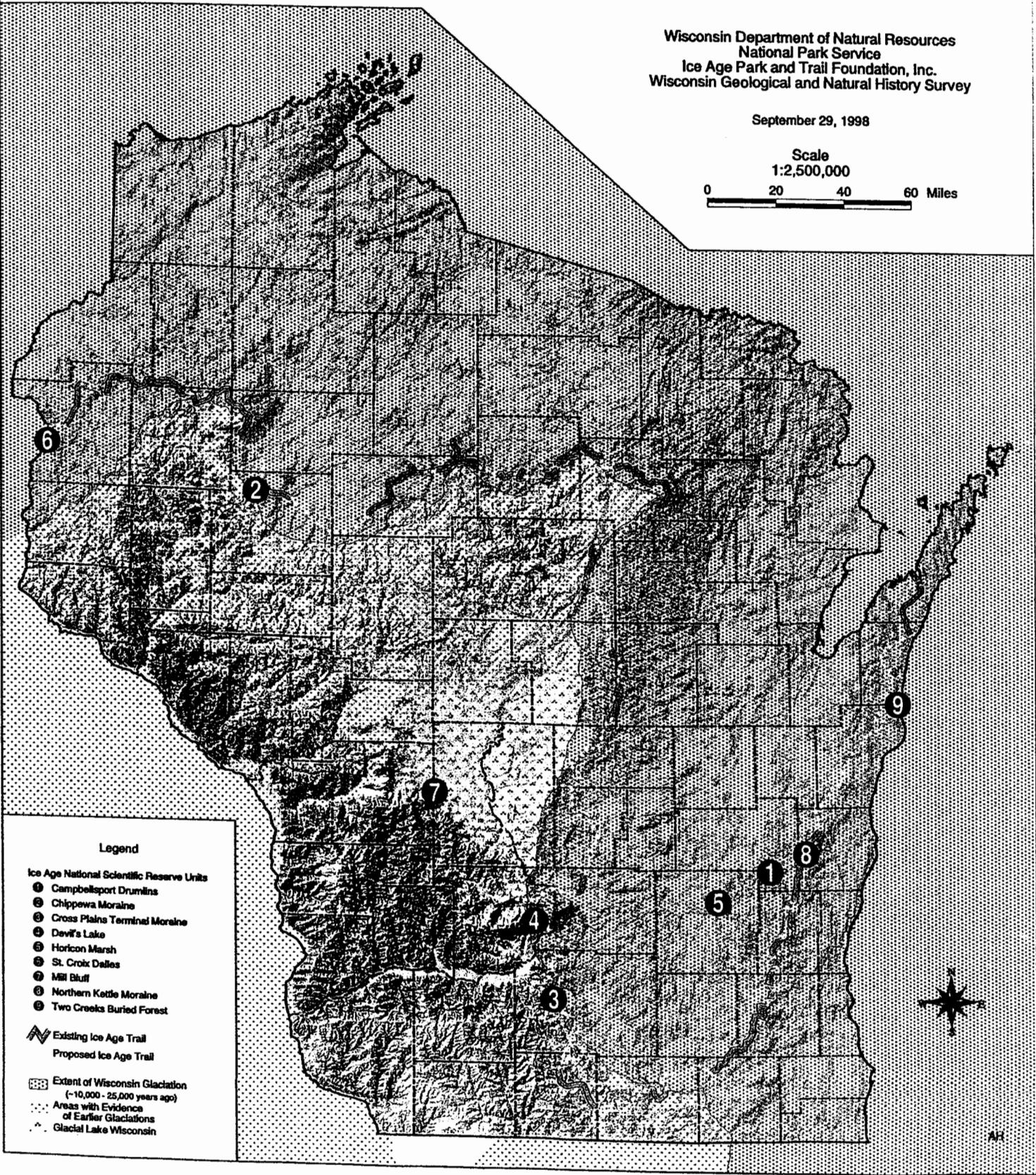
Ice Age National Scientific Reserve & Ice Age National Scenic Trail

Wisconsin Department of Natural Resources
National Park Service
Ice Age Park and Trail Foundation, Inc.
Wisconsin Geological and Natural History Survey

September 29, 1998

Scale
1:2,500,000

0 20 40 60 Miles



Legend

Ice Age National Scientific Reserve Units

- ① Campbellsport Drumlins
- ② Chippewa Moraine
- ③ Cross Plains Terminal Moraine
- ④ Devil's Lake
- ⑤ Horicon Marsh
- ⑥ St. Croix Dunes
- ⑦ Mill Bluff
- ⑧ Northern Kettle Moraine
- ⑨ Two Creeks Buried Forest

- Existing Ice Age Trail
- - - Proposed Ice Age Trail

- ▨ Extent of Wisconsin Glaciation (-10,000 - 25,000 years ago)
- ⋯ Areas with Evidence of Earlier Glaciations
- ▲ Glacial Lake Wisconsin

