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EXECUTIVE SUMMARY

With only a very small portion of Michigan's original landscape remaining, it is integral to the mission of the Michigan Department of Natural Resources (MDNR) to protect representative examples of the native ecosystems and unique natural features that remain. Natural areas¹ are recognized internationally as an important tool for managing ecosystems, associated natural resources, and safeguarding our natural heritage. In Michigan, it is the role of the Natural Areas Program to coordinate the identification, protection, management and administration of natural areas. The Natural Areas Program currently recognizes 80 State Natural Areas, totaling approximately 130,000 acres of MDNR administered lands and waters. These areas, together with the many natural areas managed by other public and private organizations and individuals, make up a statewide "system" of natural areas.

A working group was established in April 1997 by George Burgoyne, then Chief of the Wildlife Division, to address the needs of the Natural Areas Program. The group, comprised of representatives from each Division, was asked to:

1. "Develop and recommend to the Division/Bureau Chiefs a common direction for natural areas on Department administered lands."
2. "Recommend immediate and long-term actions to implement this common direction."

The working group's recommendations will maximize the chances for long-term success of the Department's efforts to ensure that Michigan continues to have a Natural Areas System of which we can be proud.

Natural Areas Working Group

The Natural Areas Working Group began by creating vision and mission statements for the Natural Areas Program, to give the Working Group and the Department a common direction for natural areas planning and management.

Vision Statement: We envision that in Michigan there exists an extensive system of representative, high quality, and ecologically viable natural areas on public and private lands reflecting Michigan's rich and diverse native natural heritage.

We envision a system through which: biodiversity conservation is enhanced; natural areas are an essential element of ecosystem management; natural areas serve as native reference systems for developing sustainable production of wildlife, aquatic life, forest products, and other renewable resources; the public is provided with unique recreational opportunities; and valuable and important research and educational experiences are available.

Mission Statement: The mission of the Natural Areas Program is to identify, establish, maintain and administer a system of high quality, representative, and ecologically viable natural areas in Michigan. To do this we will:

- Continue to assure that consideration of natural area values and benefits are a component of resource management decisions, through cooperation with Department Divisions, Bureaus and Offices, State, Federal and international agencies, and local units of government.
- Continuously review the best available information in order to identify potential new natural areas and dedicate or otherwise protect those for which it is appropriate.
- Continue to provide for the professional management (e.g., stewardship) of natural areas and to assure that existing areas are properly maintained.
- Continuously communicate the value of natural areas to the public.
- Continuously seek innovative means of providing adequate and stable resources for the program.
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Natural Areas Working Group Recommendations

The Department recognizes and accepts the necessity of, and responsibility for, managing natural areas in Michigan.

LONG-TERM ACTIONS

- Commit to ongoing cooperation across the Department. Continue the current arrangement of a formal liaison to the Natural Areas Program within each resource managing Bureau/Division.
- Consider natural area values in joint management efforts, even if there is not a natural area designated.
- Complete the natural features inventory of all lands and waters in Michigan for identifying new natural areas.
- Provide adequate staffing for natural areas management, including full-time, field-based, Stewardship Ecologists.
- Develop, populate, and continuously update a Geographic Information System (GIS) of natural areas data that will be available to all Department staff through the MDNR Spatial Data Library.
- Provide a stable source of funds for natural areas management.
- Develop and implement a stewardship/management plan, based upon a standardized model, for each natural area.
- Develop and implement an ongoing plan for strategic outreach.
- Develop a statewide volunteer stewardship network for natural areas.
- Integrate “State Natural Areas” into the common terminology of the Department, along with “State Parks,” “State Game Areas,” “State Forests” and “State Recreation Areas.”

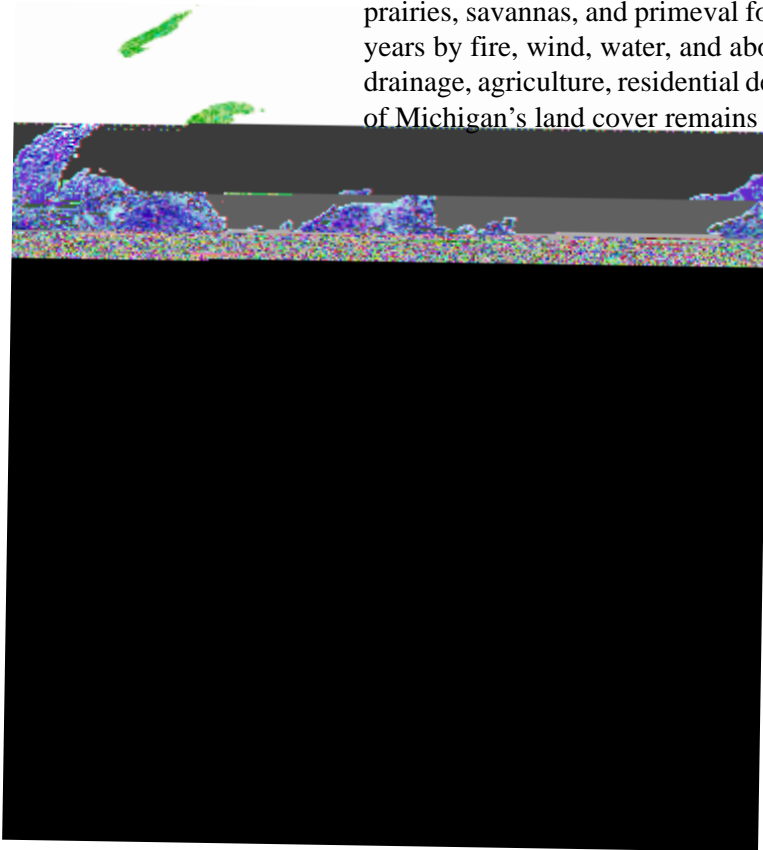
IMMEDIATE ACTIONS

- Raise the Department’s awareness of State Natural Areas
 - Hold an annual meeting of Department resource managers that work with lands or waters directly associated with a State Natural Area.
 - Initiate on-site visits with Department resource managers.
 - Establish a calendar or timeline of when natural area nominations will be requested and accepted.
 - Post boundaries on all State Natural Areas.
- Ensure ecoregional teams integrate natural areas into their planning efforts.
- Complete a biological inventory for each State Natural Area.
- Create limited-term field positions to assist with immediate needs and urgent threats to State Natural Areas.
- Re-initiate a formal dedication process.
- Develop protocol to acquire and manage State lands solely as natural areas, when no other managing unit (State Park, State Forest, State Game Area, etc.) is adjacent or in the general area.
- Use new funding sources to implement the strategic plan, including:
 - Conservation and Reinvestment Act (CARA) – federal income from offshore oil & natural gas leases
 - Critical Nongame Wildlife Habitat Fund-Raising Rate
- Clarify the boundaries of State Natural Areas and make them available electronically
- Complete a baseline assessment of each State Natural Area for immediate/management needs.)

Areas for biological integrity W591.9worsingGr

The Natural Areas System

Michigan's unique landscape was shaped by glaciers and its climate is defined by the presence and magnitude of the Great Lakes. A myriad of natural communities and interconnected ecosystems, including open dunes, coastal marshes, prairies, savannas, and primeval forests, resulted from modifications over the last 10,000 years by fire, wind, water, and aboriginal resource management. As a result of logging, drainage, agriculture, residential development and urbanization, only a very small portion of Michigan's land cover remains as it was 150 years ago.



Areas that have retained the best examples of Michigan's native landscapes, ecosystems, natural communities or scenic qualities are recognized throughout Michigan as natural areas. Features used to identify natural areas include: size, uniqueness, pristine nature, aesthetic or scenic qualities, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. To be legally dedicated, natural areas must also contain ecological, geological, or other features of scientific, scenic, or natural history value. Many areas also have populations of endangered and threatened species.

Natural areas occur on public and private lands. They may be legally dedicated by State or Federal statute, administratively recognized by public agencies, or recognized by conservation organizations, private corporations and individuals. Together these areas comprise a larger statewide "system" of natural areas which helps to protect, preserve, and restore representative, viable examples of Michigan's and the Great Lakes Region's natural heritage.

Natural Areas on State-Owned Land

Eighty natural areas on state-owned land are recognized as being documented and secure. This includes 20 areas that are legally dedicated and 18 that were dedicated by the Natural Resources Commission, prior to the 1972 Wilderness and Natural Areas Legislation. Most areas have multiple, overlapping forms of protection that also include National Natural Landmarks, Proposed Wilderness, Wild and Natural Areas, Park/Forest/Recreation Area Management Plans, and

A Brief History of Natural Areas in Michigan

Timeline of the Natural Areas Effort in Michigan

P. J. Hoffmaster and others recommend acquisition of the Porcupine Mountains.

Wilderness Tracts and Trails Committee of the Southeast Chapter of the Michigan Botanical Club (MBC) formed.

Porcupine Mountain State Park established.

P. J. Hoffmaster requests the Michigan Botanical Club make scientific surveys on state parks to assist in the Department's park planning effort.

Haven Hill Ecology Trail and Nature Preserve Subcommittee of the Wilderness Tracts and Trails Committee, MBC formed to provide recommendations to the Department.

Michigan Natural Areas Council (MNAC) established from the Wilderness Tracts and Trails Committee.

Following the recommendations of the MNAC, 76,175 acres on State land dedicated as Natural Areas via Natural Resource Commission resolutions.

Advisory Council for Natural Areas established via State of Michigan Executive Order, 1971-5 by Governor Milliken.

Wilderness and Natural Areas Act 241, PA of 1972 passes.

Wilderness and Natural Areas Board (WNAB) appointed by Governor Milliken.

Wilderness and Natural Areas Program responsibilities transferred to Office of Land Use, Division of Land Resource Programs.

Michigan Natural Features Inventory (MNFI) established in Office of Land Use, Division of Land Resource Programs, via a MDNR contract with The Nature Conservancy.

MNFI was established to complete a state wide inventory of endangered, threatened, and special concern species and high quality natural communities and to establish a database of their occurrences in order to determine priorities for protection, including Natural Area dedication of State and private lands.

Michigan Natural Heritage Recommendations prepared by Ron Kapp, Chair of WNAB, lead to positive changes in the Wilderness and Natural Areas Program.

Natural Heritage Program Evaluation Task Force Report (1992) and Michigan Natural Heritage Inventory (1993) lead to the establishment of the Michigan Natural Heritage Trust (MNHT) and the Michigan Natural Heritage Trust Fund (MNHTF). MNAC, 76,175

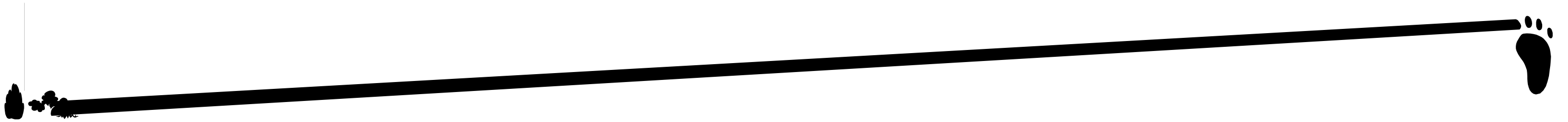
How does the MDNR currently protect and manage natural areas on state lands?

It is the role of the Natural Areas Program to coordinate the natural areas system in Michigan and to ensure that the elements of the system are protected. In addition, the Program ensures that MDNR Divisions/Bureaus are able to recognize and protect natural area elements. Natural Areas Program staff consists of one full time Coordinator and a Natural Heritage Specialist shared with other programs.

The Coordinator works cooperatively and strategically with liaisons from Forest Management Division, Parks and Recreation Bureau, and Wildlife Division to incorporate agreed upon stewardship activities into annual work plans. To help facilitate this, site conservation and management plans are being developed for selected natural areas. While it is the role of the managing Divisions/Bureaus to implement management goals and objectives, assistance is provided as needed by the Wildlife Division Lansing and District staff.

Examples of current Natural Areas Program efforts:

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Legal Authority And Other Related Legislation

Part 5, “Department of Natural Resources,” of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, being section 324.501 *et seq.* of the Michigan Compiled Laws.

Part 351, “Wilderness and Natural Areas,” NREPA, 1994 PA 451, being section 324.35102 of the Michigan Compiled Laws.

Michigan Department of Natural Resources Commission Policy No. 2704 Dated June 8, 1979.

Michigan State Park Policy based on Part 741, “State Parks System,” being section 324.74101 *et seq.* of the Michigan Compiled Laws, and Part 5, “Department of Natural Resources” *Supra*, of NREPA, 1994 PA 451.

National Natural Landmark Program, Federal Historic Sites Act of 1935 and section 2 of Reorganization Plan No. 3 of 1950.

Endangered Species Act of 1973, Public Law 93-205 as amended.

Part 365, “Endangered Species Protection,” NREPA, 1994 PA 451, being sections 324.36501 *et seq.* of the Michigan Compiled Laws.

Part 439, “Non-game Fish and Wildlife Trust Fund,” NREPA, 1994 PA 451 being section 324.43901 *et seq.* of the Michigan Compiled Laws.

Part 355, “Biological Diversity Conservation,” NREPA, 1994 PA 451, being section 324.35501 *et seq.* of the Michigan Compiled Laws.

National Trails System, Public Law 90-543.

Wild and Scenic Rivers Act of 1968, Public Law 90-542.

Wilderness Act of 1964, Public Law 85-577.N

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NATURAL AREAS PROGRAM STRATEGIC PLAN

Vision Statement

We envision that in Michigan there exists an extensive system of representative, high quality, and ecologically viable natural areas on public and private lands reflecting Michigan’s rich and diverse native natural heritage.

We envision a system through which:

- Biodiversity conservation is enhanced.
- Natural areas are an essential element of ecosystem management.
- Natural areas serve as native reference systems for developing sustainable production of wildlife, aquatic life,

Natural Areas Program Strategic Plan 2010-2015

ELEMENT 1:

ELEMENT 2: Continuously review the best available information in order to identify potential new natural areas and dedicate or otherwise protect those for which it is appropriate.

Strategic Outcome 2.1: A state-wide Nat

ELEMENT 3: Continue to provide for the professional management (i.e., stewardship) of natural areas and to assure that existing areas are properly maintained.

Strategic Outcome 3.1: A database of all existing natural areas has been developed and is continuously updated.

- 3.1.1. Develop a natural areas relational database.
- 3.1.2. Develop a natural areas GIS that relates directly to the natural areas database.
- 3.1.3. Update the status (ecological and physical) of each natural area on a specified periodic basis.
- 3.1.4. Maintain an inventory of what biodiversity elements occur on each natural area.
- 3.1.5. Update the status of biodiversity element occurrences at each natural area on a specified periodic basis.
- 3.1.6. Continue to cooperate with Michigan Natural Features Inventory to identify and track biodiversity element occurrences on natural areas.
- 3.1.7. Create detailed individual maps (including element occurrences) of each natural area, available electronically and in hardcopy to on-site and off-site managers.

Strategic Outcome 3.2: A management plan exists for each natural area.

- 3.2.1. Complete an initial assessment of each State Natural Area for immediate management needs.
- 3.2.2. Complete a landscape analysis of each natural area (including lands adjacent to natural area) on a specified periodic basis and amend boundaries as necessary.
- 3.2.3. Utilize GIS technologies as tools for conservation and management planning.
- 3.2.4. Complete a site conservation plan for each natural area.
- 3.2.5. Complete a management plan for each natural area.
- 3.2.6. Complete a threat/risk assessment for each natural area on a specified periodic basis.
- 3.2.7. Coordinate management of State Natural Areas as much as possible with adjacent lands.
- 3.2.8. Identify ecosystem relationships between managed areas and consider how management actions on one may affect another.
- 3.2.9. Create a list of appropriate uses for each natural area and consider the necessary provisions for the uses.
- 3.2.10. Establish an ongoing research program for each natural area.
- 3.2.11. Explore the options of contracting resource management to a non-State organization at State Natural Areas where this might be beneficial.

Strategic Outcome 3.3: Utilizing an adaptive management approach, restoration of natural areas and processes and other stewardship activities are ongoing.

- 3.3.1. Implement site conservation and management plans at each natural area.
- 3.3.2. Using information in the natural areas database, determine the current status of areas and ecological processes.
- 3.3.3. Determine the optimal status of areas and ecological processes.
- 3.3.4. Create and implement a restoration plan for achieving the above “optimal status” at each natural area for which it is appropriate.
- 3.3.5. Create and implement a plan for invasive species control on each natural area.
- 3.3.6. Develop a GIS to track stewardship activities for each natural area.
- 3.3.7. Provide expertise and consultation for restoration and management methods and techniques (e.g., prescribed burns, exotics control, brush control, native plant species, ecological restoration, monitoring, site conservation planning).
- 3.3.8. Monitor stewardship outcomes to promote better informed management decisions in the future.
- 3.3.9. Provide grants for natural areas inventory, management, and monitoring.

Strategic Outcome 3.4: Utilize data and resources from Natural Areas System and System participants for better management of natural areas.

- 3.4.1. Complete a survey of all System participants to identify new areas that should be part of the System, or that need further protection.
- 3.4.2. Cooperate with System participants to develop a set of standard management guidelines for the Natural Areas System.
- 3.4.3. Partner with other System participants for greater management opportunities.

ELEMENT 4: Continuously communicate the value of natural areas to the public.

Strategic Outcome 4.1: The Natural Areas Program has an “identity” readily recognizable to the public.

- 4.1.1. Create an environment where natural areas are strongly identified with ecosystem management and biodiversity conservation.
- 4.1.2. Publicize the values of natural areas, including the benefits to fishing, hunting and trapping.
- 4.1.3. Demonstrate the benefits of restoration and active management in natural areas.
- 4.1.4. Create and utilize a natural areas logo.
- 4.1.5. Create individual maps and brochures, which will be available to the public, of each natural area for which they are appropriate.
- 4.1.6. Provide articles in publications and other written information to the public constituency.
- 4.1.7. Continue to provide information and resources via the DNR website.
- 4.1.8. Continue to contact and strengthen relationships with private landowners near natural areas.
- 4.1.9. Develop and utilize consistent signage (entrance and perimeter) for all natural areas.

Strategic Outcome 4.2: An ongoing plan for information and education exists.

- 4.2.1. Create and implement a strategic plan for outreach.
- 4.2.2. Cooperate with the Department Information and Education Office to provide accurate, timely, and quality information to the public.

Strategic Outcome 4.3: New and innovative methods of communicating the value of natural areas are continuously explored.

- 4.3.1. Create the opportunity for volunteer participation in restoration through public information meetings, workshops and workdays on natural areas.
- 4.3.2. Cooperate with other Divisions, Bureaus and Offices to provide educational material and interpretive displays at natural areas.
- 4.3.3. Create and make available to the public a guidebook to Michigan’s natural areas.
- 4.3.4. Utilize local, regional and national conferences to communicate the value of natural areas.
- 4.3.5. Create and distribute a natural areas newsletter.

ELEMENT 5:

ELEMENT 6: Continue to cooperate and establish and strengthen partnerships with organizations and volunteers dedicated to the preservation of natural areas (i.e., the natural areas community²).

Strategic Outcome 6.1: Strong relationships exist between the Natural Areas Program and others within the natural areas community.

- 6.1.1. Continue to cooperate with the Michigan Natural Features Inventory to identify new natural areas and track biodiversity element occurrences on existing and proposed natural areas.
- 6.1.2. Coordinate management of State Natural Areas with adjacent non-State owned natural areas.
- 6.1.3. Use workshops and workdays to encourage and strengthen relationships with non-State organizations and individuals.
- 6.1.4. Engage local communities and appropriate partners in the development of site conservation plans for selected natural areas.
- 6.1.5. Empower volunteer Natural Heritage Stewards through development and implementation of management plans for natural areas and annual workshops.
- 6.1.6. Explore the options of contracting natural areas management to a non-State organization at State Natural Areas where this might be beneficial.

Strategic Outcome 6.2: The Natural Areas Program has an “identity” within the natural areas community.

- 6.2.1. Continuously communicate with others within the natural areas community.
- 6.2.2. Coordinate data sharing opportunities within the Natural Areas System.
- 6.2.3. Survey others in the natural areas community for potential natural areas to be included in the Natural Areas System.
- 6.2.4. Include all others within the natural areas community when soliciting nominations for natural areas dedications.

² Natural areas community: conservation groups, land trusts, Natural Areas System participants, natural areas programs from other states, academic institutions, the Native American community, volunteer groups and Federal natural areas programs.