

Saugatuck Dunes State Park

General Management Plan

Phase 1



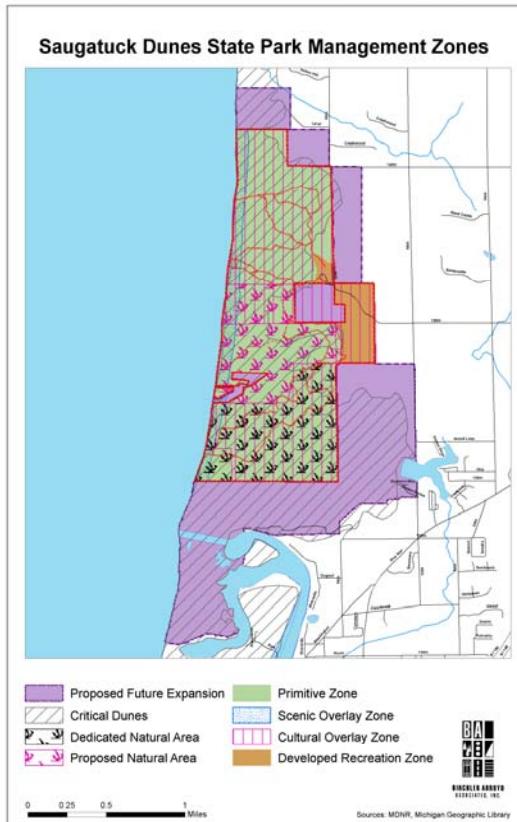
Approved March 29, 2010



General Management Plan

Long-range management guidance focused on the specific natural resources, historic-cultural resources, recreation opportunities and the education-interpretation opportunities of...

Saugatuck Dunes State Park



This project was funded, in part, by the Michigan Coastal Management Program, Department of Natural Resources and Environment, and the National Oceanic and Atmospheric Administration U.S. Department of Commerce.

The project was directed by Paul N. Curtis, Management Plan Administrator, Department of Natural Resources and Environment, Recreation Division with assistance from Birchler Arroyo Associates, Inc. and Jeff Johnson, Student Assistant.

PLAN APPROVALS:

Chief, Recreation Division

3/16/10
Date

Deputy Director, Stewardship

3/23/10
Date

Director, Department of Natural Resources and Environment

3/29/10
Date



DNRE



RESOLUTION NO. 12-2009-03

**RESOLUTION OF THE CITIZENS COMMITTEE FOR MICHIGAN STATE PARKS (CCMSP)
TO RECOMMEND APPROVAL OF THE
“SAUGATUCK DUNES STATE PARK – PHASE I – GENERAL MANAGEMENT PLAN”**

ADOPTED DECEMBER 9, 2009

WHEREAS, the Department of Natural Resources’ (DNR) Parks and Recreation Division has completed Phase I of the General Management Plan for Saugatuck Dunes State Park; and

WHEREAS, the planning process reflects sensitivity to natural resource values, historic and cultural resource values, recreation and education opportunities, and is inclusive of all DNR programs and representative of eco-management; and

WHEREAS, the planning process was further inclusive of stakeholder, constituent, and public input; and

WHEREAS, the General Management Plan represents sound guidance for future planning phases that will be consistent with the mission of the DNR and the Parks and Recreation Division, and reflective of the purpose and significance of Saugatuck Dunes State Park; and

WHEREAS, the General Management Plan has been reviewed and recommended for approval by the Parks and Recreation Division Management Team and the CCMSP Stewardship Subcommittee.

THEREFORE, BE IT RESOLVED, that the Citizens Committee for Michigan State Parks approves the Phase I – General Management Plan for Saugatuck Dunes State Park; and

THEREFORE, BE IT FURTHER RESOLVED, that the Citizens Committee for Michigan State Parks recommends and approves of the “Specific Provisions” attached hereto; and

THEREFORE, BE IT FURTHER RESOLVED, that the Citizens Committee for Michigan State Parks recommends approval of the Phase I – General Management Plan for Saugatuck Dunes State Park by the DNR Director; and

THEREFORE, BE IT FURTHER RESOLVED, that upon DNR Director approval of the Phase I – General Management Plan for Saugatuck Dunes State Park, the Citizens Committee for Michigan State Parks approves of the DNR Parks and Recreation Division initiating planning efforts for the Phase II – Long Range Action Plan for Saugatuck Dunes State Park.

Submitted by: Ron Olson, Chief, DNR-Parks and Recreation, via the
Citizens Committee for Michigan State Parks

Motioned by:	Mary Pitcher	Yea:	8
Seconded by:	Chris Graham	Nays:	0
		Abstained:	0
		Absent:	6

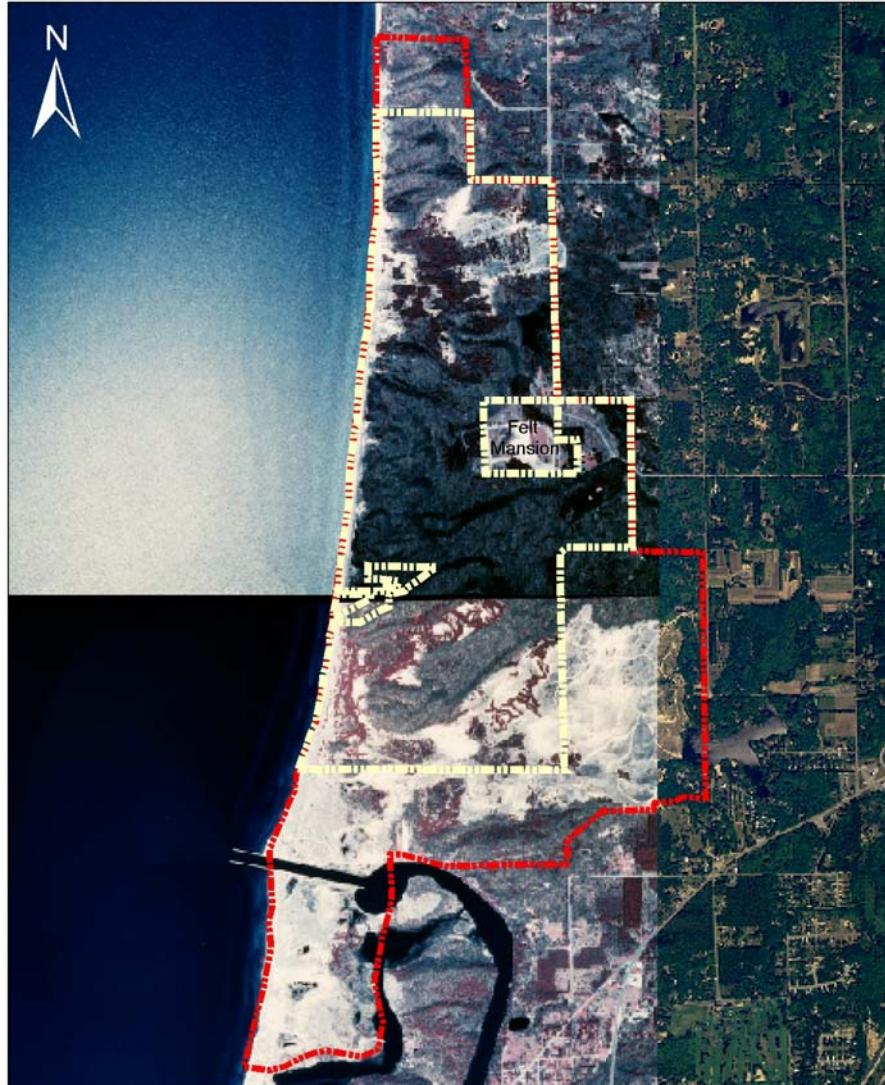
This Resolution was adopted by the Citizens Committee for Michigan State Parks at their meeting held on December 9, 2009.

RESOLUTION NO. 12-2009-03

**“SAUGATUCK DUNES STATE PARK – PHASE I – GENERAL MANAGEMENT PLAN”
SPECIFIC PROVISIONS**

- That any necessary language improvements may be made by DNR Parks and Recreation staff prior to submitting the plan to the DNR Director for approval.
- That the DNR proceed with the recommended Natural Area Designation as proposed in the plan.
- That the DNR give high priority to in-holdings and other land acquisitions as proposed in the plan.
- That upon the DNR Director’s approval, the approved plan be transmitted to local recreation partners and providers.

Saugatuck Dunes State Park



Park Boundary

Dedicated NRC Boundary

0 0.25 0.5 1 Miles

BA
W8/
T1E

BACHLER ARROYO
ASSOCIATED, INC.

Sources: MDNR, Michigan Geographic Library

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Note: During the development process for this General Management Plan, the State of Michigan combined the Department of Natural Resources and the Department of Environmental Quality, forming the Department of Natural Resources and Environment (DNRE).

Every effort has been made to insert the new department name into this document. Note that the extensive mapping created from then-DNR data will be available from the DNRE and is fully intended to represent the future general management plans for the DNRE.

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Executive Summary

Management Planning is a defined strategic process within the RD Strategic Plan (2009), reflecting the following Goals and Objectives:

- Goal 1, Objective 1.2: “Strengthen, update, and implement Management Plans.”
- Goal 3, Objective 3.1: “Perform landscape level assessment of recreation opportunities in decision making.”
- Goal 8, Objective 8.1: “Continue to use the CCMSP, MSWC, NRC, SWC, and Ecoregion Teams and partners to advise in RD planning, policy development, and issue resolution.”

Saugatuck Dunes State Park is approximately 994 acres and is located in Allegan County, on Lake Michigan. The Phase I General Management Plan (GMP) process for Saugatuck Dunes State Park was made possible, in part, by funding provided by the Michigan Coastal Management Program. The Department of Natural Resources and Environment (DNRE) Recreation Division (RD) oversaw the planning process. The endeavor represents a new planning philosophy of the RD. “Management Planning,” a comprehensive, resource-based process, is the RD’s adaptation of National Park Service planning methodology. During Phase 1, the GMP focuses on the four principles of the RD Mission Statement: to acquire, preserve and protect; (1) natural resources, (2) cultural resources, (3) provide public recreation, and (4) provide educational opportunities. The process includes a thorough inventory of the natural and historic/cultural resources, recreational opportunities and educational and interpretation opportunities at Saugatuck Dunes State Park.

With this base of knowledge and input of the Planning Team (made up of DNRE Department staff, government officials, stakeholders and the public), the Core Values for Saugatuck Dunes were developed. Saugatuck Dunes State Park was determined to be significant for the following reasons:

1. Saugatuck Dunes State Park offers the public 2.5 miles of pristine Lake Michigan shoreline.

2. Saugatuck Dunes State Park contains fresh water coastal dunes over 200 feet tall, with terrain varying from steep slopes to rolling hills. Three elements are represented in this park: open dunes, mesic southern forest and interdunal wetland.
3. Saugatuck Dunes State Park provides year-round opportunities for recreation, education and enjoyment within a natural setting and allows access to Lake Michigan.
4. Most of Saugatuck Dunes State Park lies within the designated critical dune area, which is subject to statewide development restrictions pursuant to the Sand Dunes Protection Act of 1978.
5. The park also contains a dedicated Natural Area due to its significance of open dunes, mesic southern forest, interdunal wetlands, large blowouts, and wooded dunes. Pitcher's thistle, listed as threatened by the state and federal governments, occurs within this area. In addition, migrating birds, including the State-endangered prairie warbler, use the red oak dominated forested dunes in the spring and fall.
6. Cultural resources found in Saugatuck Dunes State Park include the historic Felt Mansion (owned and operated by Laketown Township) and the associated Felt Farm, as well as a history of artists inspired by the park's beauty.
7. The Felt family's history of environmental stewardship and alternative energy development has significant potential to provide educational opportunities.
8. Dune restoration is on-going at Saugatuck Dunes State Park to replace non-native and inappropriate vegetation with native plantings

Considering the identity and significance of Saugatuck Dunes State Park, the Planning Team, with stakeholder and public input, established appropriate Management Zones and their extent of influence on the property. From a palette of nine standard zones, four were applied to Saugatuck Dunes State Park. The Management Zone Map and a thorough review of each Management Zone are found in Section 3 of this Plan. A condensed review of the Management Zones is as follows:

- Primitive Zone, approximately 949 acres (95%) of the park, reflects a desired condition that emphasizes the natural resources. Almost all of Saugatuck Dunes State Park, comprising the designated Critical Dunes area, will be Primitive Zone and will be managed to only allow dispersed and low frequency use for low impact recreational purposes.
- Scenic Zone, approximately 99 acres (10%), recognizes that there are aesthetic qualities to be preserved and protected in the Park. While there

are many, those identified during the planning process, and noted on the management zone plan, is the portion of the park along Lake Michigan.

- ❑ Cultural Overlay Zone, approximately 787 acres (79%), recognizes that there are not only historical structures, but also non-structural evidence of the traditions, beliefs, practices, lifeways, arts, crafts and social institutions of any community. The former Felt estate, to which most of the park once belonged, can play a role in educating the public about the significance of the Felts from a historic and environmental perspective.
- ❑ Developed Recreation Zone, approximately 45 acres (5%), allows active recreation with high density of use conducted in areas not designated for natural resource significance. In this zone, recreation dominates with natural resource attributes enhanced as possible. Opportunities for overnight accommodations (e.g., camping) will be explored in Phase 2 planning.



1.0 Plan Process Overview

A General Management Plan (GMP) guides the management of resources, visitor use, and general development at Saugatuck Dunes State Park over a 20-year horizon. The GMP provides the foundation for protecting park resources while providing for meaningful visitor experiences. The long-range vision and management objectives for the Park are derived from applicable legal directives, the purpose of the park, and the park's significant resources.

The GMP process for Saugatuck Dunes State Park was made possible, in part, by funding provided by the Michigan Coastal Management Program, Department of Natural Resources and Environment, and the National Oceanic and Atmospheric Administration U.S. Department of Commerce. The Department of Natural Resources and Environment Recreation Division (RD) oversaw the process and development of the Plan for the Park. A major component of the planning process was to ensure that extensive input was sought from DNRE professionals, community groups, stakeholders and the general public throughout the development of the plan.

GMPs develop as a result of a series of planning steps. Each step builds upon the previous, and action decisions focus on (1) the mission of the Recreation Division (RD), and (2) the specific Purpose and Significance of the park. There are four phases of planning, implemented in the following order:

- ◆ **Phase 1.** General Management Plan (GMP) that presents long-range (20-year) goals.
- ◆ **Phase 2.** Long-range Action Plan that identifies long range (10-year) goals to attain the GMP (requires review of Phase 1)
- ◆ **Phase 3.** Five-Year Action Plan, which outlines specific actions to implement (requires review of Phase 1 and Phase 2)
- ◆ **Phase 4.** Annual Action Plan and Progress Report to answer what will be done this year, and what progress was made on last year's plan.

This Plan represents **Phase I**. In this phase of planning, a 20-year vision for the park is defined, and critical questions are answered, such as: What will be the condition of flora and fauna? How will we address historic and cultural resources?

What recreational opportunities could be provided? What education and interpretation efforts will meet the visitor? What will guide the manager's operational decisions? What will be the visitor's overall experience?

Phase I determines management zones, and describes a variety of activities that may be appropriate within that zone. Phase I does not determine specific uses. Identifying specific uses within each management zone is a function of Phase 2. Management Plans do not guarantee future RD funding to achieve them. RD will seek internal funding, alternative funding sources, partnerships and other potential mechanisms for implementing the desired future conditions defined in this plan.

The tool used by this plan is the designation of "Management zones." Management zones define specific characteristics of the land, addressing management for:

- ◆ Natural features
- ◆ Historic/cultural features
- ◆ Education/interpretation
- ◆ Recreational opportunities

These four elements represent the primary goals of the RD Mission Statement, and provide guidance for both planning and management decisions. Appendix A presents a detailed account of each of these elements. In addition, management zones prescribe values for:

- ◆ Visitor experience
- ◆ Management focus
- ◆ Development

Within the parameters of this guidance, "Purpose" and "Significance" statements are developed for the park that establish its unique identity and focus. No two parks are the same and emphasis is directed at ensuring that the differences found from park to park are acknowledged, highlighted and celebrated.

1.1 Planning Objectives

The objective of this General Management Plan was to bring together RD Department staff, stakeholders, and the public who use the park into a planning process that will define and clarify the unique "Purpose" and "Significance" of Saugatuck Dunes State Park. Collectively, those attributes will be reinforced in the planning and management decisions that impact the park through the implementation of the Management Zone Plan. Future action plans, whether focused on a development proposal, a resource improvement initiative, an interpretive program, or day-to-day management of the park will be guided by this General Management Plan.

Extensive input was sought throughout the planning process. The Planning Team met several times to review and comment on the plan elements (see Section 1.2). In addition, the DNRE hosted a stakeholder workshop and two public participation workshops. Both the stakeholder and public participation workshops solicited written and verbal comments. The draft plan was available for review on a website and the public was invited to email, call or mail questions or comments concerning this initiative. The results of the public participation program are provided in Attachment B.

1.2 Planning Team

Accomplishment of our planning objectives was and is dependent upon the valuable input provided by all members of the “Planning Team”. The names of listed below are those who were critical participants in this planning process. Agendas, meeting minutes and attendance at Planning Team meetings is provided in Appendix C.

<u>Name</u>	<u>Representing</u>
<input type="checkbox"/> Mike Terrell	RD - Unit Manager (Warren Dunes, Warren Woods & Grand Mere)
<input type="checkbox"/> Andrew Montgomery	RD - Unit Supervisor (Warren Dunes, Warren Woods & Grand Mere)
<input type="checkbox"/> Kurt Maxwell	RD – Supervisor 2 (Saugatuck Dunes)
<input type="checkbox"/> Joyce Rhodes	RD – Unit Supervisor (Holland)
<input type="checkbox"/> Sherri Owsiak	RD – Supervisor 2 (Holland)
<input type="checkbox"/> Rollie Johnson	RD – Plainwell District Supervisor
<input type="checkbox"/> Paul Curtis	RD - Park Management Plan Administrator
<input type="checkbox"/> Paul Yauk	RD - Lands Manager
<input type="checkbox"/> Ray Fahlsing	RD – Stewardship Unit Manager
<input type="checkbox"/> Joe Strach	RD – Plainwell/Rose Lake District(s) Planner
<input type="checkbox"/> Jeff Johnson	RD – Student Intern (Management Planning)
<input type="checkbox"/> Carol Skillings	RD – Grants Coordinator
<input type="checkbox"/> Kim Dufresne	FMD – Forest Fire Supervisor
<input type="checkbox"/> Steve Cross	FMD – Forest Fire
<input type="checkbox"/> Tom Hoane	FMD – Minerals
<input type="checkbox"/> David Price	FMD - Planning
<input type="checkbox"/> David Vansumeren	LED – Plainwell District Lieutenant
<input type="checkbox"/> Brian Gunderman	FD – Biologist
<input type="checkbox"/> Kregg Smith	FD – Biologist
<input type="checkbox"/> Steve Chadwick	WLD – Acting Unit Supervisor
<input type="checkbox"/> Mark MacKay	WLD – Planner
<input type="checkbox"/> John Lerg	WLD – Karner Blue Butterfly Habitat Conservation Plan Coord.
<input type="checkbox"/> Janet Canode	OMET – Education and Outreach
<input type="checkbox"/> Rob Corbett	OLAF – Lands

DNRE – Coastal Zone Management Program

Lynda Krupansky CZM – Coastal Management Program

Planning Consultants

David C. Birchler Birchler Arroyo Associates, Inc.
 Jill Bahm Birchler Arroyo Associates, Inc.

1.3 Management Plan Planning Process

Investigative studies began in 1948 to explore the opportunities presented within this parcel for park use. Long-range planning for Saugatuck Dunes State Park began in 1981 with the Saugatuck Advisory Committee preparing a SDSP Final Report. An environmental assessment was conducted in 1981.

In 2007, Recreation Division of the received a federal grant from the Coastal Zone Management Program of the Department of Natural Resources and Environment (DNRE) for the purpose of developing individual long-range Management Plans for Grand Mere State Park, Warren Dunes State Park, Holland State Park and Saugatuck Dunes State Park. Without the CZM grant, insufficient resources in staff or funding would have precluded these planning efforts.

2.0 Core Values



2.1 Mission Statements

Guidance for the General Management Plan stems from the Mission Statements of the Department and its Recreation Division, and the Purpose and Significance Statements that have evolved through the planning process. The core values found in these statements must be reflected in this long-range General Management Plan for Saugatuck Dunes State Park, and subsequently reflected in any shorter range action plans:

DNRE Mission Statement

The Department of Natural Resources and Environment is committed to the conservation, protection, management, accessible use and enjoyment of the State's environment, natural resources, and related economic interests for current and future generations.

RD Mission Statement

The Recreation Division's Mission is to acquire, protect, and preserve the natural and cultural features of Michigan's unique resources, and to provide access to land and water based public recreation and educational opportunities.

The core values derived from these statements are that RD will acquire, preserve and protect; (1) natural resources, (2) cultural resources, (3) provide public recreation, and (4) provide educational opportunities.

2.2 Park Purpose

Statements of purpose for Saugatuck Dunes State Park are based on park legislation, legislative history, special designations and DNRE policies. These statements reaffirm the reasons for which Saugatuck Dunes State Park was identified as part of the State Park system. The purposes of Saugatuck Dunes State Park are:

1. The park was purchased by the State of Michigan in 1978
2. To provide opportunities for recreational uses and experiences that are unique to Saugatuck Dunes State Park and compatible with the park's resource(s) base.
3. To preserve and protect the park's unique natural resources for current and future generations.
4. To provide educational and interpretive opportunities for the public that reflect the mission of the DNRE and the unique qualities of Saugatuck Dunes State Park

2.3 Park Significance

Park significance statements capture the essence of its importance to carry out the core values of our RD Mission. They recognize the natural and cultural heritage values of the park and the recreational and educational opportunities afforded. These statements describe the distinctiveness of Saugatuck Dunes State Park. Understanding these distinctions helps managers make decisions that preserve those special resources and values necessary to accomplish the park's purposes. Saugatuck Dunes State Park is significant because of many factors, including but not limited to those stated below.

1. Saugatuck Dunes State Park offers the public 2.5 miles of pristine Lake Michigan shoreline.
2. Saugatuck Dunes State Park contains fresh water coastal dunes over 200 feet tall, with terrain varying from steep slopes to rolling hills. Three elements are represented in this park: open dunes, mesic southern forest and interdunal wetland.
3. Saugatuck Dunes State Park provides year-round opportunities for recreation, education and enjoyment within a natural setting and allows access to Lake Michigan. University programs have introduced over 1,500 students to the Saugatuck Dunes for field study.
4. Most of Saugatuck Dunes State Park lies within the designated critical dune area, which is subject to statewide development restrictions pursuant to the Sand Dunes Protection Act of 1978.
5. The park also contains a dedicated Natural Area due to its significance of open dunes, mesic southern forest, interdunal wetlands, large blowouts, and wooded dunes. Pitcher's thistle, listed as threatened by the state and

federal governments, occurs within this area. In addition, migrating birds use the red oak dominated forested dunes in the spring and fall.

6. Cultural resources found in Saugatuck Dunes State Park include the historic Felt Mansion (owned and operated by Laketown Township), associated Felt Farm, and a history of artists inspired by the park's beauty.
7. The Felt family's history of environmental stewardship and alternative energy development has significant potential to provide educational opportunities.
8. Dune restoration is on-going at Saugatuck Dunes State Park to replace non-native and inappropriate vegetation with native plantings

2.4 Legal Mandates

For all park General Management Plans, legal mandates are identified and serve to further guide the development of the General Management Plan and subsequent Action Plans. For our planning purposes, the term "Legal Mandates" refers to not only state law, but also the administrative tools of "Policy" and "Directive" of the Natural Resource Commission, the Department, and Recreation Division. Specific to Saugatuck Dunes State Park, the following legal mandates have been identified.

1. PA 451 OF 1994, PART 741 - STATE PARK SYSTEM - NATURAL RESOURCE AND ENVIRONMENTAL PROTECTION ACT - This act is the recodification of law that established the Michigan State Park System and defined the powers and duties of same. Notable in this law is Section 324.74102 which identifies the duties of the department and reinforces those core values cited above.

This section reads:

- (1) "The legislature finds:
 - (a) Michigan State Parks preserve and protect Michigan's significant natural and historic resources.
 - (b) Michigan State Parks are appropriate and uniquely suited to provide opportunities to learn about protection and management of Michigan's natural resources.
 - (c) Michigan State Parks are an important component of Michigan's tourism industry and vital to local economies.
- (2) The department shall create, maintain, operate, promote, and make available for public use and enjoyment a system of state parks to preserve and protect Michigan's significant natural resources and

areas of natural beauty or historic significance, to provide open space for public recreation, and to provide an opportunity to understand Michigan's natural resources and need to protect and manage those resources."

2. Public Act 451 of 1994, Natural Resources and Environmental Protection Act Part 323, Shorelands Protection and Management: The key state statute providing consumer protection from the natural hazards of coastal erosion and flooding as well as environmental protection of the State of Michigan's fragile coastal areas.
3. Public Act 451 of 1994, Natural Resources and Environmental Protection Act Part 353 – Sand Dunes Protection and Management. Regulations to protect the critical dune areas of this state, allowing local units of government to exercise the primary role in protecting and managing critical dune areas in accordance with this part. The benefits derived from alteration, industrial, residential, commercial, agricultural, silvicultural, and the recreational use of critical dune areas shall occur only when the protection of the environment and the ecology of the critical dune areas for the benefit of the present and future generations is assured.
4. Restrictions of Land Purchase Funding Sources:
 - Gift – three parcels of the park were acquired by gift from the Federal Government totaling 20.68 acres. These properties were provided to the state as a donation from private individuals or entities. They are used for general program purposes unless a specific deed restriction would otherwise dictate.
 - Michigan Land and Trust Fund (MLTF) – three parcels totaling 47.92 acres were funded by the sale of oil, gas, and mineral leases on certain State land. These are to be used for park purposes. The State Constitution was amended in 1984 to provide for a "Michigan Natural Resources Trust Fund" which was implemented in 1985. Most rentals, royalties, and other revenues derived from mineral, coal, oil, and gas interests on State-owned land are credited to the fund. Public Act 451 of 1994 redirected a portion (\$10 million per year) of these revenues previously committed to this fund, to the Michigan State Parks Endowment Fund. Appropriations are used to fund grants to local units of government as well as State agencies to acquire or develop outdoor public recreation facilities.
 - Multiple – 16 parcels totaling 351.46 acres are utilized for general program purposes. (secured with Federal Land and Water Conservation, and Michigan Land and Trust and Special Legislation bond money)

- Michigan Natural Resources Trust Fund (MNRTF) – four parcels totaling 30.37 acres came from money spent annually to purchase land for resource protection, public outdoor recreation and to develop outdoor recreational facilities across the state. The trust fund was established in 1976 to provide a source of funding for public acquisition of lands for resource protection and public outdoor recreation. Funding is derived from royalties on the sale and lease of state-owned mineral rights. It is utilized for general program purposes.
- Special Legislation – 17 parcels totaling 553.07 acres were acquired by this fund. Half of the total park acreage has been acquired with this source. It is utilized for general program purposes.
- PA 188 of 1977 - 1977-78 fiscal year appropriation from the general fund of the State of Michigan in the amount of \$4,201,000 for acquisition of the St. Augustine seminary, Allegan county, land, buildings, and appurtenances and \$175,000 for park development and entrance road to complete plans and construction. A portion, about 44 acres, was placed under the jurisdiction of the Department of Corrections for a medium security facility of not more than 500 inmates, and the remaining acreage was to be for passive uses.

Section 14. ... This section shall not prevent utilization of inmate labor for park cleanup or related purposes except that residents of the correctional facility located on the premises shall not be utilized for that purpose. Except as provided in the next two sentences, the park shall be used only for park purposes, and no person shall be excluded from the use or enjoyment thereof by reason of that person's residence or for any other reason which would constitute a violation of the laws of this state (note: 368 acres). That portion of the park situated in the south half of the south half of fraction section 28, T4N, R16W (note: approx 105 acres), shall not be restricted exclusively to use for park purposes, but may be put to other uses which are not destructive of the prevailing natural features of such parcel in existence when possession of the premises is transferred to purchaser (DNRE); such portion may be divided only if all resulting parcels are greater than 20 acres in area. That portion of the park situated in sections 27 and 34, T4N, R16W (note: approx. 80 acres), shall be restricted as in the next preceding sentence except that the minimum area of resulting parcels shall be 5 acres. The foregoing restrictions on use shall be binding on all successors in title to the premises. In the event of violation of the foregoing restrictions the seller shall have a right to commence litigation to revest title in the seller or to compel future observance of the restrictions. Such restrictions and the right of suit shall be set forth in the deed utilized to convey title to the premises.

Section 21. The department of corrections shall be prohibited from using any of the property described in this act for an honor camp system.

5. R.O.W. FOR COUNTY ROADS – The Right-of-Way for 138th Avenue, a county road, is 66' wide (33' from center line). The road that runs north off 138th to the park shows a proposed ROW of 80'. This added ROW appears to run back to the area where the pay booth is to enter the park. This was built by MDOT when the prison was put in the former seminary. The Allegan County Road Commission has the authority to require permits for any impacts to their ROW (i.e. crossings or new drives).
6. BOUNDARIES DEDICATED MAY 13, 2004 - The Natural Resources Commission reviewed and rededicated boundary changes for Saugatuck Dunes State Park in 2007.
7. DESIGNATED NATURAL AREA, PA 451 OF 1994, PART 351; NREPA – Wilderness and Natural Areas:
Dedication of the Saugatuck Dunes Natural Area – 291 acres of the park are designated as State Natural Area under part 351 of NREPA of 1994. This legislation provides guidelines for the identification, management and protection of Wilderness, Wild and Natural Areas. The legislation prohibits most cutting, gathering or other alteration of vegetation, extraction of minerals, establishment of commercial uses and easements, and use of mechanized devices of travel.
8. METAL DETECTING AREAS – There are some areas within the park that are accessible for metal detecting. See map in Appendix A.
9. PARK MANDATES - There is no bicycle, equestrian, or snowmobile use allowed in the park, due to the fragile ecosystem and designated natural area.
10. EASEMENTS
 - a. Road easement on roughly a mile of two-track for access to private inholding properties completely encompassed by the park. Also includes electrical lines. There are 5 full-time homes and one cottage.
 - b. Easement to a well near the lakeshore installed for the former prison site. The township has requested use of the well.
 - c. A recent land transfer traded a larger piece of property for a smaller parcel for development of two private homes, on the Rupert Tract. This transfer also provided the state with an easement for public access along the beach. That leaves only one parcel along 2 miles of lake frontage without public access, along a 50' strip of shoreline on the Bogie parcel.

11. INFORMAL AGREEMENTS - There is a gate on the two-track leading to the private inholdings, which is on county road ROW. The gate has been there since the early 1980's. Private owners maintain the gate, and upgraded it to a rolling electric gate.

12. ENCUMBRANCES UNDER GRANTS – Saugatuck Dunes State Park is encumbered under the Land and Water Conservation Fund Program with the National Park Service, and under the Michigan Natural Resources Trust Fund.

11. STUDIES and REPORTS

- a. Management Zone Map with General zone, Recreation zone, Historic zone, and Natural Area zone.
- b. Vegetation Map, undated
- c. Saugatuck Dunes State Park Final Report prepared by Saugatuck Advisory Committee, February 1981. The advisory committee was established to assist the Parks Division, DNRE with the preparation of a park master plan.
- d. Environmental Assessment for Saugatuck Dunes State Park, August 1981

APPENDICES

Exhibit A: Previous Conceptual Studies

- 1948 Reconnaissance Report for potential site of state park
- 1959 study prepared by the National Park Service identifying potential park site
- November 1970 Description for Potential Park Site
- September 1972 Description for Proposed Shoreline Park

Exhibit B: Access to Saugatuck Dunes State Park

- Road access proposals

Exhibit C: "Land Trust Fund" Applications

- Land Acquisition Proposals

Exhibit D: Act 188, P.A. 1977

Exhibit E: History

- July 3, 1980 Archaeological Survey of the Proposed State Park near Michigan Dunes Correctional Facility, Allegan County, Michigan; includes a partial transcript of 80 minutes of tape provided by Jim & Joe Sheridan concerning the history of the Saugatuck Dunes State Park study area, July 1980

Exhibit G: Vegetation of Saugatuck Dunes State Park

Exhibit H: Wildlife Resources

Exhibit I:

- Act No. 222, P.A. 1976 Sand Dune Protection and Management Act (and rules?)
- Act No. 245, P.A. 1970 Shorelands Protection and Management Act and Great Lakes Shoreland Rules
- Act No. 203, P.A. 1979 Wetland Protection Act (and rules?)
- Act No. 241, P.A. 1972 Wilderness and Natural Areas Act (and rules?)
- Exhibit J: Entrance Control Building plan
- Exhibit K: Managers Residence plan
- Exhibit L: Beachhouse plan
- Exhibit M: Vault Toilet plan
- Exhibit N: Shelter Building plan
- Exhibit O: Kiosk plan
- Exhibit P: Boardwalks plan
- Exhibit Q: Existing Park Facilities site plan
- Exhibit R: Typical Roadway Cross Section
- Exhibit S: Fencing & Gates, Park Policy #47
- Exhibit T: Attendance & Turnaway
- Exhibit U: Hoffmaster Development Specifications
- Exhibit V: Properties Involved in 82-84 Right to Option Agreement
- Exhibit W: Saugatuck Advisory Committee Report
- Exhibit X: Major Issues
- Exhibit Y: Fire Island National Seashore Concept (bathhouse plan)
- e. Environmental Assessment for Saugatuck Dunes State Park, ~1982 for Hors Land Acquisition
- f. Map of Conservation Areas in the Great Lakes Region, produced by The Nature Conservancy Great Lakes Program, September 2000
<http://www.great-lakes.net/aocstrategyteam/documents/aocmap.pdf>
- g. PIRGIM Releases New Report: Michigan's Natural Heritage At Risk: Preserving Open Spaces and Special Places from Uncontrolled Development A New Role for Citizens in State Park Planning: Saugatuck Dunes State Park; Robert I. Reinking, Hope College and Patricia I. Birkholz, Saugatuck Dunes Advisory Committee, June 26, 2007
http://www.saugatuckdunes.org/WhitePapers/06-10-03_PirginHeritageAtRisk.htm
- h. Application to the Department of Natural Resources and Environment for an Environmental Area Designation under Michigan's Shorelands Protection and Management Act for the Lower Kalamazoo River and adjacent Lake Michigan Coastal Shoreline. Prepared on behalf of the Kalamazoo River Protection

Association and the Saugatuck Dunes Coastal Alliance. August 2008.

12. LOCAL PLANS

Three local governments—Saugatuck, Douglas, and Saugatuck Township—have embraced a cooperative master planning process since 1989. The Tri-Community Comprehensive Plan was updated in 2003 and 2004 and forms the seed from which a regional comprehensive plan will germinate. The Plan speaks precisely to guiding future development to advance a common vision around environmental goals that "preserve the existing small town/rural character of the area," and "achieve sustainable development, which meets the needs of the present generation without compromising the ability of future generations to meet their needs."

13. LEGAL PROCEEDINGS

In 2007, there was a fire at the north end of park, which started on state property as a result of children shooting off fireworks. Two houses were lost at a value of millions of dollars from that fire. There have been legal inquiries.

14. DOCUMENTED PUBLIC CONCERNS

Michigan Environmental Action Council November 12, 2001 letter in opposition to a proposal to construct a water supply facility for Laketown Township on and across Saugatuck Dunes State Park.

http://www.saugatuckdunes.org/WhitePapers/LetterMiEnvCounc_11_12_01.htm

Holland had an option on land and wanted to come through the north end of the park to build a water infiltration plant, but all parties could not come to terms.

Concerned Citizens for Saugatuck Dunes State Park, February 22, 2002
http://www.saugatuckdunes.org/Update_2_22_02.htm

Posted: Thu Jul 26, 2007 Saugatuck residents are battling a plan to put condos on one of the largest stretches of untouched beachfront on the Lake Michigan shoreline.

<http://forums.woodtv.com/viewtopic.php?t=1981&sid=ba5b45312890da99e66e26ab75da158c>

July 2007. The Saugatuck Dunes Coastal Alliance, formed in 2007, is a statewide coalition of individuals and organizations that are seeking to protect the environment and better manage growth in two small coastal towns and several coastal townships in Allegan County. Their report, Fever of Development, Frontier of Recovery, was developed to help the non-profit

environmental group better understand market and demographic trends along Allegan County's Lake Michigan shoreline, and develop a strategy to defend the region's natural resources and small-town quality of life.

<http://www.mlui.org/landwater/fullarticle.asp?fileid=17174>

2.5 Land Acquisition

Imbedded in its mission statement and core values is the acquiring of land with unique resources, or natural, historic, and cultural features. Land is to be acquired for the direct purposes of preserving and protecting natural and historical / cultural features and providing public recreation and educational opportunities.

3.0 Management Zone Plan



With guidance of the Planning Team and input from our stakeholders and the public, the park's "Purpose and Significance" statements were formulated. This established an identity for Saugatuck Dunes State Park as a place to be valued for its unique ecological features, Lake Michigan shoreline, recreational trails, potential for overnight accommodations and opportunity for natural resources education.

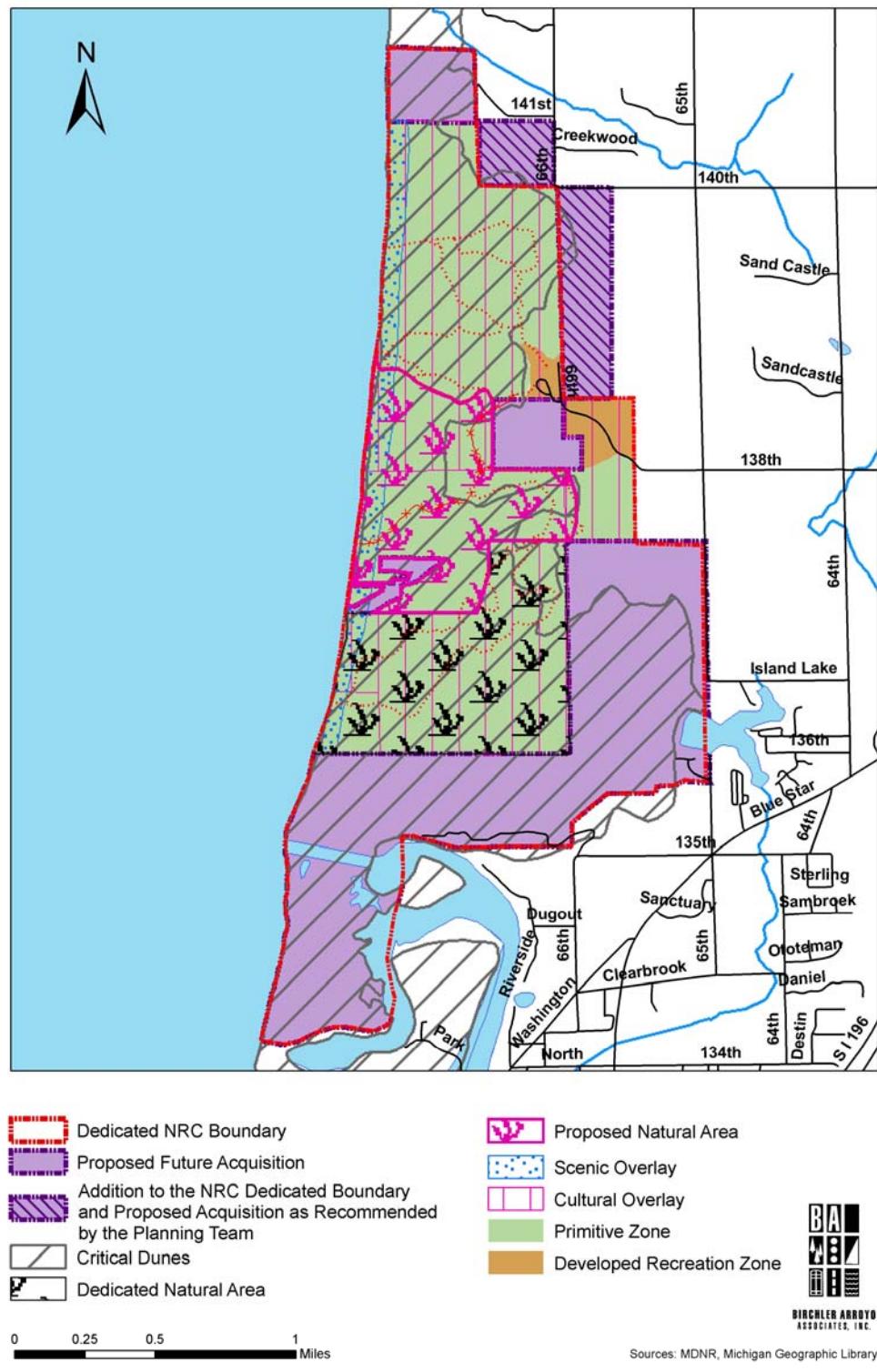
The Management Zone Plan, Figure 1, was developed in keeping with the park's unique Identity. Similar to the Purpose and Significance statements, the Management Zone Plan was also drafted with Planning Team, stakeholder and public support. The Management Zone Plan seeks to preserve and protect the resources, while creating low-intensity recreational uses, and educational and interpretation opportunities. To achieve this, the park was divided into the following zones:

- ❑ Primitive Zone, 949 acres (95%) reflects a desired condition that emphasizes the natural resources. Land is managed to only allow dispersed and low frequency use for low impact recreational purposes. Attaining and maintaining a high quality natural resource condition dictates the extent to which recreational improvements or uses are allowed
- ❑ Scenic Zone, approximately 99 acres (10%), recognizes that there are aesthetic qualities to be preserved and protected in the park. The lakeshore, in particular, is a draw for its scenic views.
- ❑ Developed Recreation Zone, approximately 45 acres (5%), allows active recreation with high density of use conducted in areas not designated for natural resource significance. In this zone, recreation dominates with natural resource attributes enhanced as possible.

This is Phase I of the General Management Plan for Saugatuck Dunes State Park. Phase I determines management zones for the park land. Management zones describe a variety of activities that **may be** appropriate within that zone. Identifying specific activities that **will occur** is a function of Phase 2 general management planning, and not a component of this phase.

- ❑ Cultural Overlay Zone, approximately 787 acres (79%), may contain historic structures but also related non-structural evidence of an area's past. This zone can be a subset of another zone, and resources are managed according to the underlying zone.
- ❑ Proposed Future Expansion: The Planning Team recommends acquisition of those properties within the 2004 NRC Boundary as shown on the map. There is significant property adjacent to Saugatuck Dunes State Park that may be available for the State to acquire. For several years the property south of the park, known as the "Denison Property," has been pursued for potential development by a private investor. Community leaders, activist groups and local neighbors have pursued a variety of strategies to preserve the natural character of the properties in the area. The downturn in the economy has relieved some of the immediate development pressure, allowing conservation strategies to be fully considered.

Saugatuck Dunes State Park Management Zones



3.1 Primitive Zone

Approximately 949 acres, or 95%, of the land comprising Saugatuck Dunes State Park is designated Primitive Zone, most of which is regulated Critical Dune Area. This includes a portion of the park at the southern end that contains the currently dedicated Natural Area. Expansion of the Natural Area to the north is proposed to include the entire southern half of the park. Only foot traffic would be allowed in this zone to ensure that the natural features are not damaged or compromised by recreation.

Prior to the proposed Natural Area Expansion, an appropriate trail route for improving access to the lakeshore will be considered, particularly as the disposition of the Denison property to the south becomes clear. When identified, the trail route will be redefined to Backcountry Zone. Phase II of the management zone process will involve a more specific look at improving the access to the lakeshore.

A. Natural Resources. This zone will reflect natural processes, with vegetative management only allowed to restore and maintain natural ecological structure and processes (such as removing of invasive species), to address hazard trees, and to manage pests and disease. Land would be managed to preserve and protect the second growth forest of the back dunes. Preserving this land is important because:

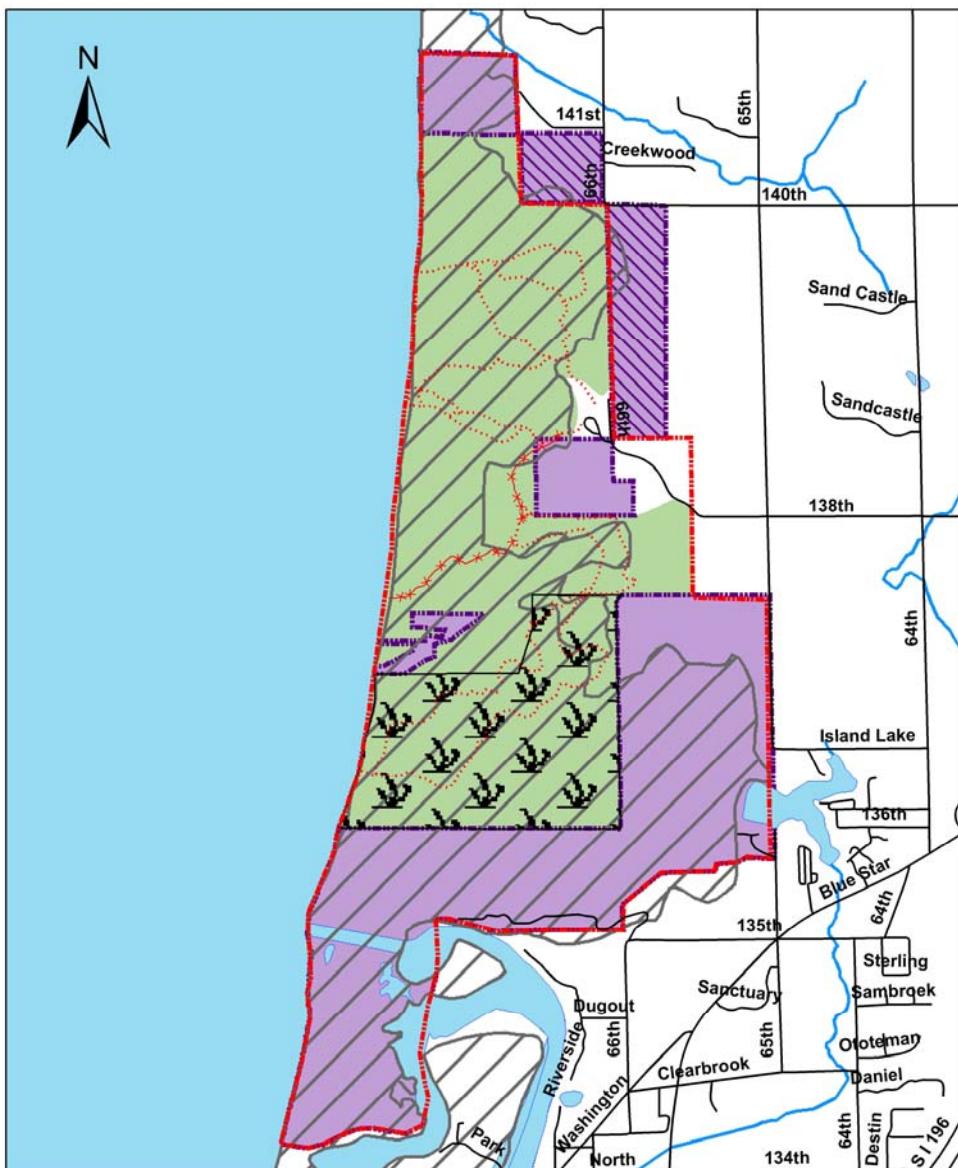
- The dunes in Saugatuck Dunes State Park are an important ecological resource that supports a diversity of flora and fauna.
- The forested area retains nearly complete canopy coverage, encompassing a variety of microhabitats.

The management zone plan promotes the on-going maintenance and enhancement of these natural resources to ensure their success in the long-term. Native species and natural processes would take precedence over visitor accommodation.

B. Historic / Cultural Resources. Resources in this zone would be preserved, removed or allowed to waste away.

C. Recreational Opportunities. With the focus of this zone being preservation, protection and enhancement of the natural communities present within the zone, recreational opportunities are limited to low-intensity uses. Any uses must be dispersed, low intensity, off-trail or trail, self-reliant, outdoor activities. Activities that could occur in this zone include hiking, back-packing, hunting/trapping/fishing, cross-country skiing, and nature observation.

Saugatuck Dunes State Park Primitive Zones



Dedicated NRC Boundary

Proposed Future Acquisition

Addition to the NRC Dedicated Boundary
and Proposed Acquisition as Recommended
by the Planning Team

Critical Dunes

Dedicated Natural Area

Primitive Zone



BIRCHLER ARROYO
ASSOCIATES, INC.

Sources: MDNR, Michigan Geographic Library

0 0.25 0.5 1 Miles

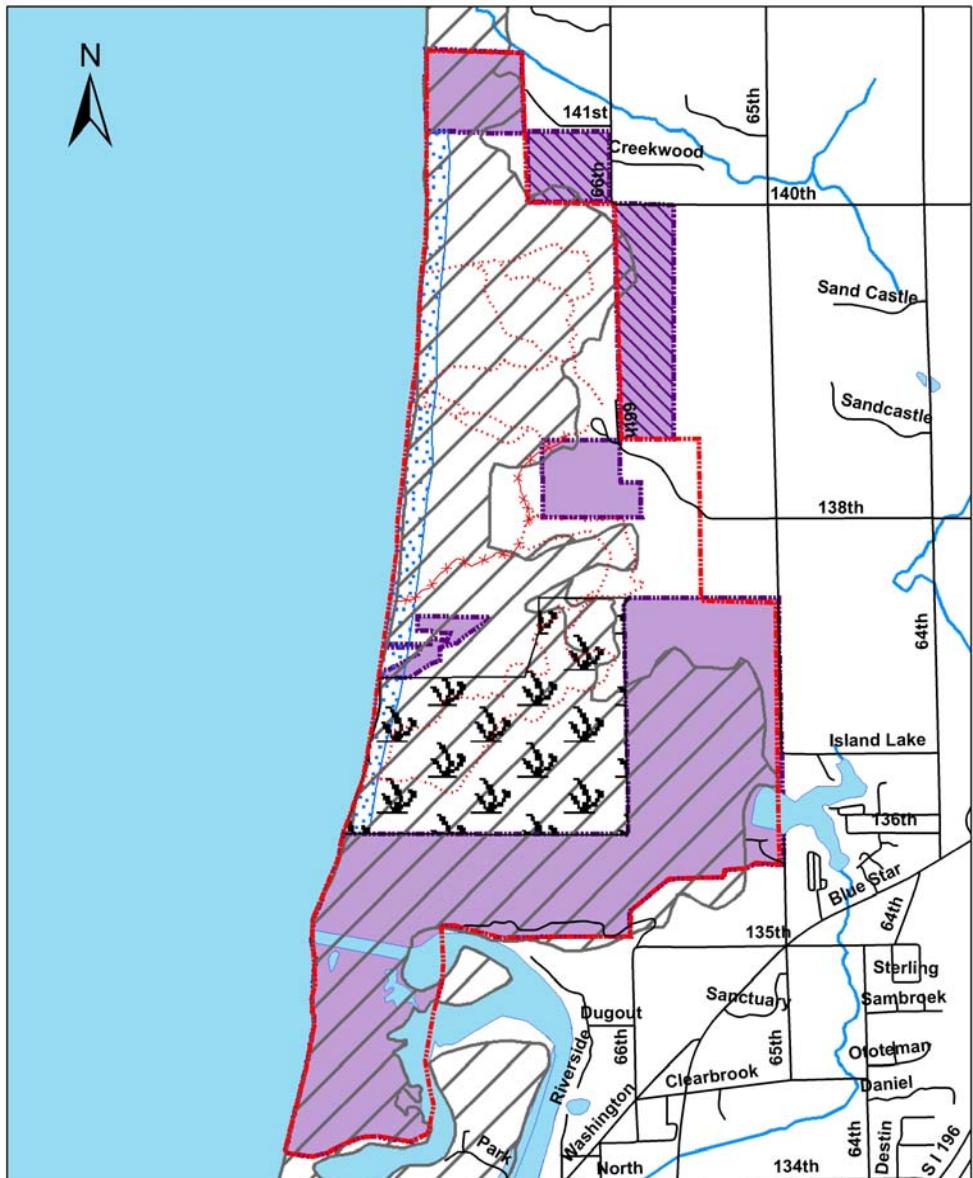
- D. Education Opportunities. The ecological significance of the resources in the park presents a tremendous educational opportunity. Information can be relayed through the use of kiosks at trailheads and interpretive signage along trails and other appropriate locations.
- E. Visitor Experience. Visitor experience would reflect a high degree of natural feel: a significant sense of solitude, and a lack of man-made improvements. There would be low interaction with others.
- F. Management Focus. Management would focus on maintaining the low-impact character of the zone, with emphasis on natural resource quality. Routine maintenance would be provided. Care would be taken to eliminate any detrimental impacts such as erosion, sedimentation or incursion of invasive species. Other management strategies would be based on recommendations in a future Stewardship Plan. An emphasis will be placed on effecting the proposed expansion of the Natural Area.
- G. Development. The focus is to maintain as little evidence of human activity as possible. Only trail improvements, which can include boardwalks and/or overlooks.

3.2 Scenic Zone

The Scenic Zone, approximately 99 acres (10%), is established for scenic viewscapes. The park's entire Lake Michigan shoreline is identified as highly scenic during the plan process.

- A. Natural Resources. This zone will reflect natural processes, with vegetative management only allowed to restore and maintain natural ecological structure and processes (such as removing of invasive species), to address hazard trees, and to manage pests and disease. Vegetation may also be managed to enhance the viewscapes of the zone.
- B. Historic / Cultural Resources. Cultural resources would be preserved, rehabilitated or removed. Historic structures could be adaptively used for operational uses or educational purposes.
- C. Recreational Opportunities. Moderate levels of recreation would be allowed, compatible with the surrounding Primitive zone. Non-motorized activity only would be allowed in the trail and observation point, where provided.
- D. Education Opportunities. Interpretive signage may be used at key viewing points, trailheads, overlooks or the parking area. There may be opportunities for off-site interpretation as well.

Saugatuck Dunes State Park Scenic Overlay Zones



Dedicated NRC Boundary

Proposed Future Acquisition

Addition to the NRC Dedicated Boundary and Proposed Acquisition as Recommended by the Planning Team

Critical Dunes

Dedicated Natural Area

Scenic Overlay



BIRCHLER ARROYO
ASSOCIATES, INC.

0 0.25 0.5 1 Miles

Sources: MDNR, Michigan Geographic Library

- E. Visitor Experience. High encounters are expected in Scenic Zones. Visitors would be engaged in sightseeing activities by hiking. A moderate time commitment, off-site interpretation and noise tolerance would be expected.
- F. Management Focus. Management focuses on maintaining the quality of the viewscape. Public safety, and ensuring that other activities and/or development within the Scenic Zone are compatible with the overriding purpose of the view quality are other management concerns.
- G. Development. Because the lakeshore is within the Primitive Zone, a low level of development is expected; there may be interpretive activities and sightseeing.

3.3 Cultural Overlay Zone

The Cultural Landscape Overlay Zone applies to most of the Saugatuck Dunes State Park (approximately 787 acres, or 79%) and represents what can best be determined as the original boundaries of the Felt Estate.

- A. Natural Resources. This zone will reflect natural processes, with vegetative management only allowed to restore and maintain natural ecological structure and processes (such as removing of invasive species), to address hazard trees, and to manage pests and disease. Vegetation may also be managed to enhance education/interpretation uses and maintaining an aesthetically appealing landscape that is sensitive to the historical resource and interpretation of the zone.
- B. Historic / Cultural Resources. Structures, remnants, and other landscape characteristics and features which represent the evolution of the resource, temporal change and the continuum of time will be preserved, protected and enhanced. Rehabilitation or adaptive re-use for operational or education purposes are permitted.
- C. Recreational Opportunities. Visitors could be engaged in sightseeing, recreational and education activities in a cultural setting compatible with and sensitive to the setting and the underlying zone requirements.
- D. Education Opportunities. The estate, its remnants, and viewshed demonstrates the uniqueness of Saugatuck Dunes, but also contributes to the story of the region. Mr. Felt, aside from the inventions that made him wealthy, was ahead of his time in terms of efficient energy use. Some of the remains of his Lake Michigan turbine system and geothermal heating can be related to visitors and may be appropriate for restoration. Information can be relayed through the use of kiosks at trailheads and interpretive signage along trails and other

appropriate locations. Off-site interpretation may be used as well (e.g., the Felt Mansion).

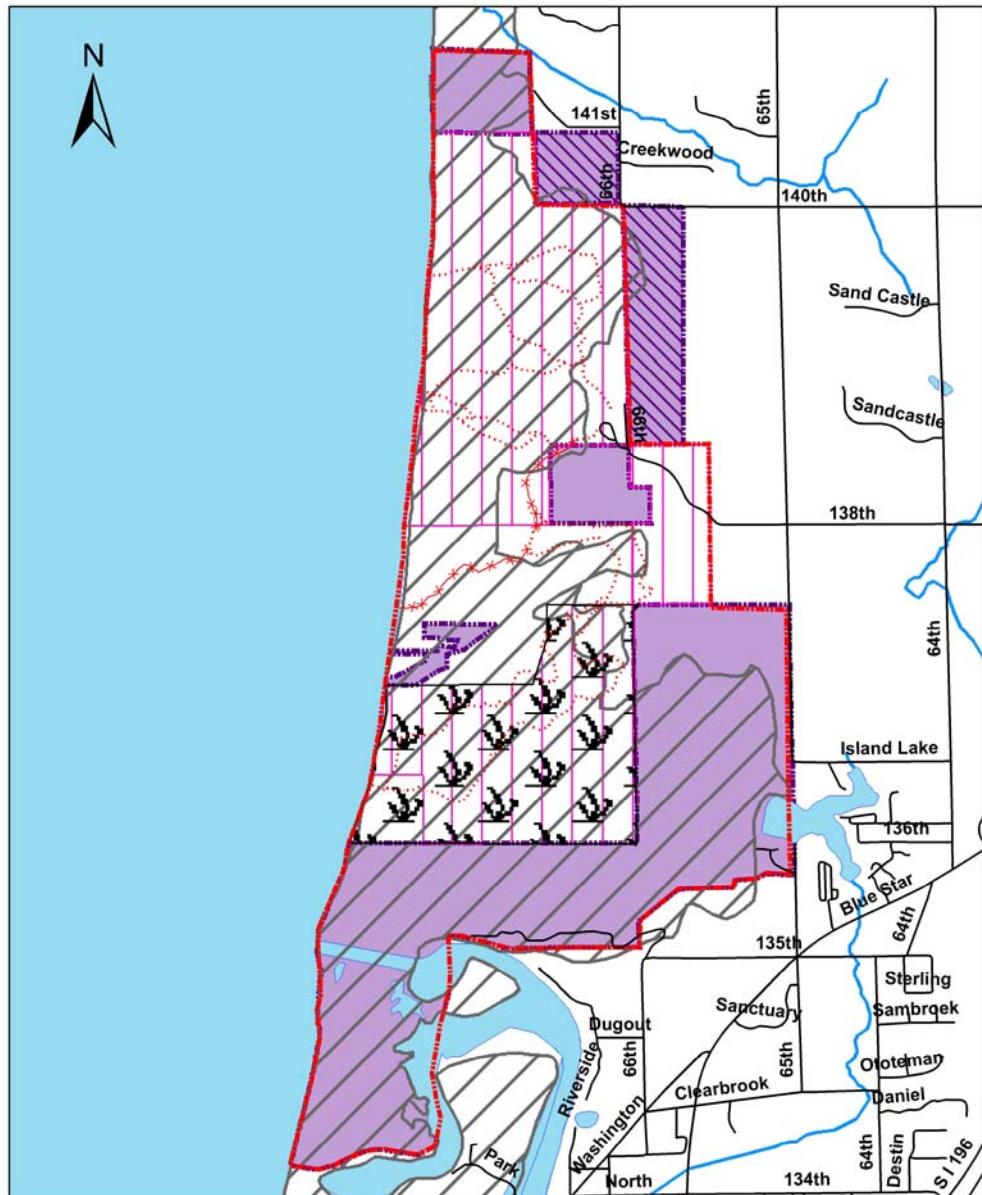
- E. **Visitor Experience.** For resources available to public viewing and/or use, moderate visitor encounters are accommodated. Visitors engage in sightseeing, recreational, and education activities in a cultural setting. Moderate noise, time commitment and interaction with others can be expected.
- F. **Management Focus.** Management focuses on maintaining the cultural character of the zone, with emphasis on natural resource quality.
- G. **Development.** Non-historic development and activities that do not conflict with the cultural landscape are tolerated in this zone. Moderate levels of development and accessibility could be provided to support visitor access and use.

3.4. Developed Recreation Zone

Approximately 45 acres (5%) of Saugatuck Dunes State Park is Developed Recreation (DR). Land in this zone contains largely that which has been developed in the past for various uses. This zone lies east of the Felt Mansion, which is not under State ownership. The Felt Mansion has been restored and is a beautiful facility that is available for historic tours and event rentals. The area leading to the Felt Mansion property would be appropriate for a higher level of activity than the remainder of the park.

- A. **Natural Resources.** Vegetative management in this zone will address hazard trees, invasive species, and pests and disease, and will also be allowed for purposes of facilitating development and recreational use and maintaining an aesthetically appealing landscape. Natural resources are actively managed and modified to support visitor activities. Water quality is maintained or restored.
- B. **Historic / Cultural Resources.** Resources in this zone could be preserved, adapted or rehabilitated. Non-utilized or unstable structures may be removed.
- C. **Recreational Opportunities.** High levels of recreation in a highly structured environment are found in this zone. Visitors engage in recreation activities in diverse and modified land and water settings: hiking, modern and semi-modern camping, bicycling, nature observation, cross-country skiing, snowshoeing, picnicking, and other day-use activities.
- D. **Education Opportunities.** Interpretive signage and information could be provided at a day-use facility, trailhead, along trails and overlooks.

Saugatuck Dunes State Park Cultural Overlay Zones



Dedicated NRC Boundary

Cultural Overlay

Proposed Future Acquisition

Addition to the NRC Dedicated Boundary
and Proposed Acquisition as Recommended
by the Planning Team

Critical Dunes

Dedicated Natural Area

0 0.25 0.5 1 Miles

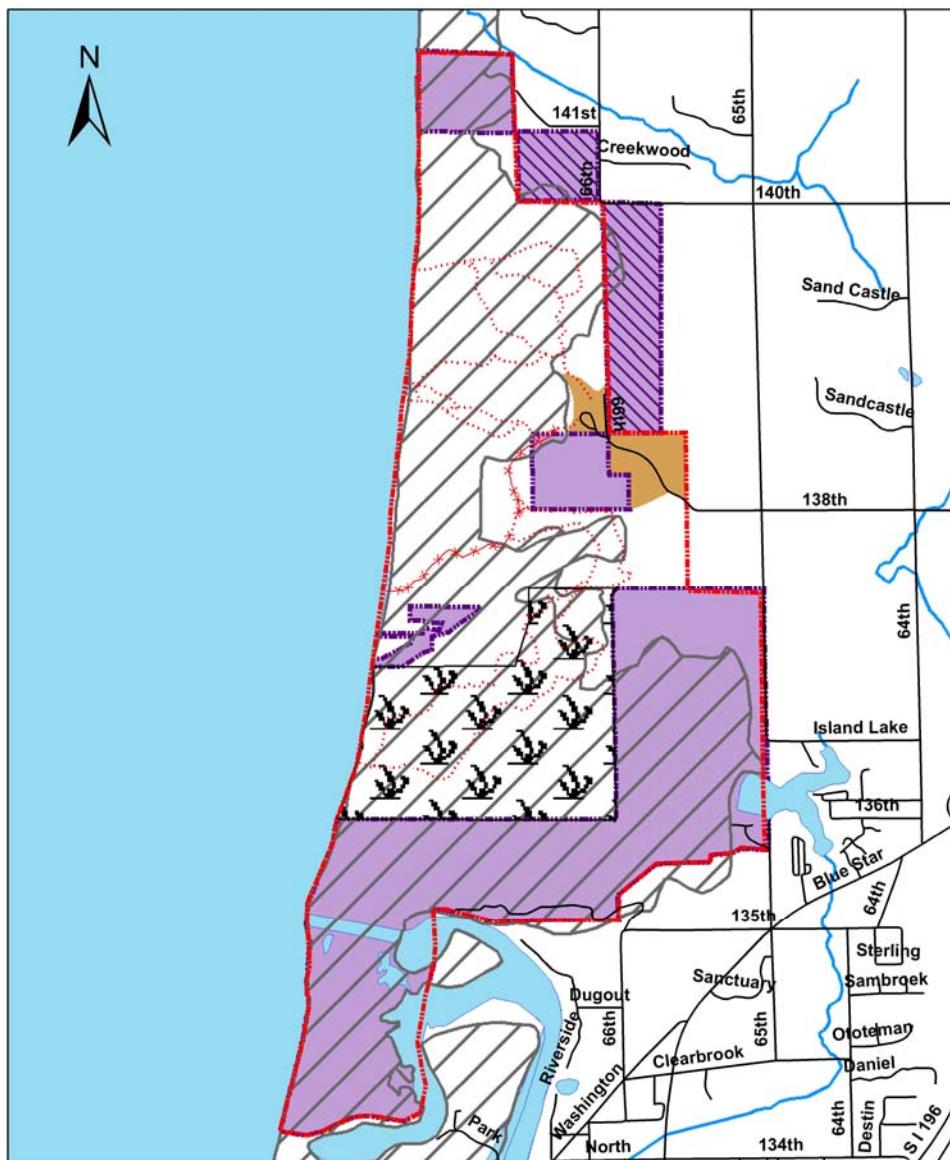


BIRCHLER ARBOYO
ASSOCIATES, INC.

Sources: MDNR, Michigan Geographic Library

- E. Visitor Experience. Moderate to high level of visitor encounters can be accommodated. Activities for visitors to engage in could offer a variable time commitment, challenge and adventure. Moderate noise tolerance and moderate to high interaction with others can be expected.
- F. Management Focus. Management focuses on maintaining the use of the zone appropriate to the RD's mission. Public safety, protection of resources, and universal access are management priorities. Opportunities for overnight accommodations, (e.g., camping) will be explored in Phase 2.
- G. Development. A high level of development of facilities for support of visitor activities is permitted in this zone. Examples of development include restrooms, concrete/asphalt/gravel walkways and parking, trails, benches, picnic tables, campsites, cabins and shelters for recreation and educational opportunities. Site hardening is allowed as necessary to facilitate activities and protect natural resources

Saugatuck Dunes State Park Developed Recreation Zones



- Dedicated NRC Boundary
- Proposed Future Acquisition
- Addition to the NRC Dedicated Boundary and Proposed Acquisition as Recommended by the Planning Team
- \ Critical Dunes
- Dedicated Natural Area

■ Developed Recreation Zone

0 0.25 0.5 1 Miles



Sources: MDNR, Michigan Geographic Library

4.0 Future Plan Inserts



The following are items that will be added to this General Management Plan (GMP) as they are developed. The GMP serves as a guide for each subsequent plan.

10-Year Action Plan (LONG-RANGE ACTION GOALS TO ATTAIN GMP): Phase 2 of the Management Planning Process. Includes review and update of General Management Plan.

5-Year Action Plan (SPECIFIC ACTIONS TO IMPLEMENT): Phase 3 of the Management Planning Process. Includes review and update of GMP and Phase 2 Plan.

Annual Action Plan and Progress Report: Phase 4 of the Management Planning Process.

Operational/Management Resources: The following categories are established as a guide for the park manager to use to supplement this working document. Other categories can be added as needed.

- Annual Work Plan (This report ties in with Phase 4 – Annual Report of Management Planning)
- Stewardship Plan
- Staffing
- Budget
- Equipment
- Training
- Public Relations / Marketing / Outreach
- Programming (ie. special events, MCCC, volunteers, etc.)
- Public Health, Safety, and Welfare
- Water system
- Wastewater system
- Electrical system
- Law enforcement
- Emergency Access Plan
- Wildfire Management Plan
- CRS
- FOIA
- Raster Image Index
- Raster Images of historic park plans, and
- Park Infrastructure data.



APPENDIX A

Supporting Analysis

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A1. Location

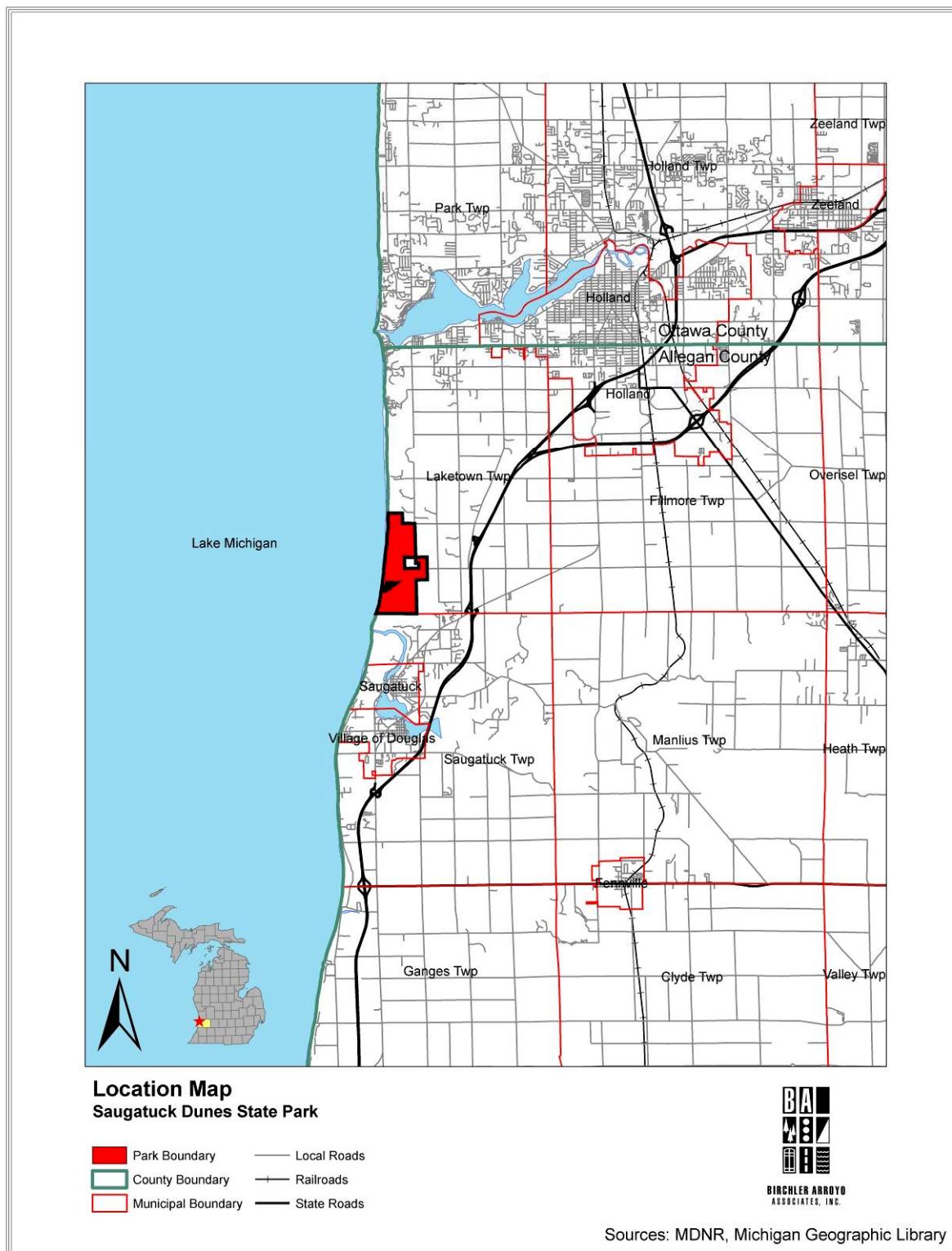
Location

Saugatuck Dunes State Park is located in Laketown Township (Allegan County), 3 miles northeast of the city of Saugatuck, 9 miles southwest of the city of Holland and 38 miles southwest of Grand Rapids. The park is 180 miles west of Detroit, 145 miles northeast of Chicago. The park covers about 994 acres and includes 2.5 miles of Lake Michigan shoreline.

Lake Michigan borders the park on the west. Residential homes, farms, and open space are located to the north and south. Interstate-196 lies east of the park.

Saugatuck Dunes State Park (SDSP) is a relatively undeveloped day-use park. The Lake Michigan beach is a 0.6-mile hike from the picnic parking area. The park contains fresh water coastal dunes over 200 feet tall, with terrain varying from steep slopes to rolling hills.

Map 1: Location Map



A2. Demographics

Population

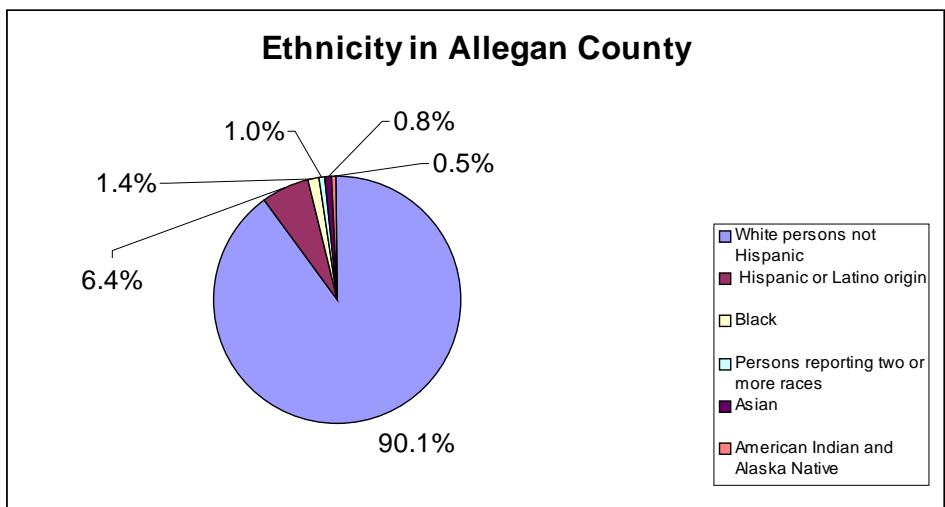
The 2006 US Census population estimate for Allegan County is 113,501. In the last five years, the population of Allegan County increased approximately 7.4%, compared with a 1.6% gain in the state of Michigan's population. Projections for Allegan County suggest the county's population could grow to 144,244 by 2020, a 3.3% increase (West Michigan Regional Planning). The population is largely comprised of White, non-Hispanics (90.1%), followed by those of Hispanic or Latino origin (6.4%) and by Blacks (1.4%).

Saugatuck Dunes State Park is located in Laketown Township, which had a population of 5,561 (US Census Bureau - 2000).

Education, Income and Employment

Most people over the age of 25 living in Allegan County have graduated high school; 15.8% have at least a Bachelors Degree. The median income per household is \$48,045, higher than the US median of \$41,994. In 2000, 9.4% of families in the area lived below the poverty level.

41,038 persons in Allegan County are in the labor force. The unemployment rate is currently 9% (Michigan Department of Labor and Economic Growth – July 2008).



Employment by Occupation

Occupation	Percent Employed
Production, transportation and material moving occupations	27.7%
Management, professional and related occupations	24%
Sales and Office	22.1%
Service	13.2%
Construction, extraction and maintenance	11.3%

The manufacturing industry and educational, health and social services make up most of the Allegan County employment, followed by the retail trade and arts, entertainment, recreation, accommodation and food services.

Employment by Industry

Industry	Percent Employed
Manufacturing	32.6%
Educational, health and social services	15.4%
Retail Trade	11%
Arts, entertainment, recreation, accommodation and food services	6%
Professional, scientific, management, administrative, and waste management services	5.2%
Transportation, Warehousing & Utilities	4.1%

82% of Allegan County residents who commute to work drive alone. Others carpool (11.5%) or walk/work from home (5.8%). Very few take public transportation (0.2%). The average commute time is 23.4 minutes.

A3 General History

History

This area was home to the Chippewa and the Pottawatomie before being granted to the United States. By 1839, a sawmill had been constructed at a site known as Singapore, a four-block community. These settlers cut most of the timber from this dune and exposed it to the elements. The Goshorn dune has grown into a blowout, which extends from Lake Michigan to Goshorn Lake.



Several hundred acres of what is now Saugatuck Dunes State Park was purchased in 1919 by self-made millionaire and inventor, Dorr E. Felt. Felt is known for his early development (1900's) of the business calculator, or mechanical adding machine, which was called the Comptometer. In 1925 Felt began construction of a large summer estate. Felt and his wife left the estate to their heirs after the Felts' passing in the late 1920's.

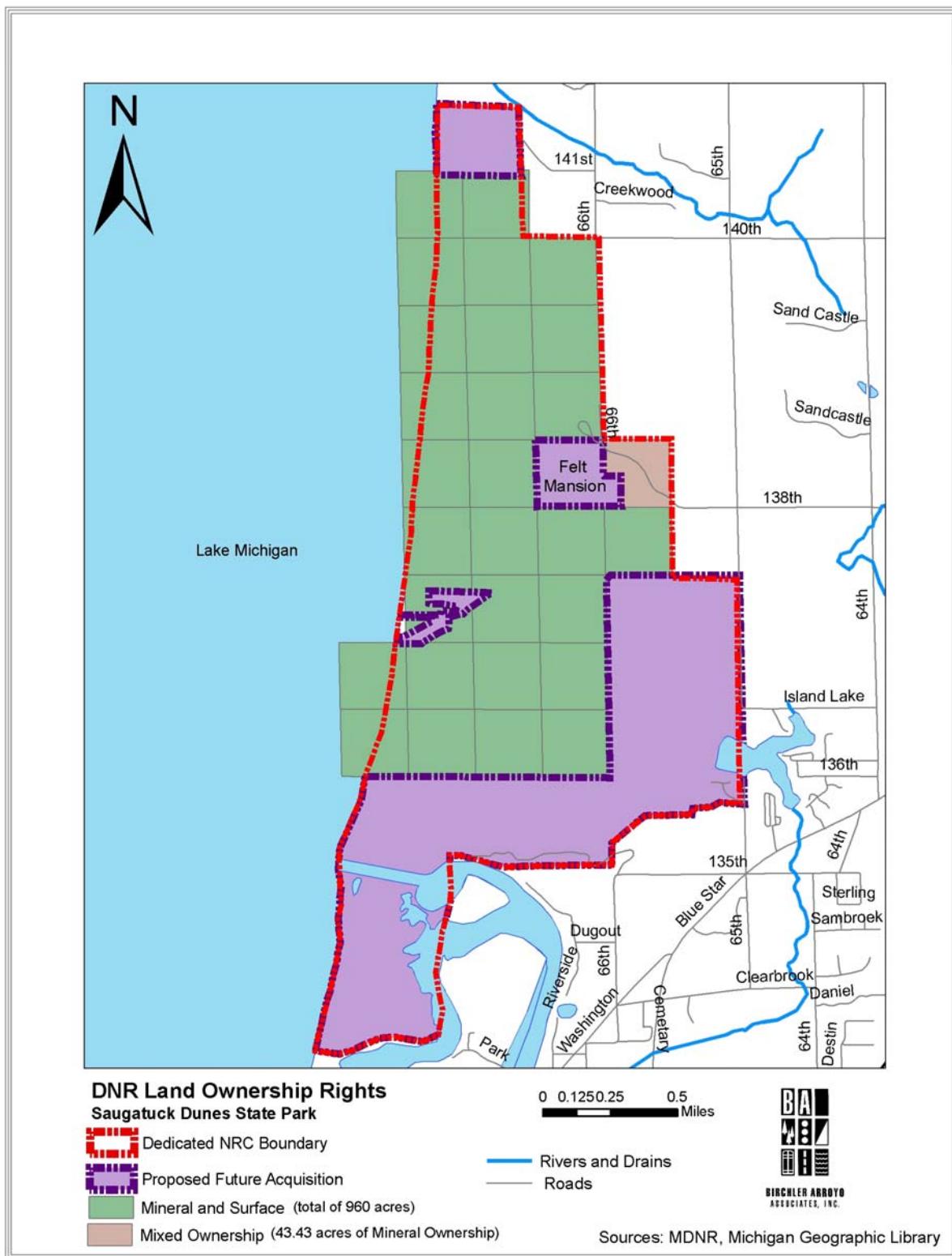
In 1948, a State DNR Reconnaissance Report identified this property as a potential site for a state park. The Felt family kept the home until 1949 when the St. Augustine Seminary, a Catholic prep school for young men, bought the mansion and grounds. The National Park Service identified this property as a potential park site in 1959.

The DNR identified this property as a potential park site again in 1970. The State Department of Corrections purchased the land from the Augustine Order in 1971 and owned the Felt mansion and grounds until the early 1990s. Laketown Township bought the mansion and surrounding 40 acres for one dollar, with the stipulation that the mansion be used for the public, and not sold or razed. It is currently undergoing restoration and is now an inholding within the state park. The state retained the carriage house.

Land Ownership:

Map 2 shows the ownership status of Saugatuck Dunes State Park.

Map 2: Land Ownership



A4. Existing Land Use, Zoning and Future Uses

Existing land use, zoning district and future land use data for this section is based on information obtained from Laketown Township and Allegan County. The data has been generalized for the purposes of this discussion. For exact representation, consult the local unit of government. A summary of the discussion that follows is provided on Table 3, and illustrated on Maps 3, 4 and 5.

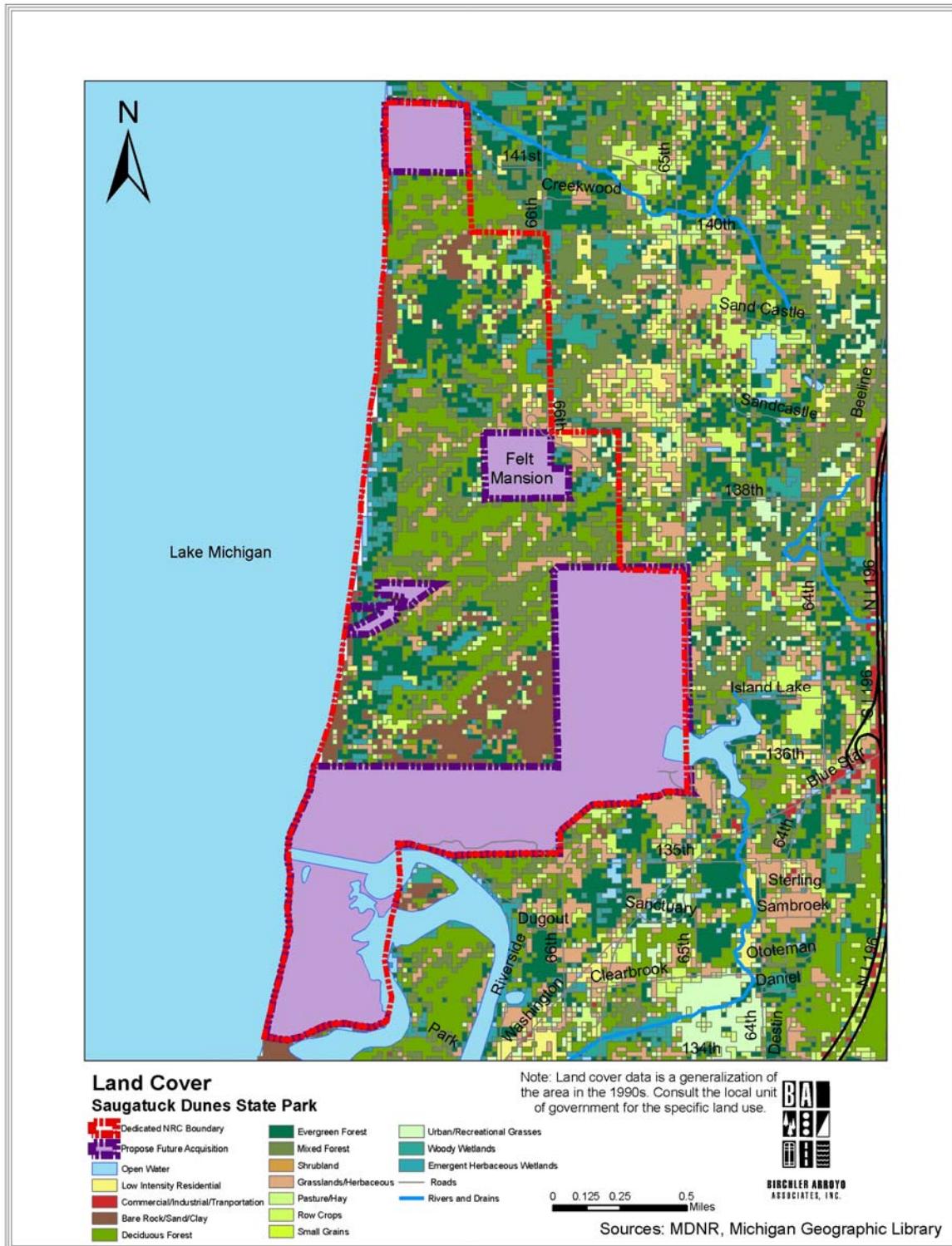
Land uses around Saugatuck Dunes State Park consists of low-intensity development, and mainly consists of single family residential. Map 3 illustrates the existing land cover for the area. The land cover categories generally correspond to the existing land uses.

Table 3: Summary of Existing Land Uses, Zoning Districts and Future Land Uses for Land Surrounding Saugatuck Dunes State Park

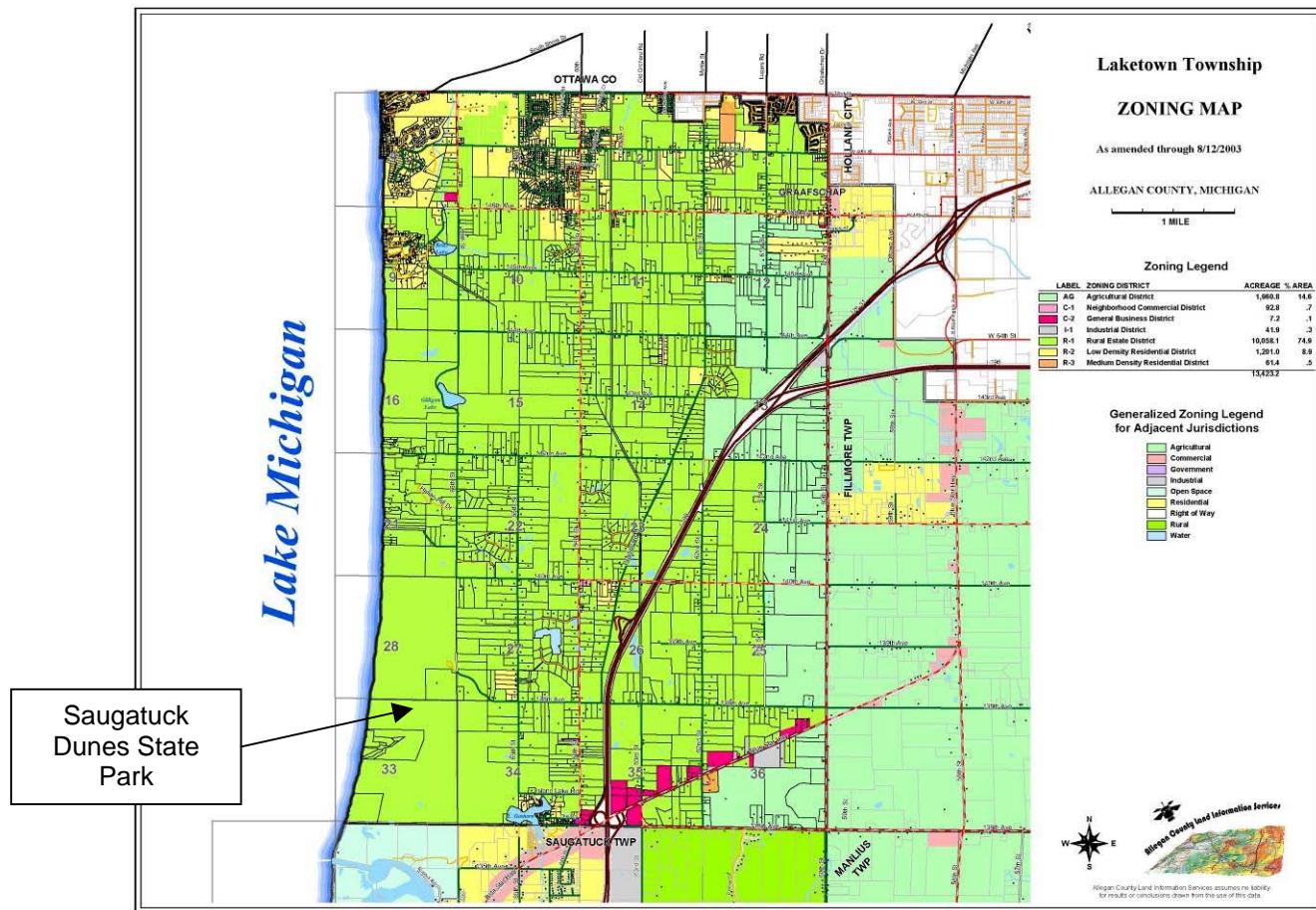
	Existing Land Uses	Zoning Districts	Future Land Uses
Saugatuck Dunes State Park	Recreational uses	R-1 Rural Estate	Recreational
Land to the North (Laketown Twp)	Lakeshore Residential, vacant	R-1 Rural Estate	Large-lot residential
Land to the East (Laketown Twp)	Rural residential	R-1 Rural Estate	Large-lot residential
Land to the South (Saugatuck Twp)	R-4 Lakeshore Open Space/R-1 Residential	Open Space	
Land to the West	NA - Bordered by Lake Michigan to the West		

Zoning districts for the area are shown on Map 4. Zoning regulates how landowners may or may not use their property. The Park and most of the surrounding land is zoned for residential uses.

Map 3: Land Cover

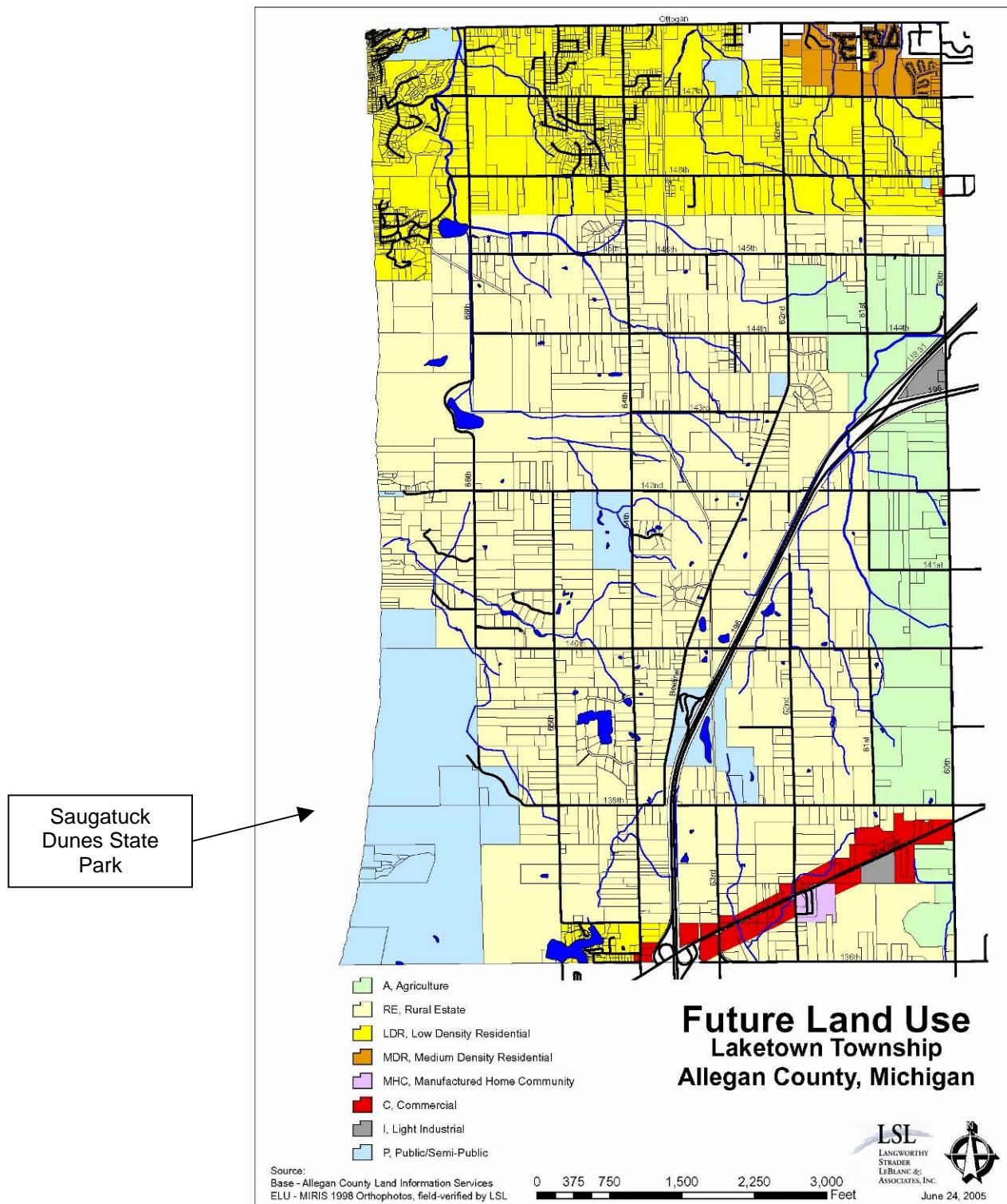


Map 4: Zoning Districts



Map courtesy of Laketown Township

Map 5: Future Land Uses



Map courtesy of Laketown Township

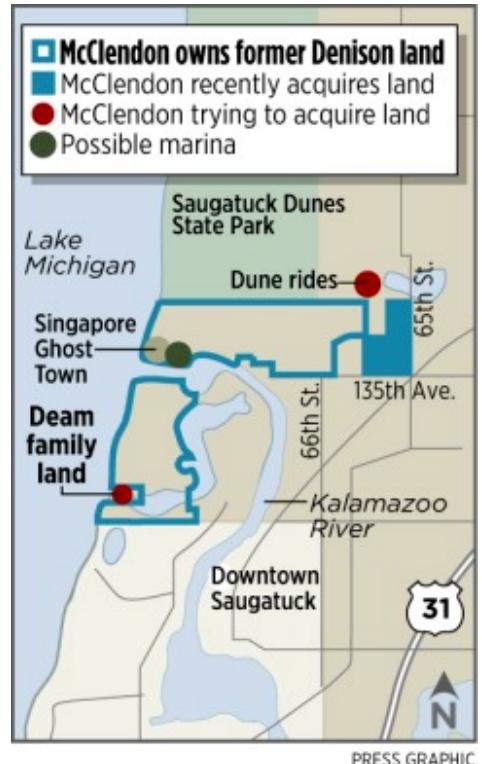
Local Land Use Issues Affecting Saugatuck Dunes State Park

The Former Denison Property

In 1955, Franklin Denison, whose family made its money building luxury yachts, bought 400 acres south of what is now Saugatuck Dunes State Park. The Kalamazoo River splits the property, with about 260 acres to the north, stretching to Saugatuck Dunes State Park, and 160 acres to the south, bordering Saugatuck city's Oval Beach. The property remained mostly undeveloped for the entire time the Denisons owned it. Upon the deaths of the Denisons, the property passed into dual ownership: the Gertrude Denison Trust and the Frank Denison Estate.

Through constraints placed on the property by the Denisons, the trusts were legally bound to secure the highest value from the property. A local group seeking to preserve the acreage had gathered \$37.5 million in commitments, but were out-bid by \$1 million dollars by Mr. McClendon, co-owner of the Seattle Super Sonics basketball team and owner of Chesapeake Energy Corp. in Oklahoma. His wife, Kathleen, grew up in nearby St. Joseph.

Mr. McClendon had offered to lease the southern 160 acres to the city of Saugatuck in exchange for zoning that would have allowed him more dense development on the remaining parcel. More recently, he temporarily withdrew his development proposal in the face of widespread concerns. It is likely that future development will take place on this property.



PRESS GRAPHIC

A5. Natural Features Assessment

Understanding the physical conditions of Saugatuck Dunes State Park (SDSP) is critical to designating management zones. Management zones must ensure that activities are compatible with the land's capacity, and sensitive areas are preserved and protected. This section reviews the ecological context of Saugatuck Dunes State Park, including climate, soils, water bodies, wetlands and areas prone to ponding, woodlands, and threatened and endangered species, or species of special concern.

A5.1 Geology and Topography

Soils

There is a wet panne area within the Natural Area. Soil textures range from sand to clay. Most surface lacustrine deposits are sand; those of the moraines are loams or clays. Along the Muskegon River at the north edge of the sub-subsection, the lacustrine sands are generally excessively drained. A large part of these sands are outwashes that contain few lenses of fine textured material to restrict drainage.

Low dunes are locally common. Poorly drained sands also characterize a large part of the northern half of the sub-subsection. Cemented B horizons are common. Finer textured subsoils are generally responsible for the poor drainage conditions. Small beach ridges and sand dunes on the poorly drained plain are excessively drained. Soils on the upper and middle slopes of moraines are generally well or moderately well drained. Moraine slopes of 6 to 12 percent are common. Poorly drained soils are restricted to drainage-ways and depressions in the moraines (NPWRC, 2006).

As seen Map 10 (Soils), the sand dune environment lends to extreme elevation changes. The lands directly behind the sand dunes are relatively flat with small rolling hills common for the landscape of this area. SDSP offers a unique contrast to the everyday scenery for the majority of the parks day users.

Water Resources

Except for Lake Michigan, no lakes or streams are found within the park. There is, however, an interdunal wetland within the 297-acre Natural Area.

SDSP lies along 2.5 miles of sandy shoreline on Lake Michigan. Lake Michigan is the third largest of the Great Lakes, covering a surface area of approximately 22,300 square miles. The average depth of Lake Michigan is 279 feet and the maximum depth reaches 923 feet. The water quality of Lake Michigan is excellent for such recreational activities as swimming, fishing, sailing, and boating.

A5.2 Ecoregional Context

SDSP lies within the Southern Michigan section (section VI), the Allegan Subsection (Subsection VI.3), and the Southern Lake Michigan Lake Plain Sub-subsection (Sub-subsection VI.3.2) of the *Regional Landscape Ecosystems of Michigan* (Albert 1995). The Allegan subsection consists of a narrow band of dunes and flat lake plain along the southeastern Lake Michigan shoreline. The subsection encompasses 2,656 square miles with elevations ranging from 580 to 998 feet above sea level. Landforms include flat lake plain, coastal sand dunes, gently rolling till plain (ground moraine) and rolling to steep end moraines. (MNFI, MSU, June 2002)

The Lake Michigan subsection is entirely underlain by Paleozoic bedrock. Devonian shale occurs in the southern quarter. Oil wells tap petroleum reservoirs in the underlying Devonian-age marine deposits. (Dorr and Eschman 1984). Sand dunes up to 200 feet high form a 1 to 3 mile wide discontinuous band along the shore of Lake Michigan.

The major period of dune formation was during Nipissing Great Lakes time, approximately 4,500 years ago. Smaller foredunes have formed during more recent times of low water levels of Lake Michigan. Fine textured end and ground moraines exist, and most are flat to gently rolling. Low dunes are common for several miles inland and are associated with Glacial Great Lake shorelines as old a 16,000 years before present. The topography of most of the lacustrine deposits is flat to gently rolling, gradually increasing in elevation in the vicinity of the lakeshore. (MNFI, MSU, June 2002)

Map 6: Ecoregional Context

Section VI.1 Washtenaw

VI.1.1. Maumee Lake Plain
 VI.1.2. Ann Arbor Moraines
 VI.1.3. Jackson Interlobate

Section VI.2 Kalamazoo Interlobate

VI.2.1. Battle Creek Outwash Plain
 VI.2.2. Cassopolis Ice-Contact Ridges

Section VI.3 Allegan

VI.3.1. Berrien Springs
 VI.3.2. Southern Lake Michigan Lake Plain
 VI.3.3. Jamestown

Section VI.4 Ionia

VI.4.1. Lansing
 VI.4.2. Greenville
Section VI.5 Huron

VI.5.1. Sandusky Lake Plain
 VI.5.2. Lum Interlobate

Section VI.6 Saginaw Bay

Lake Plain

Section VII.1 Arenac

VII.1.1. Standish
 VII.1.2. Wiggins Lake
Section VII.2 High Plains

VII.2.1. Cadillac

VII.2.2. Grayling

Outwash Plain

VII.2.3. Vanderbilt

Moraines

Section VII.3 Newaygo

Outwash Plain

VII.4. Manistee

VII.5. Leelanau and Grand Traverse Peninsula

VII.5.1. Williamsburg

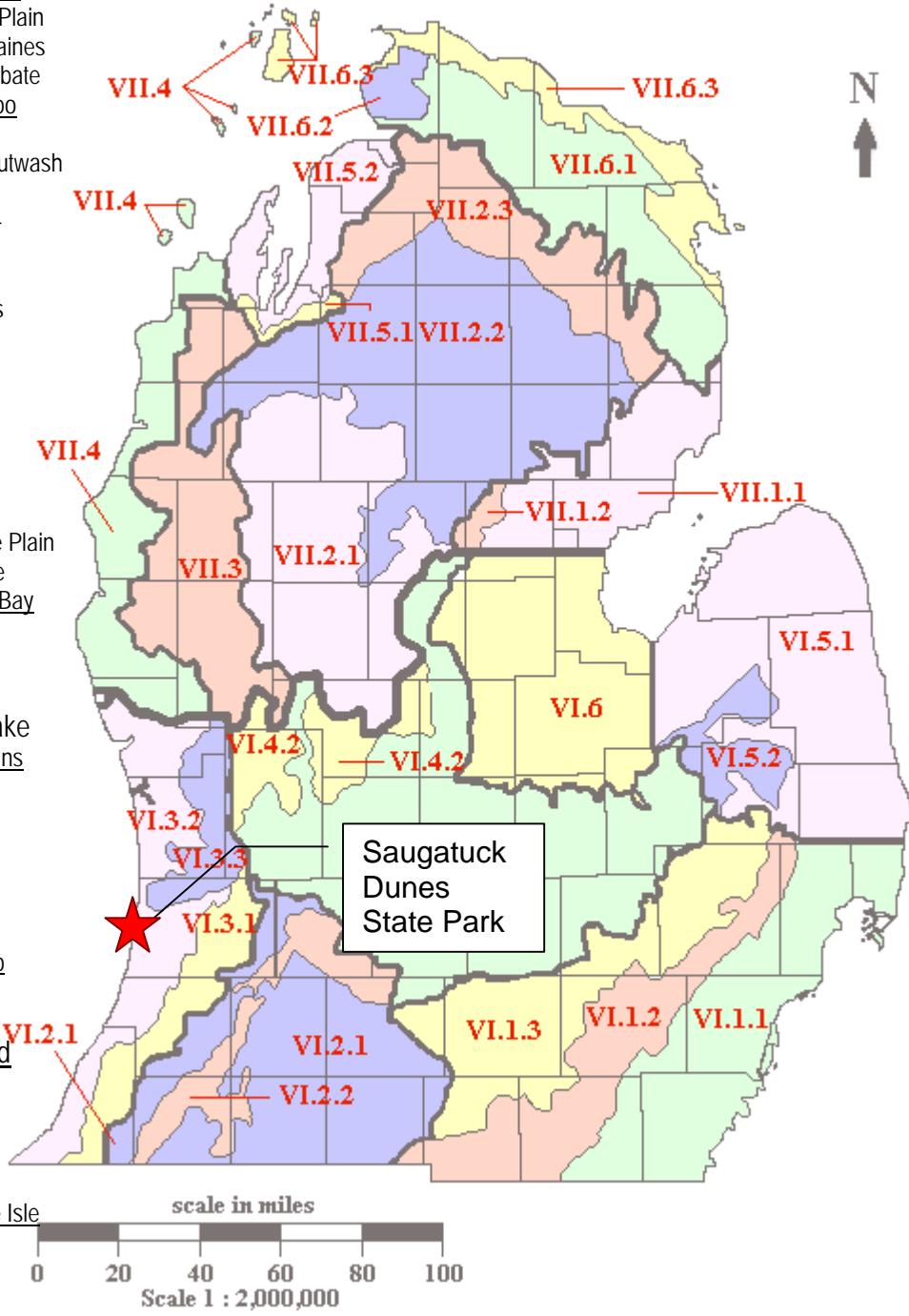
VII.5.2. Traverse City

Section VII.6 Presque Isle

VII.6.1. Onaway

VII.6.2. Stutsmanville

VII.6.3. Cheboygan



Source: *Regional Landscape of Ecosystems of Michigan, Minnesota, and Wisconsin: A Working Map and Classification General Technical Report NC-178* (Fourth Revision: July 1994).

Climate

The climate of the section is strongly influenced by the Maritime Tropical air mass, with some lake-effect snows and moderation of temperature from Lake Michigan (Albert et al. 1986, Denton 1985, Eichenlaub 1979, Eichenlaub et al. 1990). Winter precipitation is higher (7 to 10 inches; 23 to 26 percent of annual precipitation) and more of it falls as rain than in Wisconsin's Section V to the west or Michigan's Section VII to the north. The growing season is longer and warmer than that of Sections VII to XI and similar to that of Sections I to V.

- Mean daily temperature during winter months (Dec, Jan, Feb): 26.6°F
- Mean daily temperature during spring months (Mar, Apr, May): 46.3°F
- Mean daily temperature during summer months (Jun, Jul, Aug): 69.3°F
- Mean daily temperature during fall months (Sept, Oct, Nov): 51.3°F
- Mean annual precipitation: 36.25 inches
- Average annual total snow fall: 75 inches

Source: *Michigan State University*

Bedrock Geology: The sub-subsection is entirely underlain by Paleozoic bedrock; Devonian shale occurs in the southern quarter; Mississippian shale, sandstone, dolomite, and gypsum occur farther to the north (Dorr and Eschman 1984, Milstein 1987). Overlying glacial drift is generally thick, from 50 to 350 feet (Akers 1938). There are very localized bedrock exposures of Coldwater shale in Ottawa County. Oil wells tap petroleum reservoirs in the underlying Devonian-age marine deposits (Dorr and Eschman 1984).

Landforms: Sand dunes, up to 200 feet high, form a 1- to 3-mile-wide discontinuous band along the shore of Lake Michigan. The major period of dune formation was during Nipissing Great Lakes time, approximately 4,500 years ago; but smaller foredunes have formed during more recent times of low-water levels of Lake Michigan (Dorr and Eschman 1984).

Fine-textured end and ground moraines were concentrated in the southern half of the sub-subsection. Most of the moraines are flat to gently rolling.

In the northern half, there were extensive sand plains. Large deltas were associated with the Glacial Grand and Muskegon Rivers. Low dunes are common several miles inland; these dunes are associated with Glacial Great Lake shorelines as old as 16,000 years B.P. The topography of most of the lacustrine deposits is flat to gently rolling, gradually increasing in elevation from near the lakeshore.

Lakes and Streams: There are a few small kettle lakes on the sand lake plain. The water level of many of these lakes fluctuates greatly, leaving them almost dry in some summers. These fluctuations result in a distinctive disjunct flora from the Atlantic and Gulf Coastal Plains along the lake margins. There are also a few small lakes on the

moraines. Several of the larger rivers, including the Black, Kalamazoo, Grand, Muskegon, and White, have sand dunes where they meet Lake Michigan, creating small lakes behind the dunes. There are often extensive marshes within these shallow lakes.

Soils: Soil textures range from sand to clay. Most surface lacustrine deposits are sand; those of the moraines are loams or clays.

Along the Muskegon River at the north edge of the sub-subsection, the lacustrine sands are generally excessively drained. A large part of these sands is outwash that contain few lenses of finetextured material to restrict drainage. Low dunes are locally common.

Poorly drained sands also characterize a large part of the northern half of the sub-subsection. Cemented B horizons are common. Finer textured subsoils are generally responsible for the poor drainage conditions. Small beach ridges and sand dunes on the poorly drained plain are excessively drained.

Soils on the upper and middle slopes of moraines are generally well or moderately well drained. On moraines, slopes of 6 to 12 percent are common. Poorly drained soils are restricted to drainage-ways and depressions in the moraines.

Presettlement Vegetation: In the southern part of the sub-subsection, forests were dominated by beech and sugar maple on both fine-textured moraines and sandy lacustrine deposits (Comer et al. 1993a). In the northern half, forests dominated by eastern hemlock and beech occupied most of the sand lake plain and fine-textured moraines.

In the south, white oak and black oak were common along the bluffs and broad ridges above major rivers, including the Galien, St. Joseph, and Paw Paw. Farther north, upland conifer forest dominated by white pine, along with white oak and some black oak, occupied the bluffs and broad ridges above the major rivers, including the Grand, Muskegon, and Kalamazoo, and also the sandy plains adjacent to White and Muskegon Lakes. Native American fire management may have maintained the white pine and oaks along the rivers.

The dunes supported forests dominated by eastern hemlock and beech. Hemlock-beech forest was the dominant forest type along the dunes of the entire shoreline as far south as Benton Harbor, near the southern edge of the sub-subsection. Although hemlock and beech were the dominant species, white pine, red oak, white oak, and sugar maple were also present. At the northern edge, white pine became increasingly dominant on the dunes, often with hemlock or white oak as co-dominants. Several large areas of open, blowing sand (blowouts) were noted in GLO surveys. These areas, generally less than a half mile wide, extended as much as a mile inland from the shoreline.

The largest wetlands were located along the rivers, where both extensive marshes and lowland hardwoods, often dominated by either black ash or silver maple, formed broad bands for several miles inland from Lake Michigan. Both tamarack swamp and lowland hardwoods swamp were located in bowl-shaped depressions behind the dunes.

Further inland, small kettle depressions within areas of end moraine supported small marshes and both lowland hardwoods and lowland conifers. Broad depressions on both the flat sand lake plain and the ground moraine contained emergent marshes, wet prairies, and both lowland hardwoods and lowland conifers.

Natural Disturbance: The GLO survey found several blowouts in dunes. Although not noted by the surveyors, seasonal water level fluctuations occur on the lake plain, often resulting in dominance by either prairie or marsh species tolerant of such fluctuations. Such fluctuations can result in major cyclical changes in plant composition in shallow ponds or depressions as water levels change over a period of several years.

Native American land management with fire may have had a major impact on the vegetation in portions of the sub-subsection. There were local references by surveyors to burned lands along the Galien River and to Indian fields and trails along the Kalamazoo, Grand, and Muskegon Rivers.

Present Vegetation and Land Use: In the past, white pine and hemlock were harvested on the sand lake plain. Sand was mined on some of the dunes, primarily for use as molding and foundry sand. Most of the lands of the sub-subsection are in agriculture. Farming of the sand lake plain required large-scale drainage. Poorly drained portions of the lake plain now support nurseries and blueberry and asparagus farming. Better drained soils are converted to orchards and vineyards.

Some of the droughtiest and most poorly drained sandy soils remain as wildlife management areas or as recreational lands, either forested or wetland. Large portions of the coastal sand dunes are protected as park lands, but there is also heavy residential development of sections of the dunes.

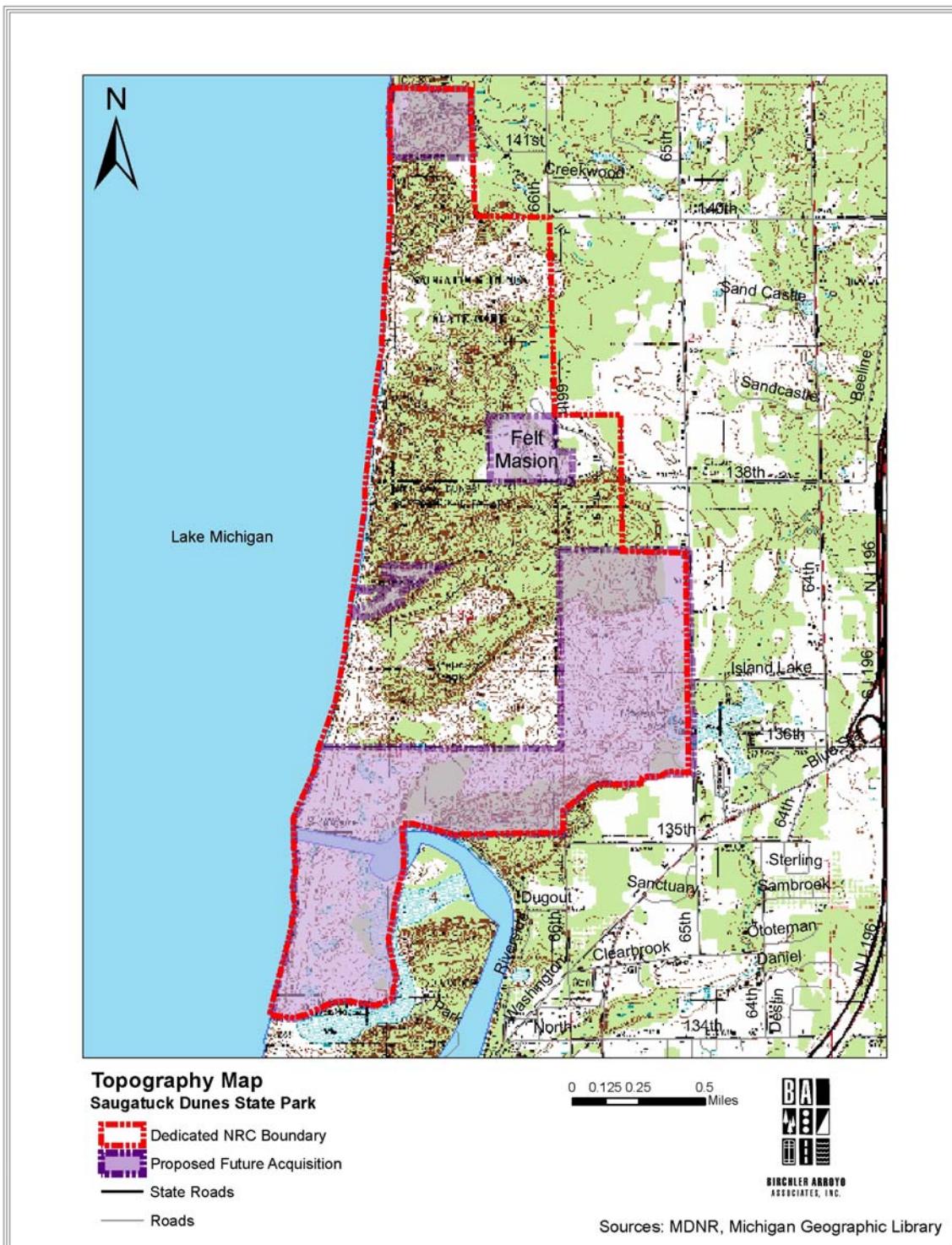
Rare Plant Communities: The wet prairies of the sub-subsection are distinct from those found in other parts of the State and are called lakeplain wet and wet-mesic prairies. Many of the marshes, which occupy shallow depressions between beach ridges or sand spits (often several miles inland from the present lakeshore), are rich in disjunct species from the Atlantic and Gulf Coastal Plains of the U.S.

Rare Plants: Most of the rare plants are coastal plain disjuncts from the Atlantic and Gulf coasts; there are also species characteristic of the sand dunes of the Great Lakes. *Carex platyphylla* (broad-leaved sedge), *Cirsium pitcheri* (Pitcher's thistle), *Echinodorus tenellus* (dwarf burhead), *Eleocharis melanocarpa* (black-fruited spike-rush), *Eleocharis tricostata* (three-ribbed spike-rush), *Hibiscus moscheutos* (swamp rose-mallow), *Juncus*

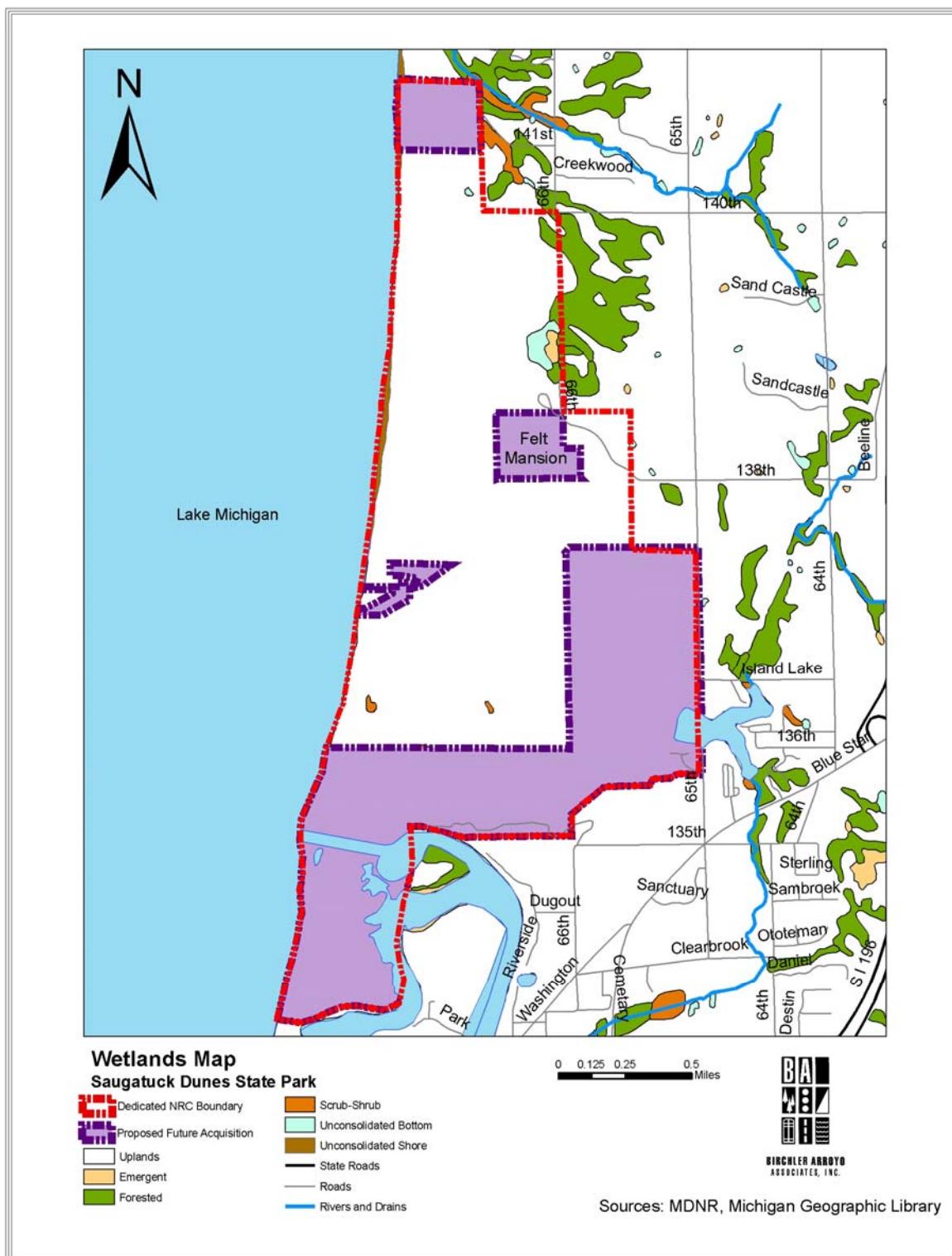
biflorus (two-flowered rush), *Juncus scirpoides* (scirpus-like rush), *Lycopodium appressum* (appressed bog clubmoss), *Orobanche fasciculata* (fascicled broom-rape), *Panicum longifolium* (long-leaved panic-grass), *Potamogeton bicupulatus* (waterthread pondweed), *Pycnanthemum verticillatum* (whorled mountain-mint), *Rhexia mariana* var. *mariana* (Maryland meadow-beauty), *Rhexia virginica* (meadow-beauty), *Sabatia angularis* (rose-pink), *Scirpus hallii* (Hall's bulrush), *Scleria reticularis* (netted nut-rush), *Sisyrinchium atlanticum* (Atlantic blue-eyed grass), *Utricularia subulata* (zigzag bladderwort).

Rare Animals: *Chlidonias niger* (black tern), *Clonophis kirtlandii* (Kirtland's snake), *Dendroica cerulea* (cerulean warbler), *Dendroica discolor* (prairie warbler), *Dendroica dominica* (yellow-throated warbler), *Hesperia ottoe* (Ottoe skipper), *Incisalia irus* (frosted elfin), *Lanius ludovicianus* (loggerhead shrike), *Lycaeides melissa samuelis* (Karner blue), *Microtus ochrogaster* (prairie vole).

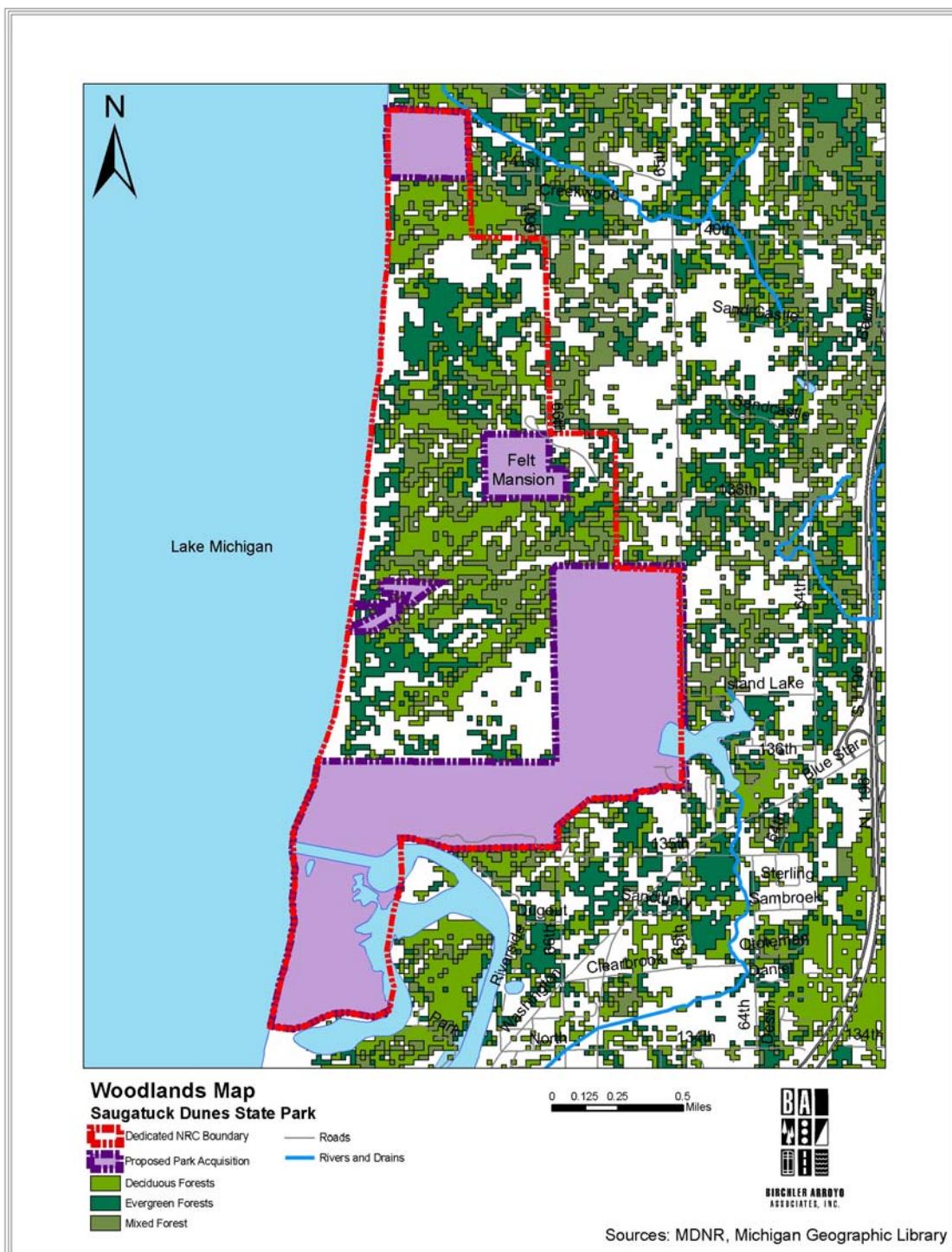
Map 7: Topography



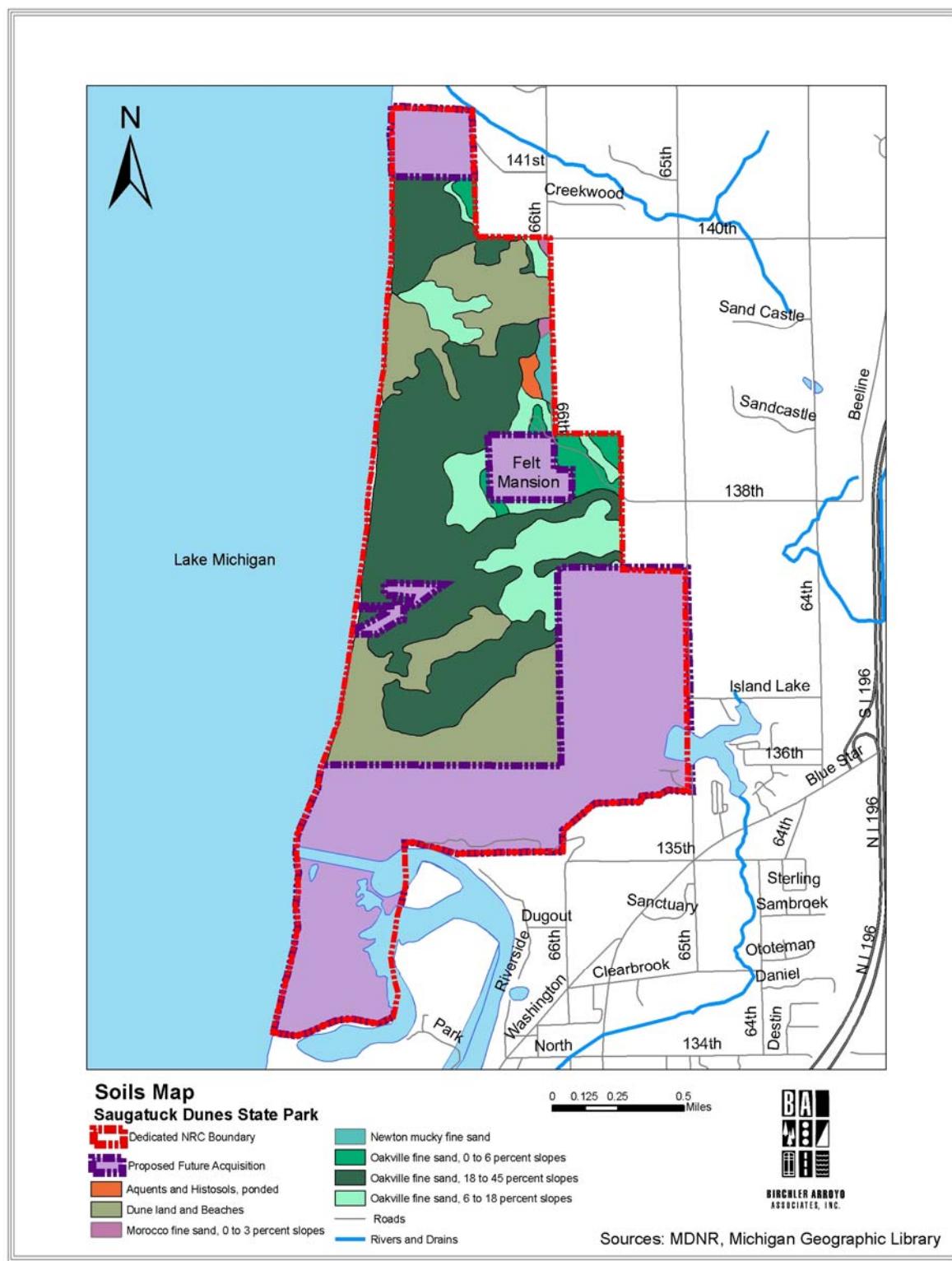
Map 8: Wetlands



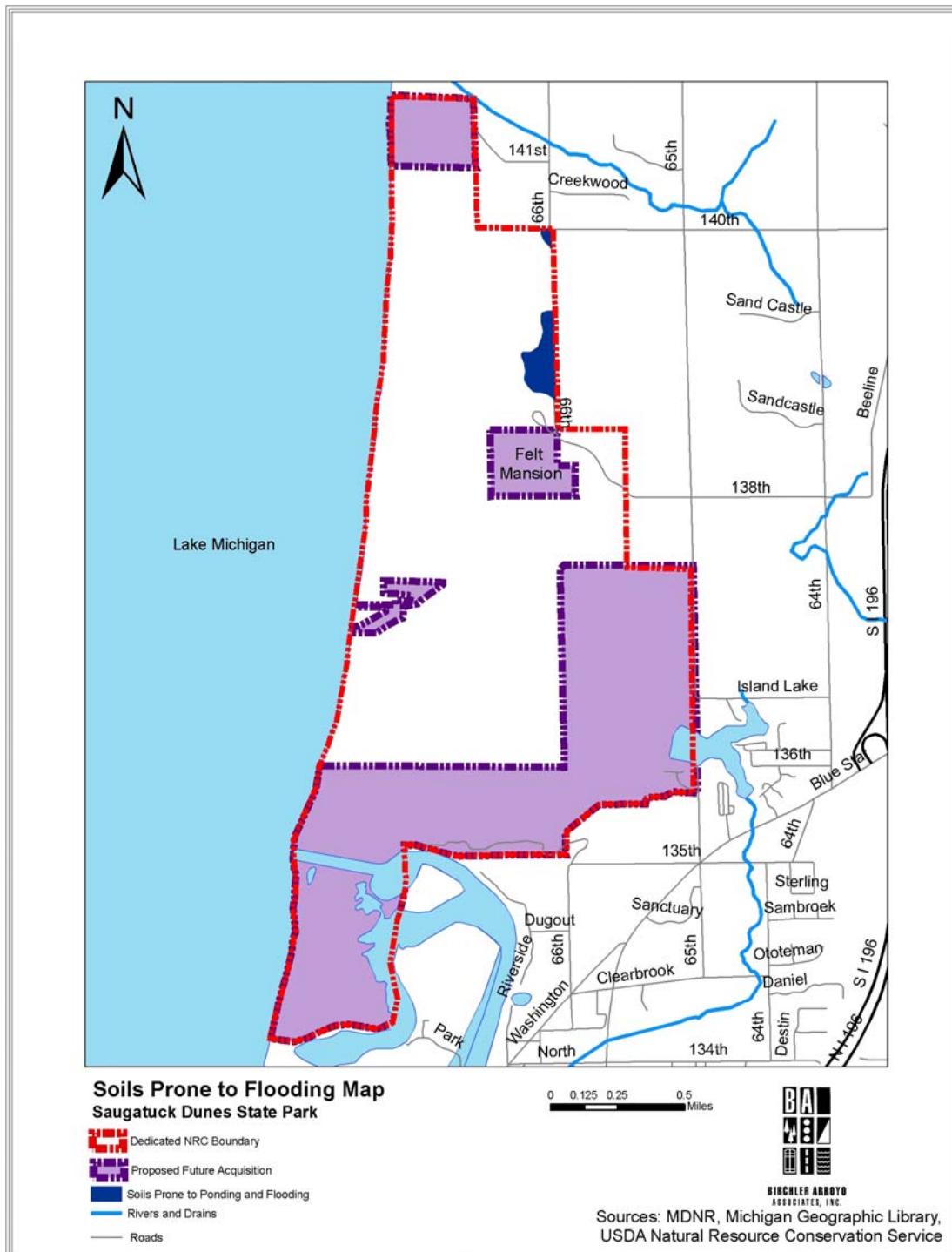
Map 9: Woodlands



Map 10: Soils



Map 11: Special Flood Hazard



A5.3 Flora & Fauna

Flora

SDSP is home to a wide variety of plants, including the threatened Pitchers Thistle. This is one of only four known localities for Pitchers Thistle in southern Michigan.

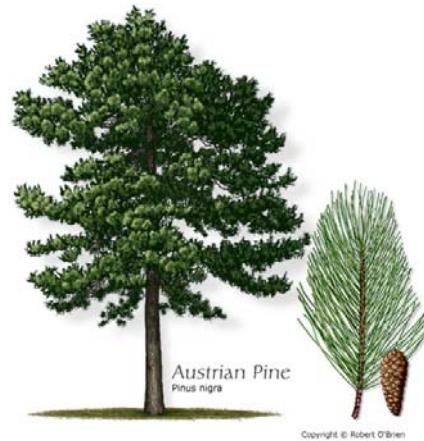
Some of the other plants found in the area include: the native Jack Pine, marram grasses, sand reed grasses, herbs such as wormwood horse mint, and milkweed. Cottonwood, sand cherry and red osier dogwoods comprise the dominant woody vegetation of the foredunes. The wet pannes contain native rushes, sedges, herbs (Baltic rush, Goldenrod, Wild Strawberry, and Jack pine). The forested dune community includes such trees as sugar maple, red oak, black cherry, American Beech, Basswood, northern pin oak, blue beech and hemlock. Shrubs in this area include greenbriar, Solomon's seal, common blue violet, partridge berry, round lobed hepatica, maple leafed arrowwood, blue stemmed goldenrod, rice grass, and several species of ground pine.

Exotic species: Austrian Pine

(this portion is a generalized overview of the dissertation of Lissa Maria Legee)

The sand dunes of the Great Lakes comprise a dynamic, yet fragile ecological system maintained by continuous endogenous disturbance in the form of sand movement. As a result of their unstable substrates, available space (i.e. uncolonized ground), and small population sizes, dune systems may be particularly vulnerable to invasion by exotic species and may be severely impacted by new species which threaten to alter the natural disturbance regime. Despite the potential vulnerability of dunes to invasion, however, exotic tree species have been introduced repeatedly as potential dune stabilizers in the Great Lakes dune system.

For example, at the Saugatuck dune system, private land owners planted more than 30,000 conifer seedlings, the majority of which were Austrian Pines in an effort to stabilize the shifting sand and maintain property values. A large portion was planted in the now Dedicated Natural Area. During a 16-year period beginning in 1956, the pines were introduced into four distinct stages: foredunes, forest edges, wet pannes, and inland blowouts. Of the approximately 26,000 Austrian Pines planted at SDSP, an estimated 21,366 were still present on the dunes in 1988: an 81% survival rate for trees which were 16-32 years of age.



Any permanent change in the natural disturbance of the dune system would constitute an altered ecosystem level effect, which could have irreversible consequences for the maintenance for the dunes system. Additionally, invaders may influence dune succession. The presence of a large, non-native evergreen in early successional stages may have the potential to accelerate the rate of succession or alter its trajectory by increasing nutrient inputs, developing soils, and redistributing water in the soil column.

The DNRE is working towards eradicating the non-native Austrian Pine through stewardship / park projects. The goal is to bring back the natural habitat of the area. The trees are cut and taken to a prescribed burning location (outside of the Natural Area) during the winter. This process allows the park to destroy the trees without harming any native grasses under the snow.

Fauna

Mammals commonly found at SDSP (from the MNFI report) include white-tailed deer; gray, red, and fox squirrels; eastern chipmunk; monarch butterfly; eastern cottontail; and woodchuck. A variety of birds include downy woodpeckers; eastern wood-pewees; savanna sparrows; red-eyed vireos; black-capped chickadees; white-breasted nuthatches; northern cardinals; and red-tailed hawks frequent the park.

Reptiles commonly found at SDSP include the eastern box turtle and common garter snake. Amphibians include a variety of frogs such as the green frog, the bullfrog, eastern gray treefrog and Blanchard's cricket frog.

A5.4 Threatened, Endangered and Special Concern Species

The only rare animal to be documented from SDSP is the endangered prairie warbler. It was documented by a zoologist during a survey in 1998. Other rare animals that have potential to occur within the park include three that are state-listed as 'Special Concern' reptile species, including the Blanding's turtle, eastern box turtle, and the black rat snake. In addition to rare birds and reptiles, SDSP has the potential to harbor the woodland vole. Further surveys are needed to confirm or deny their presence at SDSP.

The Michigan Natural Features Inventory has identified species of special concern (SC), threatened (T), endangered (E), and extirpated (X) species as protected by the State of Michigan in Allegan County, and may be found in Saugatuck Dunes State Park. Some species have federal protection status and are noted as listed endangered (LE) or listed threatened (LT). Species identified as being considered for protected status are noted by (C).

Scientific Name	Common Name	Federal Status	State Status
<i>Acipenser fulvescens</i>	Lake Sturgeon		T
<i>Acris crepitans blanchardi</i>	Blanchard's Cricket Frog		SC
<i>Adlumia fungosa</i>	Climbing Fumitory		SC
<i>Alasmidonta marginata</i>	Elktoe		SC
<i>Alasmidonta viridis</i>	Slippershell Mussel		SC
<i>Ambystoma opacum</i>	Marbled Salamander		T
<i>Ammodramus savannarum</i>	Grasshopper Sparrow		SC
<i>Arabis missouriensis</i> var. <i>deamii</i>	Missouri Rock-cress		SC
<i>Baptisia lactea</i>	White or Prairie False Indigo		SC
<i>Bartonia paniculata</i>	Panicled Screw-stem		T
<i>Berula erecta</i>	Cut-leaved Water-parsnip		T
Bog			
<i>Buteo lineatus</i>	Red-shouldered Hawk		T
<i>Carex alboluteascens</i>	Greenish-white Sedge		T
<i>Carex festucacea</i>	Fescue Sedge		SC
<i>Chlidonias niger</i>	Black Tern		SC
<i>Cirsium pitcheri</i>	Pitcher's Thistle	LT	T
<i>Cistothorus palustris</i>	Marsh Wren		SC
<i>Clemmys guttata</i>	Spotted Turtle		T
<i>Clemmys insculpta</i>	Wood Turtle		SC
Coastal Plain Marsh	Infertile Pond/marsh, Great Lakes Type		
<i>Coregonus artedi</i>	Cisco or Lake Herring		T
<i>Cryptotis parva</i>	Least Shrew		T
<i>Cyclonaias tuberculata</i>	Purple Wartyback		SC
<i>Cyperus flavescens</i>	Yellow Nut-grass		SC
<i>Cypripedium candidum</i>	White Lady-slipper		T
<i>Dendroica cerulea</i>	Cerulean Warbler		SC
<i>Dendroica discolor</i>	Prairie Warbler		E
<i>Dendroica dominica</i>	Yellow-throated Warbler		T
Dry-mesic Northern Forest			
Dry-mesic Southern Forest			
<i>Echinodorus tenellus</i>	Dwarf Burhead		E
<i>Eleocharis engelmannii</i>	Engelmann's Spike-rush		SC
<i>Eleocharis melanocarpa</i>	Black-fruited Spike-rush		SC
<i>Eleocharis microcarpa</i>	Small-fruited Spike-rush		E
<i>Eleocharis tricostata</i>	Three-ribbed Spike-rush		T
<i>Emys blandингii</i>	Blanding's Turtle		SC
<i>Erimyzon oblongus</i>	Creek Chubsucker		E
<i>Erynnis persius persius</i>	Persius Duskywing		T
<i>Eupatorium fistulosum</i>	Hollow-stemmed Joe-pye-weed		T
<i>Euphorbia commutata</i>	Tinted Spurge		T
<i>Flexamia delongi</i>	Leafhopper		SC
<i>Fontigens nickliniana</i>	Watercress Snail		SC
<i>Fuirena squarrosa</i>	Umbrella-grass		T
<i>Gavia immer</i>	Common Loon		T
<i>Gentiana puberulenta</i>	Downy Gentian		E
<i>Geum triflorum</i>	Prairie-smoke		T
Great Blue Heron Rookery	Great Blue Heron Rookery		

Scientific Name	Common Name	Federal Status	State Status
Great Lakes Marsh			
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree		SC
<i>Haliaeetus leucocephalus</i>	Bald Eagle		T
Hardwood-Conifer Swamp			
<i>Helianthus hirsutus</i>	Whiskered Sunflower		SC
<i>Hemicarpha micrantha</i>	Dwarf-bulrush		SC
<i>Hesperia ottoe</i>	Ottoe Skipper		T
<i>Hibiscus moscheutos</i>	Swamp Rose-mallow		SC
<i>Hieracium paniculatum</i>	Panicled Hawkweed		SC
<i>Hiodon tergisus</i>	Mooneye		T
<i>Hydrastis canadensis</i>	Goldenseal		T
<i>Ictiobus niger</i>	Black Buffalo		SC
<i>Incisalia irus</i>	Frosted Elfin		T
Interdunal Wetland	Alkaline Shoredunes Pond/marsh, Great Lakes Type		
<i>Isoetes engelmannii</i>	Appalachian Quillwort		E
<i>Juncus brachycarpus</i>	Short-fruited Rush		T
<i>Juncus scirpoides</i>	Scirpus-like Rush		T
<i>Juncus vaseyi</i>	Vasey's Rush		T
<i>Lanius ludovicianus migrans</i>	Migrant Loggerhead Shrike		E
<i>Lechea pulchella</i>	Leggett's Pinweed		T
<i>Lepisosteus oculatus</i>	Spotted Gar		SC
<i>Linum sulcatum</i>	Furrowed Flax		SC
<i>Linum virginianum</i>	Virginia Flax		T
<i>Ludwigia sphaerocarpa</i>	Globe-fruited Seedbox		T
<i>Lycaeides melissa samuelis</i>	Karner Blue	LE	T
<i>Lycopodium appressum</i>	Northern Prostrate Clubmoss		SC
Mesic Northern Forest			
Mesic Southern Forest	Rich Forest, Central Midwest Type		
<i>Microtus pinetorum</i>	Woodland Vole		SC
<i>Notropis dorsalis</i>	Bigmouth Shiner		
<i>Notropis texanus</i>	Weed Shiner		X
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron		SC
Oak-Pine Barrens			
<i>Oecanthus lalicis</i>	Tamarack Tree Cricket		SC
Open Dunes	Beach/shoredunes, Great Lakes Type		
<i>Panax quinquefolius</i>	Ginseng		T
<i>Pandion haliaetus</i>	Osprey		T
<i>Panicum longifolium</i>	Long-leaved Panic-grass		T
<i>Pantherophis spiloides</i>	Black Rat Snake		SC
<i>Papaipema beeriana</i>	Blazing Star Borer		SC
<i>Papaipema maritima</i>	Maritime Sunflower Borer		SC
<i>Papaipema sciata</i>	Culvers Root Borer		SC
<i>Papaipema speciosissima</i>	Regal Fern Borer		SC
<i>Platanthera ciliaris</i>	Orange or Yellow Fringed Orchid		T
<i>Pleurobema sintoxia</i>	Round Pigtoe		SC
<i>Polygala cruciata</i>	Cross-leaved Milkwort		SC
<i>Polygonum careyi</i>	Carey's Smartweed		T

Scientific Name	Common Name	Federal Status	State Status
<i>Potamogeton bicupulatus</i>	Waterthread Pondweed		T
Prairie Fen	Alkaline Shrub/herb Fen, Midwest Type		
<i>Protonotaria citrea</i>	Prothonotary Warbler		SC
<i>Psilocarya scirpoides</i>	Bald-rush		T
<i>Pycnanthemum verticillatum</i>	Whorled Mountain-mint		SC
<i>Pygarctia spraguei</i>	Sprague's Pygarctia		SC
<i>Rallus elegans</i>	King Rail		E
<i>Rhexia mariana</i> var. <i>mariana</i>	Maryland Meadow-beauty		T
<i>Rhexia virginica</i>	Meadow-beauty		SC
<i>Rhynchospora macrostachya</i>	Tall Beak-rush		SC
<i>Rhynchospora nitens</i>	Short-beaked Baldrush		
<i>Rhynchospora recognita</i>	Globe Beak-rush		E
<i>Rotala ramosior</i>	Tooth-cup		SC
<i>Scirpus hallii</i>	Hall's Bulrush		T
<i>Scirpus torreyi</i>	Torrey's Bulrush		SC
<i>Scleria reticularis</i>	Netted Nut-rush		T
<i>Scleria triglomerata</i>	Tall Nut-rush		SC
<i>Seiurus motacilla</i>	Louisiana Waterthrush		SC
<i>Sistrurus catenatus</i> <i>catenatus</i>	Eastern Massasauga	C	SC
<i>Sisyrinchium atlanticum</i>	Atlantic Blue-eyed-grass		T
Southern Hardwood Swamp			
<i>Spiza americana</i>	Dickcissel		SC
<i>Sporobolus clandestinus</i>	Dropseed		SC
<i>Sporobolus heterolepis</i>	Prairie Dropseed		SC
<i>Strophostyles helvula</i>	Trailing Wild Bean		SC
<i>Terrapene carolina</i> <i>carolina</i>	Eastern Box Turtle		SC
<i>Tradescantia bracteata</i>	Long-bracted Spiderwort		X
<i>Trichostema dichotomum</i>	Bastard Pennyroyal		T
<i>Triphora trianthophora</i>	Three-birds Orchid		T
<i>Utricularia subulata</i>	Zigzag Bladderwort		T
<i>Venustaconcha ellipsiformis</i>	Ellipse		SC
Wet-mesic Sand Prairie			
<i>Wilsonia citrina</i>	Hooded Warbler		SC
<i>Zizania aquatica</i> var. <i>aquatica</i>	Wild-rice		T

Most *Species of Special Concern* are noted as such because of their declining populations in the state. Should these species continue to decline, they would be recommended for Threatened or Endangered status. The goal is protection of 'Special Concern' species before they reach dangerously low population levels. A "threatened" species is one that is likely to become endangered in the near future. An endangered species is one that is in danger of extinction throughout all or a significant portion of its range.

A6. Cultural and Historic Resources

Physical Environment

The dunes at Saugatuck range from 600-800 feet above the lake water level. The high dunes are thought to be 4,000 years old and would then be related to the high water levels of the Nipissing stage of the glacial Great Lakes. Old structures include two to three large cement underground water storage tanks from Felt mansion days, including one off the main trail close to the beach and another to the south-east of the mansion east of the access road.

Cultural Environment

In 1821, the Chicago Treaty resulted in the lands of Barry and Allegan County being transferred from the Chippewa and the Pottawatomie to the United States in return for yearly payments from the US. In the pre-settlement days of around 1829, an area of the Natural Area, known as the Goshorn Dune, was significantly forested. By 1839, a sawmill had been constructed at a site known as Singapore, a four-block community. These settlers cut most of the timber from this dune and exposed it to the elements. The Goshorn dune has grown into a blowout, which in 1938 covered over one square mile. This blowout extends from Lake Michigan to Goshorn Lake.

Singapore, one of Michigan's most famous ghost towns, rests beneath the sands near the mouth of the Kalamazoo River (south of Saugatuck Dunes State Park). As noted on the State of Michigan Historic Marker, erected at the Saugatuck Village Hall in 1958:

[Singapore] was founded in the 1830's by New York land speculators, who hoped it would rival Chicago or Milwaukee as a lake port. Singapore was a busy lumbering town until the 1870's. With three mills, two hotels, several general stores, and a renowned "Wild-cat" bank, it outshone its neighbor to the south, "The Flats," as Saugatuck was then called. When the supply of timber was exhausted, the mills closed and the once bustling waterfront grew quiet. The people left, most of them settling in Saugatuck. Gradually, Lake Michigan's shifting sand buried Singapore.

Over the years, artists were drawn to the area, inspired by the natural beauty. According to the book, Painting the Town: A History of Art in Saugatuck and Douglas, by Kit Lane (1997):

Beginning in the 1890s, hundreds of city artists, mostly from Chicago, flocked to the Saugatuck-Douglas area for its unspoiled lakes, forests, dunes, and picturesque villages. The great industrial boom in large cities like Chicago and Detroit led to a shocking increase in wealth and mechanization but also brought overcrowding, noise, and dirt. These urban artists sought escape from the complexities of city life and came to believe that the wholesomeness of the natural landscape and

"the life of the plain people" represented the genuine America. By 1930, so many city artists arrived every summer that several art schools were organized in Saugatuck, including the Ox-Bow Summer School of Painting, established by painters from the Art Institute of Chicago. Several artists from the summer schools earned national and regional recognition, including Claes Oldenburg, LeRoy Neiman, Francis Chapin, Carl Hoerman, Alfred Krehbiel, John Norton, and William Greason. Illustrated with black-and-white and color reproductions of paintings of Saugatuck-Douglas and its surrounding landscape, "Painting the Town" also includes biographies of 90 artists known to have worked in the area since 1890. This book also explores the role of the artist as historian, since the paintings and sketches included have helped Saugatuck to define and memorialize its landscape and its past.

Archaeological Resources

In February of 1995, the Department of Anthropology at WMU examined a coffin with human skeletal remains from SDSP. The skeleton was found by a hiker at the end of the North Trail near Lake Michigan. The summary of findings stated that it was a white male approximately 5'3" and about 30 years old. The man is presumed to have been buried over 100 years ago with no manner of death determined at this time.



The Felt Mansion (photo above), listed on the National Register of Historic Places and the Michigan State Register of Historic Sites, retains the architectural beauty of a bygone era and offers a glimpse into the wealth and lifestyle of the Roaring 20s – a time cut short by The Great Depression. There may be archeological artifacts associated with this property, which is contained within the park. Laketown Township, which owns the structure and 40 acres around the estate, along with surrounding communities are restoring the mansion and grounds.

The St. Augustine Seminary, a Catholic prep school for young men, bought the mansion and grounds in 1949. Outgrowing the carriage house, which they used for classrooms and the mansion, which they used for housing, the Seminary built a school on the ridge west of the mansion. After moving into the school, in the mid 1960s, a group of cloistered nuns lived in the mansion. The grotto, pictured at right is still on the Felt grounds and is in fair condition.





The Carriage House is a brick building that sits on a concrete foundation and has a full basement. It is in the Craftsman style. The downstairs was used to house Dorr Felt's cars and carriages while the upper floor served as living space for the caretaker and offices for the farm. The original wood shingle roof has been replaced with an asphalt shingle roof. Excellent workmanship can be found throughout the building and a feeling of a grand country estate is still present at the site.

The interior retains much of its historic integrity, as does the exterior of the building. The long, narrow, metal frame addition was added to the building by the Department of Correction sometime after the state acquired the property. This structure was used as the warehouse for supplies being furnished to the state prison during the 1970's-1990's. Today, the building is used to store maintenance equipment and signage for the park.

The red barn (photo at right), near the Carriage House, may have been a schoolhouse at one time. The large wood frame barn sits on a concrete foundation and has square timber framing within. The barn appears to have been used as a hay barn and to stable horses. Several horse stalls are still present within the barn. Today, an asphalt shingle roof protects the structure. The building is used as a cold storage facility by the park.



In 2009, Laketown Township completed a proposal to expand the Felt Mansion & Shore Acres Farm with the following main items:

- Restore the Carriage House & existing barn
- Purchase and restore the greenhouse
- Construct a Farm market
- Clear & Prepare land and plant orchard and vineyard

Additional work within the grounds is proposed. The attendance, programming and revenue from the estate and farm is expected to grow considerably with these efforts.

A7. Education and Interpretation

Education / Interpretation / Visitor Services Resources

One interpretive panel display serves as the only educational resource in the park.

The Felt Mansion is open to the public for self-guided tours on most Sunday afternoons, May through October, from 2:00-5:00 p.m. Sunday tours are \$7 for adults and \$5 for students and seniors.



A8. Regional Recreational Resources

This section presents the recreational resources available at Saugatuck Dunes State Park as well as recreational facilities in the southwest region.

A8.1 Recreational Resources - Current Land Use within the Park

Picnic tables, permanent grills, vault toilets and a shelter building are the only amenities found in the park. SDSP has a 60-car parking lot and 13 miles of trails for hiking and cross-country skiing. No hunting, trapping, camping, snowmobiles, or horses are allowed in the park. The park is heavily used by people walking their dogs.

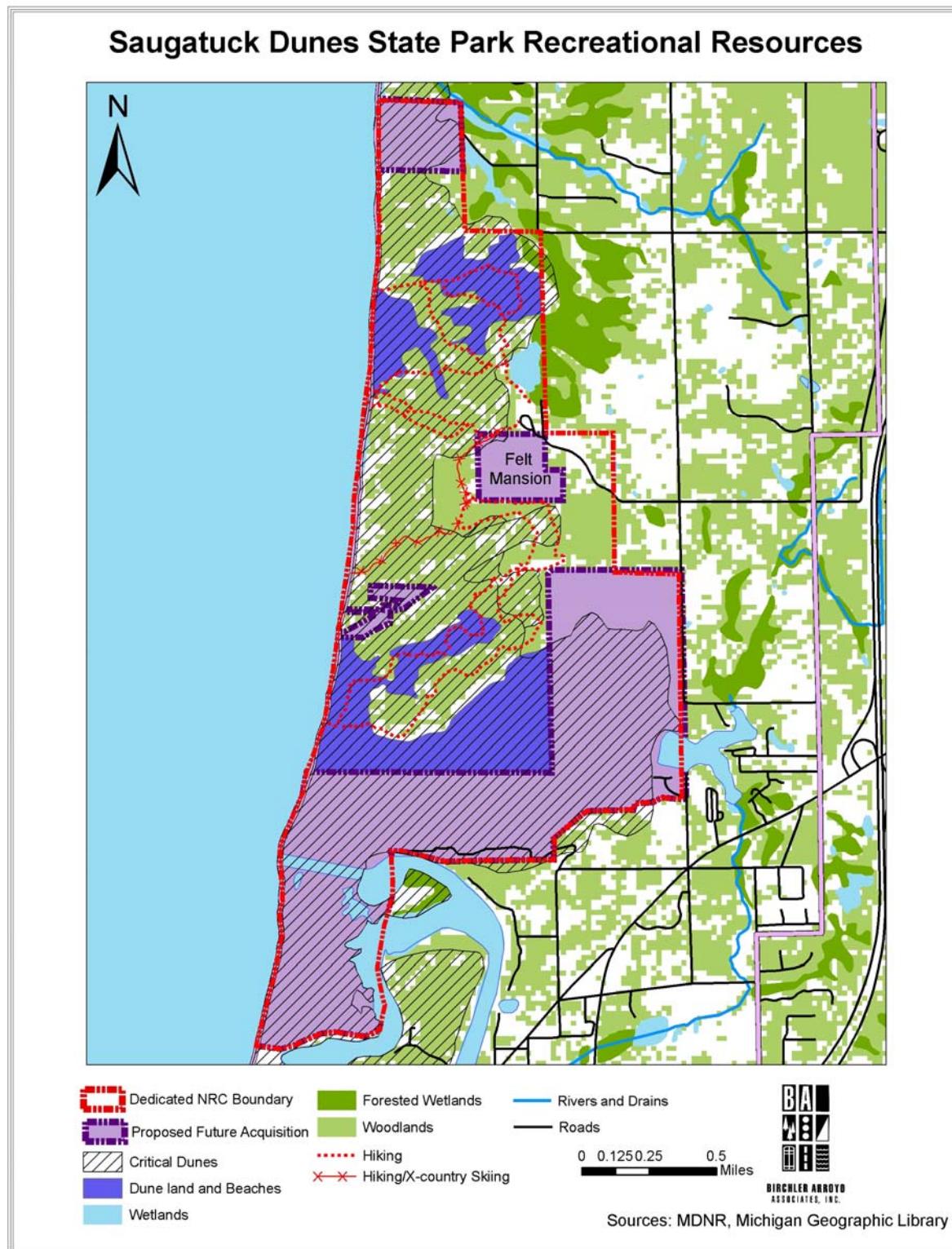


The Felt Mansion is available for holiday tours, private tours and rental of the ballroom. The building contains a library, open parlor, covered terrace, dining rooms, and a third floor grand ballroom. The surrounding gardens offer a magnificent backdrop with vistas of the Lake Michigan dunes and forests. It is the vision of the Township and volunteers to return the structure and grounds to their original splendor so the public can appreciate its beauty, while learning more about the local history, and the era when great effort was put to the task of building fine homes. The restoration is a unique community project, in some ways as impressive as the mansion itself, involving many individual, student, group, and corporate volunteers.

Areas of Conflict

The number one complaint at SDSP is about the dogs. Dog owners complain about not being allowed to let their dogs run loose and not being allowed to take dogs on the beach. Non-dog owners complain about dogs on the beach and dogs running loose. The lack of modern facilities (toilet / shower building) may negatively impact some day use. The moderately long unimproved hike to the beach deters some (elderly, disabled, etc.) day users from visiting the park, while others find that this type of access contributes to a positive experience.

Map 12: Park Resources



8.2 Regional Recreational Resources - State Parks

Holland State Park is approximately 5 miles north of Saugatuck Dunes State Park along Lake Michigan. This park offers an expansive, sandy beach along Lake Michigan, two large campgrounds and a beautiful view of sailboats and sunsets. The park is divided into two separate units; one along Lake Michigan and the other along Lake Macatawa.

Van Buren Trail State Park, about 24 miles from Saugatuck Dunes State Park, is a 15-acre linear park featuring a dirt or gravel surfaced multi-use trail that runs between Hartford and South Haven.

Van Buren State Park, about 31 miles from Saugatuck Dunes State Park, has one mile of sandy beach and high dune formations along the Lake Michigan shoreline. This 400-acre park offers camping, hunting, swimming and hiking.

8.3 Regional Recreational Resources - State Game Areas

Allegan State Game Area: Approximately 23 miles from Saugatuck Dunes State Park. Wonderful wildlife viewing opportunities abound in this 50,000-acre state game area. Allegan is a showcase for oak-pine barrens (also called oak-pine savanna)—a unique community of plants and animals adapted to life on the dry, sandy soils of this area. Allegan also features lowland hardwood and oak-pine forests, wetlands, ponds and open fields.

8.4 Regional Recreational Resources - State Forest Lands/Federal Lands:

There are no State forests or Federal lands in the nearby area of Saugatuck Dunes State Park.

8.5 Regional Recreational Resources - Local Parks in the area

Trails: There are plentiful opportunities for bicycling with trails that run in and around the area. A 20-mile trail connects Holland and Grand Haven on Lake Michigan. Another 15-mile trail circles Spring Lake in Grand Haven. In addition to bicycling, several cross-country ski trails can be found in the area.

Determination of existing recreational facilities and programs is an essential step in the recreation planning process. Regional facilities are illustrated on Map 15, *Regional Recreational Resources*, and summarized in Table 2. The following list describes the recreational resources near Saugatuck Dunes State Park that illustrate the available offerings in the region.

Boat Launches/Marinas: There is no boat launch at SDSP. A total of eight Boat Access Sites are located within 15 miles of SDSP. One is on Kalamazoo Lake in downtown Saugatuck. Four are located on the Kalamazoo River. Three more boat launches can be found on Lake Macatawa in Holland.

Seven harbors are within 50 miles of SDSP. Holland and Saugatuck are both harbors of refuge. These harbors can be used in the event of adverse weather. St. Joseph, South Haven, Grand Haven, Muskegon and Whitehall have municipal marinas that are operated by the local government.

Local Parks

Oval Beach –City of Saugatuck

Oval Beach and park on Lake Michigan in Saugatuck has been rated by Conde Nast's Traveler Magazine as one of the 25 best summer shorelines in the world. The wide, sandy Oval Beach of Saugatuck, has also been ranked by MTV as one of the top five most beautiful beaches in the United States.

Farview Nature Park – Laketown Township

Located on 138th Ave. in Holland, Farview Nature Park is comprised of over 80 acres, Farview Nature Park has 1 1/2 miles of scenic trails. With several distinct ecosystems, including pond wetlands, low dunes, deep woods, and open meadow, this park is rich in flora and fauna. The Laketown Equestrian Trails Association and the Laketown Parks Commission maintain horse trails through the park.

The Huyser Farm – Laketown Township

In the late 1930s, Manuel and Lilah Huyser purchased a 102-acre parcel at the corner of 142nd Avenue and 64th Street in Laketown Township. They drained the swamps, cleared the brush, straightened the creeks, and created an extensive irrigation system. Many buildings exist on the farm, largely constructed with wood harvested from the wood lots on the property. The Huyser home was built in 1939; its original plans still exist.

The Huyser Farm Sub-committee (part of the Parks Commission) has developed a long-term detailed strategic plan for the farm's preservation, development, and maintenance. It hopes that through this plan the Huyser Farm will become an educational and ecological center that will draw interest from the residents of Laketown, the general public, the schools, and visitors to the area.

Laketown Beach– Laketown Township

142nd Avenue in Holland (Laketown Township): Atop Mt. Baldhead is spectacular view of Lake Michigan. The 282-step stairway, leading up and over the dune, helps protect the fragile dune environment while affording visitors access to the lake.

Shore Acres Township Park – Laketown Township

Located at the end of 138th Avenue, adjacent to the SDSP, the Shore Acres Township Park (Laketown Township) features basketball courts and a soccer field. The BMX track sits on the top of the hill near the Felt Mansion.

Sanctuary Woods Preserve – Laketown Township

This park occupies approximately 40 acres in the northwestern corner of Laketown Township. This park was made possible with the assistance of a generous gift from the DenUyl family and a Natural Resources Trust Fund Grant. The development of the property was accomplished through the assistance of a Department of Natural Resources and Environment Coastal Zone Management Grant.

Wolters Woods– Laketown Township

Playground structures, horseshoes, nature trails, shuffleboard, a picnic pavilion, bird-watching and wildlife viewing are available in this 34 acre Laketown Township park.

Other recreation within the vicinity:

Attractions are located in the nearby Saugatuck community. There are a number of restaurants, shops, and art galleries located throughout the city of Saugatuck. Boaters and anglers can take advantage of the proximity of Lake Michigan's shoreline.

Saugatuck Dune Rides (privately owned and operated)

The dune rides date back to 1954 when Ron Jousma opened a dune ride similar to those at Silver Lake near Hart. He bought the present dunes property west of Goshorn Lake and turned his 1942 Ford convertible into a dune buggy with seats in the rumble seat. This privately owned dune operation bounds the State Park on the Southeast corner and one of their trails may be in trespass. The park is seeking to acquire this area.



Table 5: Summary of Regional Recreational Resources

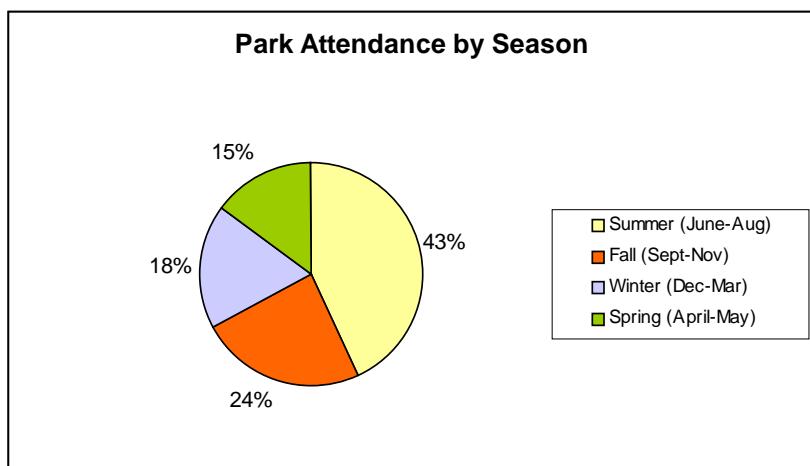
Recreational Resource	County	Municipality	Features																	
			Picnic Area	Hiking	Hunting/ Trapping	Biking	Play-ground	Equestrian	Swimming	Boat Launch	Snow Mobiling	XC Skiing	Concession/ Vending	Camping	Drinking Water	Rest Rooms	Showers	Sport Field/Ct	Fishing	
State Resources																				
Saugatuck Dunes State Park	Allegan	Laketown Township	X	X					X			X								X
Holland State Park	Ottawa	Lake Township	X	X			X		X			X		X	X	X	X	X		X
Van Buren Trail State Park	Van Buren	South Haven		X		X						X								
Van Buren State Park	Van Buren	South Haven	X	X	X		X		X											
Allegan State Game Area	Allegan	Allegan	X	X	X					X					X					X
County Resources																				
Bysterveld Park	Allegan		X				X										X			X
Dumont Lake Park	Allegan		X						X	X							X			X
Ely Lake Campground	Allegan			X					X	X		X		X						X
Gun Lake	Allegan		X				X		X	X							X			
Littlejohn Lake	Allegan		X	X			X		X								X			
Pine Point Park and Campground	Allegan			X					X			X		X		X				X
Silver Creek Park and Campground	Allegan		X					X								X				X
West Side Park	Allegan		X				X		X								X			
Municipal Resources																				
Farview Park	Allegan	Laketown Twp.		X				X												
Gilligan Lake	Allegan	Laketown Twp.									X									X
Goshorn Lake	Allegan	Laketown Twp.								X	X									X
Huyser Farm	Allegan	Laketown Twp.																		
Kelly Lake	Allegan	Laketown Twp.							X											X
Laketown Beach	Allegan	Laketown Twp.	X	X					X											
Sanctuary Woods	Allegan	Laketown Twp.	X	X																
Shore Acres	Allegan	Laketown Twp.		X		X			X										X	
Wolters Woods	Allegan	Laketown Twp.	X	X			X													
River Bluff Park	Allegan	Saugatuck Twp.	X																	
Sundown Park	Allegan	Saugatuck Twp.	X																	
Memorial Park	Allegan	Saugatuck Twp.	X																	
Tails & Trails Dog Park	Allegan	Saugatuck Twp.	X																	

Recreational Resource	County	Municipality	Features																	
			Picnic Area	Hiking	Hunting/ Trapping	Biking	Play-ground	Equestrian	Swimming	Boat Launch	Snow Mobiling	XC Skiing	Concession/ Vending	Camping	Drinking Water	Rest Rooms	Showers	Sport Field/Ct	Fishing	
Douglas Beach	Allegan	Village of Douglas	X						X						X					
Harold Beery Field	Allegan	Village of Douglas					X											X		
Howard Schultz Park	Allegan	Village of Douglas	X				X			X							X	X		
Union St. Launching Site	Allegan	Village of Douglas								X										
Wade's Bayou Memorial Park	Allegan	Village of Douglas	X																	
Veteran's Walk Park	Allegan	Village of Douglas																		
Tannery Creek Outlook	Allegan	Village of Douglas																		
The Village Square	Allegan	City of Saugatuck	X				X								X	X		X		
Frank Wicks Park	Allegan	City of Saugatuck	X													X			X	
Willow Park	Allegan	City of Saugatuck																		
Cook Park	Allegan	City of Saugatuck																		
Spear Street Boat Ramp	Allegan	City of Saugatuck								X										
Mt. Baldhead	Allegan	City of Saugatuck	X	X												X			X	
Oval Beach	Allegan	City of Saugatuck	X	X					X				X		X	X				
Coghlin Park	Allegan	City of Saugatuck	X																X	
Peterson Preserve	Allegan	City of Saugatuck																		
Interurban Trail	Allegan	City of Saugatuck		X																
Tallmadge Woods	Allegan	City of Saugatuck																		
Mize Rose Garden	Allegan	City of Saugatuck																		

A9. Park Use and Economic Impact

A9.1 Park Use

Saugatuck Dunes State Park is a day-use park along a 2.5 mile secluded strip of Lake Michigan shoreline. The park has fresh water coastal dunes that are over 200 feet tall with terrain that varies from steep slopes to rolling hills. This draw brings approximately 84,598 people annually (2007 data).



The highest use of the park is seen in July with over 12,000 visitors per month. In the fall, changing colors bring visitors to the park mainly during September and October. December through March marks a significant decline in park activity. Spring shows the least amount of visitors with attendance increasing as the weather warms.

A9.2 Economic Impact

To determine the park's economic value to the community, the Money Generation Model Version 2 (MGM2 Short Form) was applied. Dr. Dan Stynes of Michigan State University developed this economic analysis tool. The MGM2 Short Form is an update of the MGM model developed by Dr. Ken Hornback for the National Park System in 1995. The purpose of the model is to estimate the impact of park visitor spending on the local economy. These economic impacts are reflected in terms of sales, income, employment, and value added.

This MGM2 Model uses three factors for determining economic impact or tourism spending: *number of visits* multiplied by the *average spending per visitor* multiplied by a *multiplier*, which estimates the extended effects of direct spending. The formula produces a very basic analysis that is ideal for the non-economist and an excellent tool for obtaining a base-line assessment of the economic impacts of Saugatuck Dunes State Park.

Direct Economic Effects to the Community

The MGM2 Model results indicate that Saugatuck Dunes State Park is contributing to the local economy (based on 2007 data):

- Direct Spending attributable to Saugatuck Dunes State Park totaled \$900,000
- Jobs created totaled 28 (Note: jobs may include full-time, part-time and seasonal employment).
- Personal Income totaled \$306,000
- Value added (total income plus business taxes) totaled \$462,000

Total Economic Effects to the Community

Total economic effects reflect 'Direct Effects' plus the 'Secondary Effects' of visitor spending on the local economy. Secondary Effects (sometimes called 'Multiplier Effects') capture economic activity that results from the re-circulation of money spent by the park visitors in the community. Based on 2005 data, the estimated total economic effects for the area surrounding Saugatuck Dunes State Park are:

- Total Spending: \$1,190,000
- Jobs: 33
- Personal Income: \$403,000
- Value Added: \$641,000

Appendix B

Stakeholder & Public Input Workshop Results

Public Participation

The Department of Natural Resources and Environment Recreation Division (DNRE-RD) emphasized that comments on the general management plans would be accepted at any time during the process. The formal public participation program included an extensive public participation component in the general management plan process. The participation initiatives are summarized below, and the results are presented in this Appendix.

- February 12, 2009 Stakeholder Workshops:** The purpose of the two workshops was to obtain comments on the draft General Management Plans for 1) Holland State Park and Saugatuck Dunes State Park, and 2) Grand Mere State Park, Warren Dunes State Park and Warren Woods State Park. With assistance from the Planning Team, approximately 138 people and organizations were identified as stakeholders. Invitations to the Stakeholder Workshops were sent by email, mail and phone. Thirty-five people attended the two workshops. The sign-in sheet is included in this Appendix.

Stakeholders were invited to comment at the meeting. Stakeholders could also comment by completing a survey. The surveys were provided at the workshops and were also available on-line.

- April 29 & 30, 2009** Public Input workshops for Holland State Park and Saugatuck Dunes State Park. The above noted people were again contacted regarding the public input workshops by mail and email. Stakeholders and others were encouraged to share this information with interested members of the general public. Two sessions, one from 2:30 – 5:00 p.m. and the second from 6:30 – 9:00 p.m., provided opportunities for the public to attend, learn about the process and comment on the draft plans. Approximately 20 people attended the two sessions.

There were three opportunities to provide comments:

- 1) Comment at the workshop.
- 2) A hard-copy survey available at the workshop
- 3) The survey was available online

**Comments provided in response to February 12, 2009 Stakeholder Workshop
(Saugatuck Dunes State Park)**

Saugatuck Dunes State Park

- Concern about leaving Saugatuck Dunes State Park lakeshore access in "rugged" state versus being accessible to all. Could universal access be achieved in an environmentally sensitive way? (Past plans have illustrated sensitive routes and "surfaces")
- 1,000 members and 65 organizations involved with Concerned Citizens for Saugatuck Dunes State Park; group wants to keep the park "wild."
- There was overall concurrence to expand the "Natural Area" designation

**Comments provided in response to April 29, 2009 Public Input Workshop
(Saugatuck Dunes State Park)**

- Why not designate the draft Primitive Zone as Ecologically Sensitive?
- Has State looked at ways to incorporate the dune ride?
- Dennison Property – support purchase and suggests consideration for another campground.
- S.D. Coastal Alliance has applied for an Environmental Area designation on Dennison land – would like state to support.
- A water supply / treatment plant within the park seems out-of-character and incompatible.
- Need to educate the public about fact that user fees support park system.
- Future of SDSP could be adversely impacted by development surrounding it.
- Natural Areas need a protective buffer zone around them.
- Should have not combined SDSP and HSP meetings – why are we meeting in Zeeland?
- Southern ½ of Developed Rec Zone should be Natural Area.
- Natural Area west of Mansion is not supposed to be used exclusively for park purposes.
- Would like Laketown Twp to be highlighted.
- SDSP should be made reasonably accessible to everyone.
- Original park plan proposed an active recreation area NW of Felt Mansion.
- Mansion belongs to Laketown Twp.
- Developed Rec. Zone should be a Natural Resource Rec. Zone.
- Southern 40 acre of DR Zone too rugged / hilly for active campground.
- Township has plans for Shore Acres Living History Farm as educational & rental resource (to support operation). Would like to partner with DNRE to restore alternative energy.
- Would like to see Natural Area expand further north in Primitive Zone.
- Giving consideration to a water treatment facility (appendix C) seems out-of-character with Natural Area and natural resource (Consider water conservation efforts instead)
- Water intake could be directional bored, pumps on site, filtration plant a mile or more away.

- Directional bore adds millions to cost that could be invested in park development instead.
- Should see a real need for more water and exhaust conservation options before developing a new water intake and its potential for ecological damage (Seattle as our model).
- Water in Allegan County would bring industry / jobs.
- Use of “quad” by management staff is widening & damaging trail.
- Plan does not mention Prairie Warbler (will check)
- Representative of Congressman Hoekstra will pass along comments regarding importance of adding Dennison property.
- As SDSP adds more users, it will need to be expanded to maintain low density of visitors.
- The resources make SDSP an amazing outdoor educational resource.
- Acquisition of “North Dennison” would provide improved access via existing road network (to assist users with mobility limits).

Survey responses:

- Statements of Purpose**
 - Preserve and restore, where needed, the park’s scenic viewsheds, particularly as inholdings and adjacent properties are developed.
- Statements of Significance**
 - While cultural resources are important, the ecological needs of the park should be a higher priority
- What natural resources are important?**
 - Lake, dunes, wetlands
 - Silence, darkness, trees, undisturbed nature experience, preservation of all wildlife, shoreline
- What cultural resources are important?**
 - Felt’s energy model
 - Felt Mansion; artistic and scenic overlooks
- What are the education and interpretation?**
 - Habitat corridor information
 - flora, fauna, dune geology, Native American connections
- What are the recreational opportunities?**
 - Cross-country skiing, hiking, primitive camping—not modern camping, swimming
 - Hiking, swimming, cross-country skiing, snowshoeing
- What should be the visitor experience?**
 - Sensitive environmental area
 - individual exploration with natural world; solitude, contemplative, educational

User Conflicts/Issues

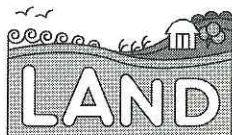
- Excessive trail markers
- Creation of user-defined trails may becoming too obtrusive into the pristine areas
- Patrolling on foot does less damage than the quad
- There should be a clear awareness (through signage) that visitors are entering the park and that the park relies on user fees
- Water withdrawal; if Holland requests water pumping station, they should demonstrate need and conservation. Should not be in business of selling the natural resource.
- Occasional dog-owner issues, “partying,” suggestions for commercial ventures in park should be precluded.

Identity for Saugatuck Dunes State Park

- This park should be considered beginning of a Regional Wilderness (at least 2,500 acres of public land where evidence of human settlement is minimal and which is managed to preserve wilderness values) that could be accomplished via acquisition of the former Denison property.
- Unique park for Michigan—a living classroom for what is possible with restoration and good stewardship
- The identity for this park should be as a very natural primitive or ecologically sensitive zone
- Wild pristine area
- The beautiful, inspiring, contemplative retreat on Lake Michigan.

Other comments

- The fleeting human uses of the park land (Dorr Felt, seminary, etc.) can be commemorated in the Felt Mansion and on the grounds east of it, and should be, but only in a way that does not imperil the wild nature of the park now and in the future.
- Consider monitoring deer damage as done at Hoffmaster SP.
- Thank you for facilitating this process. Hold fast to the identity of this precious resource! Don't let the possibility of a water treatment plant creep in. And don't let the trappings of civilization move it.
- Would not like to see State trade water access for property acquisition
- Educational, interpretation opportunities should exist for arts exposure
- Environmental area designation should be supported for all adjacent lands.



Laketown Alliance for Neighborly Development

P.O.Box 244, Saugatuck , Michigan 49453-0244

April 29, 2009

Dear State Park Decisionmakers:

The Saugatuck Dunes State Park is an important community asset which contributes directly to the quality of life of our lakeshore community. The Laketown Alliance for Neighborly Development supports your intentions to maintain the quiet, natural character of this park which has proven so beneficial to our local tourist economy as well as our year-round citizenry. The presence of this stunning lakeshore open space enhances our region immeasurably.

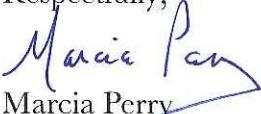
The Draft General Management Plan is primarily consistent with the aims of the State (and our membership), but the mention of accommodating the future water needs of the City of Holland seems untenable. A small rustic State Park is not an appropriate place in which to consider a municipal water withdrawal enterprise which could compromise the park's environmental integrity.

We would welcome expansion of the Saugatuck Dunes State Park as a means of further protecting the park's resources which have thus far served the public so well. There is no buffer zone for the current Natural Area which puts that area in unnecessary jeopardy from more-intensive land uses to the south. It would be a good idea to remedy this omission and to include adequate buffering for all additional Natural Areas. This park's position along the busy shoreline migratory flyway underscores the necessity for maintaining as much undisturbed natural area here as possible.

Another suggestion related to the cultural advantages of Saugatuck Dunes State Park would be the institution of an Artist's Residency program to further engage and educate the public about this inspiring landscape.

We fully support the vision for maintaining the Saugatuck Dunes State Park as a "Primitive Area" which distinguishes it from other high-impact parks nearby and respects its rare and fragile features.

Respectfully,


Marcia Perry

President, Laketown Alliance for Neighborly Development

Our organization, LAND, is a group of citizens committed to keeping our beautiful lakeshore environment a uniquely wonderful place to live, work and visit. We value the natural and rural open spaces, quiet charm, historic character and interesting locally-owned businesses, which attract tourists and residents alike.

Saugatuck dunes state park

29 April 2009

My name is Tracey Shafrroth and I have been a property owner in Saugatuck for the last 20 years and a visitor to the region and the park for the last 30 years.

As everyone in this room knows the Saugatuck Dunes State Park is a remarkable and unique asset in this region. When I first stumbled upon the park many years ago I experienced what most people experience- a complete sense of awe at this jewel in our midst. It was quiet and had been left alone and I then shared that sense of awe with my two children who traipsed up and down the dunes, collecting sea glass, drift wood and empty birds eggs. They learned about the region by being in the dunes and experiencing the quiet and still of the park. To this day they connect to nature in ways that were influenced by those early treks through the park.

The low impact nature of this park, the absence of lighting, toilets, paved paths and the stuff of civilization makes it a special place. The park is about what nature created and not about where civilization can insert itself.

I am here to urge you today to not only preserve this jewel in our midst as it is but to look ahead toward expanding it. It is unusual in this day and age to have a park of this size with its varied resources in such close proximity to another parcel of staggeringly beautiful and ecologically diverse open space. I am speaking about a parcel that is commonly known as the North Denison. The concept of linking significant chunks of open space is well known as a way to increase and protect biodiversity, bolster the stability of critical dunes and to ensure that wildlife has sufficient acreage to migrate through out the year.

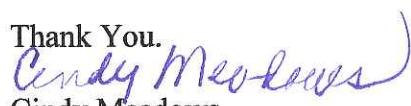
I urge you today to keep this park as one that is low impact in nature, without overnight camping , the requisite toilets, ambient lighting and pathways etc. And at the same time to work hard to try and acquire the north Denison in the near future to add to this remarkable asset.

1015 PARK STREET
SAUGATUCK, MI 49453

April 29, 2009

Department of Natural Resources
State of Michigan

A water treatment plant is not harmonious with the natural footprint or the natural open spaces at Saugatuck Dunes Park. That it is non motorized or Equestrian Park enhances its attraction and beauty. I have hiked this park for 11 years and am a firm believer in leaving as the sign says only foot prints. This exceptional gem is an important part of the economy in this area. We must protect this park and its rare open spaces from urbanization.

Thank You.

Cindy Meadows
(269) 857-2178
cindymeadows5@msn.com

Appendix C

Planning Team Meeting Summaries

A G E N D A

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
RECREATION DIVISION
Holland State Park/Saugatuck Dunes State Park
General Management Plans and Regional Assessment Project

DATE: July 23, 2008
TIME: 1:15 - 4:30 pm
PLACE: Park Township
52 152nd St., Holland, MI

1. Introductions
2. Project Overview
3. Exercise
 - Your interests
 - First impressions of each park's significance
 - First impressions of each park's purpose
4. Summary: What was heard
 - Summary Report to be emailed - please provide your email address on the sign-in sheet.
5. Planning Team Meeting Schedule
6. Local Citizens Advisory Committee

Meeting Minutes

1. Project Overview

- Paul Curtis, DNRE-RD Management Plan Administrator, began the meeting by providing an overview of the General Management Plan process.

2. Exercise:

- Birchler Arroyo Associates led an issues / solutions exercise. A brief description of each park was given, after which participants were asked to identify issues and solutions, as well as the significance and purpose of Saugatuck Dunes and Holland State Parks. This meeting followed a tour of both parks, which took place earlier in the day.

A. Saugatuck Dunes State Park

- Issues/Opportunities
- Mapped boundaries
- Needs utilities, parking
- Resolve land exchange issues (in favor of the State)
- Resolve land acquisition issues south & east
- Explore resolution / solutions with private owners
- Work with private owner on trespass issues resolution
- Character: most passive on Michigan's west coast
- Low use but profitable
- Non-natives removal not an operating cost – considered improvement
- Natural Area management should be part of park budget
- In-holdings / relations
- Access road goes through sensitive area
- Saugatuck has revenue potential
- High-activity RV-type camping with utilities may or may not be appropriate at this park
- Maybe more rustic camping
- Is more control possible with cabins
- What is the user capacity consistent with resource preservation and restoration
- Users come to Saugatuck Dunes because of the long, difficult walk to shore.
- Natural Area boundary was drawn based on original ownership not ecological resource
- Interaction between Department / Holland / Laketown Township
- Potential for negotiation on Dennison property – density for resource protection, including fisheries interests
- Army Corp. dredging may threaten the resource
- Popular Spring/Summer for school nature trips – no staffing available
- White Tail population too high (over browsing) – no hunting allowed
- Open hunting would create problems with neighbors
- Develop “exclosure” to demonstrate amount of damage from deer
- Plant poaching – unknown what scale might be

- Herbal remedies drive poaching
- Orchids are poached for commercial use
- Commercial dune ride – opportunity to develop educational partnership
- NRC boundary recommendation includes Dennison
- Stewards of the Future – should Trust Fund monies be re-directed?
- Marketing potential related to the unique natural features
- Can we do sustainable improvements like the Felt Mansion approach?
- Development should utilize Township Park, not fragile area
- Protect Felt Mansion viewshed
- Joint educational opportunities with future Felt Mansion improvements
- Local economic enhancement may be an issue
- MNFI had suggestions in their report.

B. Holland State Park

- Issues/Opportunities
- Cash cow – need bigger budget for improvements
- More investment in improvements and maintenance might increase the positive return to State system
- Shuttle service from downtown Holland & county bike path bring users
- Parking shortage results in users voluntarily paying parking fines to gain access
- Coordinate with Ottawa County Parks Plan
- Potential for pitchers thistle
- Army Corp pier accessed through park – problems are jurisdictional
- Fishermen frequently request additional launch facilities (there are 3-4 other agencies' access sites)
- Fishermen add \$2.5 million to local economy
- Former Lake Mac boat access could become a barrier-free viewing, parking, fishing site
- Park personnel have to treat injuries on Corp's pier but have no authority to prevent unsafe activity.
- Many near-drownings from rip currents in posted no swim areas
- Some trespass issues between park/county/neighbors
- No playground equipment to meet demand
- Traffic / traffic pattern that results from dead-end –exacerbated by parking shortage
- RV campers “pre-staging” take multiple spaces (only 5 designated spaces)
- Access fees for different vehicle types don't reflect true “value” of their parking spot
- Electronic advisory sign at 168th for full parking lot

3. Attendance: Members of the Management Planning Team for Saugatuck Dunes and Holland State Parks:

Paul Yauk, RD Lands Program Mgr
 Joe Strach, District Planner
 Jeff Johnson, Student Assistant

Ray Fahlsing, RD Stewardship Unit Mgr
Roland Johnson, RD Plainwell District Manager
Jill Bahm, Birchler Arroyo Associates, Inc
David Birchler, Birchler Arroyo Associates, Inc
Rob Corbett, OLAF, lands
Kregg Smith, Fisheries Mgmt Biologist
Tom Hoane, FMD, Mineral Geologist
Mark MacKay, WLD DNRE Planner
David Price, FMD, Planning
Joyce Rhodes, Supervisor Holland St. Park
Kurt Maxwell, Saugatuck Dunes St. Park
Paul Curtis, RD Park Mgt. Plan Admin.

A G E N D A

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT RECREATION DIVISION

Holland State Park – Saugatuck Dunes State Park
General Management Plans – Planning Team Meeting #2

DATE: September 30, 2008
TIME: 9:30 a.m. – 12:30 pm
PLACE: Park Township Hall (52 152nd St. Holland)

1. Brief Review of Background Analysis for HSP/SDSP
2. Discussion of Core Values & Preliminary Identification of Management Zones
 - Holland State Park
 - Saugatuck Dunes State Park
3. Group Reports to Planning Team

Results from group exercise to be compiled into GMP statements of purpose and significance and will be distributed after meeting.

MEETING SUMMARY

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT RECREATION DIVISION

Holland State Park – Saugatuck Dunes State Park
General Management Plans – Planning Team Meeting #2

DATE: September 30, 2008

TIME: 9:30 am – 12:30 pm

PLACE: Park Township Hall (52 152nd St., Holland)

Attendees: David Price, Rob Corbett, Paul Curtis, Joe Strach, Jeff Johnson, Paul Yauk, Carol Skillings, Janet Canode, Joyce Rhodes, Kurt Maxwell, Ray Fahlsing, David Birchler, Jill Bahm

1. Brief Review of Background Analysis for HSP & SDSP

David Birchler summarized the background analysis to date. Paul Yauk noted parcels adjacent to SDSP that are available or may be available in the near future. David Price asked for the Natural Area boundary to be included on all park maps.

2. Discussion of Core Values & Preliminary Identification of Management Zones

Attendees were divided into two groups and discussed each of the two parks. Their ideas and observations resulted in the suggestion of specific management zones for the parks.

3. Group Reports to Planning Team

Holland State Park

- HSP is one of the first state parks providing a great opportunity to access the shoreline of Lake Michigan.
- The groups agreed that the critical dune area should be marked as Primitive to protect the dunes, while still allowing low-impact use
- With the high use of the two campgrounds at this park, those areas should be marked as Developed Recreation to encourage future visitor enhancements
- The shoreline of the park offers a unique opportunity for enjoying views of Lake Michigan, including spectacular sunsets, and should be identified as a Scenic Zone. Additional Scenic zone overlays should be noted at Mt. Pisgah, as it is a high point.
- The park office is well-situated within the park and should be classified as Visitor Services
- The Lake Macatawa beach is less developed than the Lake Michigan beach, and is restricted by the number of parking spaces. With its more moderate use, it should be labeled Natural Resource Recreation

Saugatuck Dunes State Park

- SDSP is a rustic, undeveloped day-use park with considerable shoreline access to Lake Michigan
- With the majority of the park land identified as a critical dune area and natural area, the sandy soils and interdunal wetland communities found within the park, the bulk of the property should be identified as Primitive
- The Felt Mansion property is an area that is more appropriate for development. It has significant history for the area, including a history of environmental stewardship. The groups were not settled on whether the classification in this area should be either Developed Recreation or Natural Resource Recreation. In addition, a Cultural Overlay zone may be appropriate in this area
- Future consideration will need to be given to the Holland community's water needs, how this can be accommodated within the framework of the management zones and stewardship of the resources, and the possibilities for park expansion that could result from a partnership

Wrap Up: The management zone maps will be drafted based on the comments from today's meeting. At the next planning team meeting, the zones will be reviewed along with statements of Core Values for the parks.

A G E N D A

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT RECREATION DIVISION

Grand Mere State Park – Warren Dunes State Park

Warren Woods State Park

General Management Plans – Planning Team Meeting #3

DATE: December 11, 2008

TIME: 9:00 a.m. – 12:00 pm

PLACE: Plainwell Operations Center

621 N. 10th Street , Plainwell, MI 49080

Lunch will be available at noon with Holland & Saugatuck staff

1. Review & Finalize the Management Zones for each park

Please review the attached map composites prepared from your comments at the September Team Meeting

2. Discussion of Statements of Purpose and Significance for each park

Please review the first few pages of the attached draft chapter

3. Identification of Key Stakeholders

Please bring names and contact information of those you would recommend and help us brainstorm other that should be invited into the management planning process

4. Review of Warren Woods – Paul Curtis

Meeting Summary

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT RECREATION DIVISION

Holland State Park – Saugatuck Dunes State Park

General Management Plans – Planning Team Meeting #3

DATE: December 11, 2008

TIME: 9:00 – 12:00 pm

PLACE: Plainwell Operations Center

621 N. 10th Street, Plainwell, MI 49080

In attendance: David Price (FMD), Jeff Johnson (RD), Carol Skillings (RD), Janet Canode (OMET), Kurt Maxwell (RD-SDSP), Kim Dufresne (FMD), Kayla Krajniak (student), Glenn Palmgren (RD), Mark MacKay (WLD), Joyce Rhodes (RD-HSP), Paul Curtis (RD), Jill Bahm, David Birchler

1. Review & Finalize the Management Zones for each park

Comments from the team

Holland State Park:

- Joyce Rhodes indicated that fishing pier and small shelters proposed for the area of the park identified currently as Natural Resource Recreation Zone is compatible. Outside of the developed features, reestablishment of natural communities should be encouraged where they can be enjoyed & interpreted by users from the viewing locations.
- It was noted that many people would like to put kayaks and small canoes in at the northeast area of the park along Lake Macatawa. This information will be included within the text of the plan along with a note that “where this activity does not occur, the property will be allowed to revert to a more natural state, especially along the shoreline.”
- Joyce expressed a need for additional parking, especially to support park activities along Lake Macatawa shore; the team discussed designating a Developed Recreation Zone behind the former residence between Second and Third Street, allowing cars to enter from Third Street. This will present a challenge because park staff will have to monitor another access point. The vacant residence could be reused as a nature center, camp center, or museum for campers/visitors. All areas now shown as Visitor Services should be marked Developed Recreation if not currently used for administrative purposes.
- It was decided that the property on which the hot dog restaurant is located be designated as future park property, should it become available
- It was noted that the boundary map included in the Core Values section needs to be updated for current ownership and topography.
- A change is needed to the leases section for Lake Macatawa Beach to note that the snack services leases and maintains concession. Also, the boardwalk has been built by Ottawa County and should be so noted in the report.

Saugatuck Dunes State Park:

- The team recommends the expansion of the dedicated natural area to include the mesic southern forest, open dune and interdunal wetlands area; except private property. Text will highlight that maintenance of existing trails by park staff is permitted.
- It was decided to note all inholdings as future park expansion
- The team discussed the primitive and ecologically sensitive zones and decided to use the primitive zone designation for the bulk of the park area
- Paul Curtis will clarify additional future expansion with Paul Yauk
- The text will include a note that the adjacent dune ride attraction adds a type of interpretation of which visitor to the park can take advantage
- Kurt raised the issue of people asking for easier access to the lake. The team reached consensus that easy access to the lakeshore should be provided within a region, but not necessarily at each park. For this park, part of its significance is the rugged and remote terrain.
- The team stressed the importance of clear signage within the park and at trailheads. Text in the plan should discuss the great opportunity for interpretive signage that could highlight significant natural features found at this park.
- SDS staff will be constructing emergency vehicle turn-outs on inholdings access road; R-O-W should be excluded from Natural Area.

2. Discussion of Statements of Purpose and Significance for each park

- Holland State Park: The statements will be revised to include comments from the team: Holland State Park has 1 mile of shoreline; the planted pine area will also be added to the statement of park significance.
- Saugatuck Dunes State Park: Some wording will be changed to highlight the opportunities for year-round recreation, education and enjoyment of the natural setting found within the park. Access to beach requires effort on part of users, while other nearby facilities have easier access. Wording on the Felt example of environmental stewardship will be clarified. Information will be added on the three elements that occur within the park: open dunes, mesic southern forest, and interdunal wetland. Add separate statement for the Natural Area. Best example of open dunes in Southern Lower Peninsula. Add discussion about specific expansion areas designed to protect the critical dune.

3. Identification of Key Stakeholders

- The team brainstormed a list of stakeholders for both parks; additional research into contacts will be completed by the team.

Recommendations to Approve

- | | |
|---------------------|--|
| ■ November 30, 2009 | RD Section Chiefs |
| ■ December 9, 2009 | Citizen's Committee for Michigan State Parks |
| ■ December 15, 2009 | Southern Lower Peninsula – Ecoteam |
| ■ December 15, 2009 | RD Management Team |
| ■ February 2, 2010 | Statewide Council |