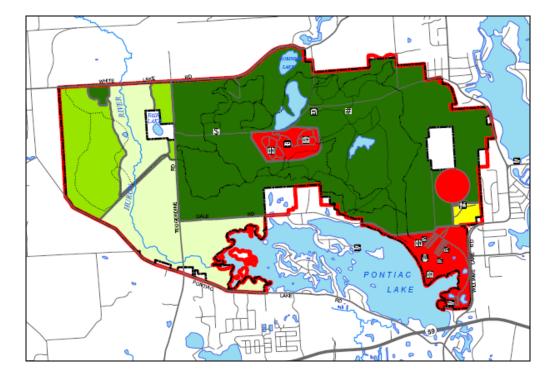
# **GENERAL MANAGEMENT PLAN**

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



### PONTIAC LAKE RECREATION AREA

Prepared by: Paul N. Curtis, Park Management Plan Administrator Kristen Bennett, District Planner John Bugg, Planning Assistant Carol Skillings, Planning Assistant Brittany Blankenship, Intern

PLAN APPROVALS:

Chief, Recreation Division

Deputy Director, Natural Resources

Director, Michigan Department of Natural Resources

Date

<u>3 [4]2.01 2</u> Date **3/19/12** 

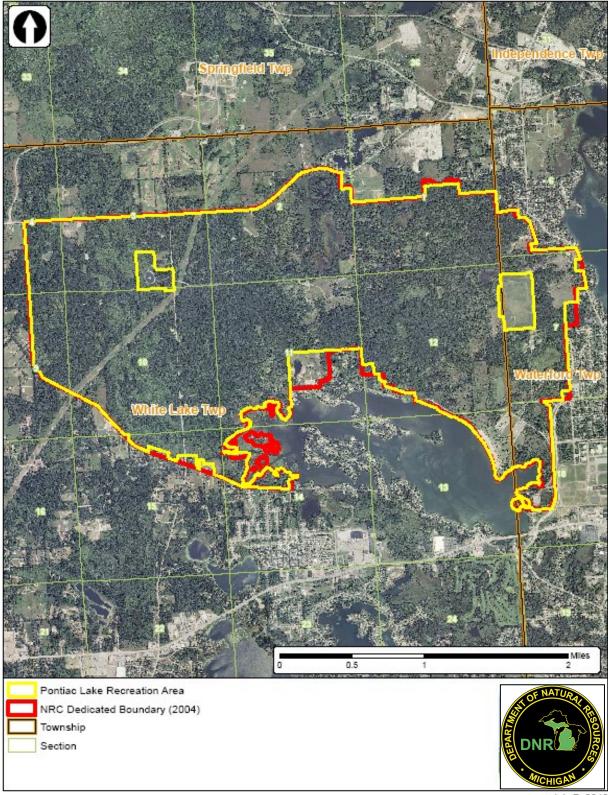
Date





Pontiac Lake Recreation Area 
General Management Plan

#### **AERIAL VIEW**



July 7, 2010

### **RESOLUTION NO. 02-2012-04**

#### MICHIGAN STATE PARKS ADVISORY COMMITTEE (MSPAC)

#### **RESOLUTION TO RECOMMEND APPROVAL OF THE** "PONTIAC LAKE RECREATION AREA – PHASE 1 - GENERAL MANAGEMENT PLAN"

#### ADOPTED: FEBRUARY 9, 2012

**WHEREAS**, the Department of Natural Resources' (DNR) Parks and Recreation Division has completed Phase 1 of the General Management Plan for Pontiac Lake Recreation Area; 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 Pontiac Lake Recreation Area; and

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

**THEREFORE, BE IT RESOLVED**, that the Michigan State Parks Advisory Committee recommends approval of the Pontiac Lake Recreation Area – Phase 1 - General Management Plan; and

**THERFORE, BE IT FURTHER RESOLVED**, that the Michigan State Parks Advisory Committee further recommends that the DNR Director approve the Phase 1 – General Management Plan for Pontiac Lake Recreation Area; and

**THEREFORE, BE IT FURTHER RESOLVED**, that upon the DNR Director's approval, the Parks and Recreation Division initiate the Phase 2 – Long Range Action Goals Plan for Pontiac Lake Recreation Area.

Submitted by: Chris Graham, Chair, MSPAC Operations and Stewardship Subcommittee

Motioned by:	Chris Graham	Yeas:	9
Seconded by:	Todd Scott	Nays:	0
		Abstained:	0
		Absent:	7

*This Resolution was adopted by the Michigan State Parks Advisory Committee at their February 9, 2012, meeting as Resolution No. 02-2012-04.* 

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Annual Action Plan and Progress Report	INSERT)
Operational / Management Resources	NSERT)
Annual Work Plan Staffing and Budget Equipment inventory and needs Training (required and desired) Public relations / marketing / outreach Programming (special events, MMETDC activities, volunteers, etc Public health, safety and welfare - Wildfire Management Plan - Emergency Access Plan - Health Department Reports CRS FOIA Infrastructure Inventory	c.)

Raster Image Index Raster Images Stewardship Plan Other...

#### 

#### Park Setting

- Location and surrounding community
- General history of park
- Land ownership and issues
- Relationship to other park resources
- Current land use
- Natural Resources
- Ecoregional context
- Water resources
- Climate
- Geology and topography
- Soils
- Flora
- Fauna
- Historic / Cultural Resources
- Physical environment
- Cultural environment
- Archaeological resources
- Buildings and structures
- Historic landscape
- Education / Interpretation / Visitor Services Resources
- LAPS 'Kids in Park'
- Interpretive programming, displays, and signage
- Volunteer programs
- Recreational Resources
- Developed opportunities
- Undeveloped potential
- Areas of conflict
- Park Use Statistics and Economic Impacts
- 2005 Use Figures
- 2004 Economic Impact Analysis
- Stakeholder Input
- DNRE programs
- Other state agencies
- Federal programs
- Local agency programs
- Private sector (business)
- Sporting clubs
- Special interests
- Public

#### 

pendix
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- Reports
- Meetings

# EXECUTIVE SUMMARY

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

- <u>Goal 1, Objective 1.2</u>: "Strengthen, update and implement Management Plans."
- <u>Goal 3, Objective 3.1</u>: "Perform landscape level assessment of recreation opportunities in decision making."
- <u>Goal 8, Objective 8.1</u>: "Continue to use the CCMSP (Citizen's Committee for Michigan State Parks), MSWC (Michigan State Waterways Commission), NRC (Natural Resources Commission), SWC (Statewide Council), and Ecoregion Teams and partners to advise in PRD planning, policy development, and issue resolution.

Pontiac Lake RA lies in the northwest section of Oakland County in Southeast Michigan. Though the recreation area lies in close proximity to several large, urbanized regions (30 miles North of Detroit, 40 miles South of Flint, 10 miles West of Pontiac, 50 miles East of Lansing), its boundaries contain significant natural resources

Long-range planning for Pontiac Lake RA began in December of 2005 as one of many parks statewide where a new planning philosophy was implemented. 'Management Planning', a comprehensive, resource-based process, is the Parks and Recreation Division's (PRD) adaptation of the National Park Service's planning methodology. In this process, attention is focused on the four principles of the PRD Mission Statement. To that end, the Management Team thoroughly inventories the park's (1) natural resource values, its (2) historic/cultural resources, identifies the (3) recreational opportunities, and develops the (4) educational and interpretation opportunities.

With this knowledge base and the input of the 'Planning Team' (consisting of Department resource staff, stakeholders, and public), an 'identity' was established for the park. The components that make Pontiac Lake RA unique are threefold: it boasts unique topography due to the recession of the glaciers, it contains a section of the Huron River, and lies near the headwaters of Clinton, Huron and Shiawassee Rivers, and it possesses a very broad range of vegetation.

The Management Zone Plan is found on page 19, and a thorough review of all five zones accompanies that graphic. A condensed review of all the zones applied at Pontiac Lake RA is as follows: (Note: acreages provided are approximate)

<u>Primitive Zone</u>: The Primitive zone is characterized by open sand dune, and represents 645 acres (19%). This zone is natural in character, and managed only to allow dispersed and low-frequency use for low-impact recreational purposes,

such as foot traffic. Within this zone lies the Huron River corridor and its associated wetlands, protection and management of which are primary concerns within this zone.

<u>Backcountry Zone:</u> The Backcountry zone, approximately 11% (380 acres) of Pontiac Lake RA, is characterized by lowland hardwood forest and limited amount of wetlands. Activities in this zone will be limited to low-impact, such as hiking and equestrian use, hunting, fishing and other dispersed-use activities. Protection and management of the zones forested areas will be primary goals.

<u>Natural Resources Recreation Zone:</u> Totaling over 2000 acres (61%), this zone includes rolling wooded terrain, wetland areas and some seasonal ponds. More active recreation, with medium- to high-density use takes place here, with hunting and trails for hiking, mountain biking, and equestrian uses. There remains an emphasis on resource quality over recreation, but higher levels of recreational use are allowed.

<u>Developed Recreation Zone:</u> This 277 acre zone (8%) is prescribed in two primary locations. The largest part of this zone is located on Pontiac Lake, and offers dayuse activities, including a boat launch facility. In this same general area (north of the park headquarters) is a modern shooting range, which is also included in this zone. The second part of this zone is in the center portion of the park, serving as the Modern Campground. This zone features active recreation with higherdensity use than in the Natural Resources Recreation Zone, especially in areas not designated for natural resource significance.

<u>Visitor Services Zone:</u> This 31 acre zone (less than 1%) is located off of Gale Road. This zone encompasses the developed areas required for park administration and operations. Currently, the visitor service area (Park Headquarters and Shop) is located at the south end of the park on State Park Road; however, this plan recommends relocation of those functions to a more central location.



# INTRODUCTION

**Planning Process Overview** – The Management Planning Process develops a series of planning steps, each built upon the previous, that keep all planning and action decisions focused on (1) the mission of the Parks and Recreation Division, and (2) the specific Purpose and Significance of the park.

There are four stages of planning, implemented in the following order:

- General Management Plan (GMP) 20-year long-range goals
- 10-Year Action Plan long range action goals to attain the GMP
- 5-Year Action Plan specific actions to implement
- Annual Action Plan and Progress Report what will be done this year and what progress was made on last year's plan

This is the **General Management Plan**, the first step in our planning process. In this stage of planning, we are defining what the park will look like in twenty years. What will be the condition of flora and fauna? How will we address historic and cultural resources? What recreational opportunities will 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?

A key tool of this plan is the identification of "Management Zones" which define specific characteristics of the land, addressing management for:

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

These four elements represent the primary elements of the PRD Mission Statement, and provide the primary guidance for both planning and management decisions. Within the parameters of this guidance, "Purpose" and "Significance" statements are developed for the park that establishes its unique identity and focus. No two parks are the same and this emphasis is directed at ensuring that the differences found from park to park are acknowledged, highlighted and celebrated.

**Planning Objectives** - The objective of this General Management Plan is to bring together Department staff, impacted and impacting stakeholders, and the public who use the park in a planning process that will define and clarify the unique "Purpose" and "Significance" of the Pontiac Lake Recreation Area. Collectively, we will reinforce those attributes 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.

## PLANNING TEAM

Accomplishment of our planning objectives was and is dependent upon the valuable input provided by all members of the 'Planning Team'. Following are the names of those critical participants in this planning process:

#### <u>Name</u>

#### **Representing**

Karis FloydPRDHoward RocheleauPRDJulie OakesWLD (Wildlife Division)Tim PayneWLDJeff BraunsheidelFD (Fisheries Division)Bruce MillerFMD (Forest Management Division)Larry PedersenFMDThomas HoaneFMDTom WellmanFMDAiden McLearonLED (Law Enforcement Division)Karen GourlayMOD (Marketing and Outreach Division)Denise GrubenOLAF (Office of Land and Facilities)Ed MeadowsOLAF	Howard Rocheleau Julie Oakes Tim Payne Jeff Braunsheidel Bruce Miller Larry Pedersen Thomas Hoane Tom Wellman Aiden McLearon Karen Gourlay Denise Gruben	PRD WLD (Wildlife Division) WLD FD (Fisheries Division) FMD (Forest Management Division) FMD FMD FMD LED (Law Enforcement Division) MOD (Marketing and Outreach Division) OLAF (Office of Land and Facilities)
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# CORE VALUES

Guidance for the General Management Plan stems from the mission statements of the department and the 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 Pontiac Lake Recreation Area and subsequently reflected in any shorter range action plans:

**Department of Natural Resources Mission Statement** "The Michigan Department of Natural Resources is committed to the conservation, protection, management, and accessible use and enjoyment of the state's environment, natural resources, and related economic interests for current and future generations."

#### Parks and Recreation Division Mission Statement

"The Parks and 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 the Parks and Recreation Division will acquire, preserve, and protect:

- Natural resources
- Cultural resources
- Provide public recreation
- Provide educational opportunities

#### Park Purpose

Pontiac Lake Recreation Area (PLRA) is an integral part of the state park system. It is important as a home for wildlife and aquatic species, its role in a diverse local ecosystem, and for its recreational opportunities for people. Park purpose statements and based on park legislation, legislative history, special designations and DNR policy. PLRA is designated as a *state recreation area*. State recreation areas are defined as large areas convenient to centers of dense population, with a diversity of intensive and extensive recreation, as well as a diversity of natural features and natural beauty. These statements reaffirm the reasons why PLRA is part of the state park system:

- Special legislative mandate, Section 3, Act 17, Public Acts 1921, to establish state parks and state recreation areas in Michigan
- To preserve and protect the park's unique natural resources for current and future generations
- To preserve and protect the park's historic and cultural resources for current and future generations

- To provide educational and interpretive opportunities to the public that reflect the mission of DNR
- To provide opportunities for recreational uses and experiences that are compatible with the park's resource base
- To provide experiences and opportunities for recreational uses, including mountain biking, horseback riding, hunting, hiking, fishing, swimming, trapping, and camping to a large urban population

#### PARK SIGNIFICANCE

Pontiac Lake Recreation Area contains many significant elements of Michigan's natural and cultural heritage. Its unique features allow park management to achieve park purposes. Park significance statements capture the essence of the park's importance to our state's natural and cultural heritage. These statements describe the distinctiveness of PLRA. Understanding these distinctions help managers make decisions that preserve the resources and reflect the values necessary to accomplish the park's purpose:

- Provides large tracts of unfragmented resources, including woodland, wetlands, a riparian corridor, and many *potential natural areas*, as defined by MNFI<sup>1</sup>
- Offers a prime location for protection of endangered species and plants due to its large area of undeveloped land
- Gives a home to a wide variety of wildlife and provides great opportunities for viewing of wildlife
- Affords year round park activity to the most populated region in the state, Southeast Michigan
- Possesses the largest beach (1,600 feet) on an inland lake in Oakland County
- Contains a section of the Huron River and lies near the headwaters of the Clinton, Huron, and Shiawassee Rivers
- Serves as an important regional hub for green infrastructure in Oakland County, linking miles of park land, open space, and trails throughout Southeast Michigan
- Supplies public access to a large area for hunting

<sup>&</sup>lt;sup>1</sup> Michigan Natural Features Inventory. Oakland County Potential Conservation/Natural Areas Report. 2004

- Includes the remains of pre-historic glacial moraines, which give it its unique topography and views (160 feet above Pontiac Lake in places)
- Adds \$2.32 million to the local economy every year

#### Legal Mandates

For all park General Management Plans, all legal mandates will be identified and will serve to further guide the development of the General Management Plan and subsequent Action Plans. For our planning purposes, the term *legal mandates* refers not only to state law, but also the administrative tools of *policy* and *directive* of the Natural Resource Commission, the Department, and Recreation Division. Examples include Wildlife Conservation Orders, Orders of the Director, and all other laws, commission orders, and rules or directives that apply to the park. Specific to Pontiac Lake Recreation Area, the following legal mandates have been identified:

#### PA 451 OF 1994, PART 741

STATE PARK SYSTEM, NATURAL RESOURCE AND ENVIRONMENTAL PROTECTION ACT

This act is a recodification of law that established the Michigan State Park System and defined its powers and duties. Notable in this law is the Section <u>324.74102</u>, 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."

Within this law, 324.74101 (e), "state park" means a *state park* or *state recreation area* designated by the director.

<u>PA 368 OF 1978, ARTICLE 12 - ENVIRONMENTAL HEALTH, PART 125 - CAMPGROUNDS</u> – This Act was established to protect and promote the public health by establishing health code requirements specifically addressing campgrounds. The Department of Environmental Quality (DEQ), Drinking Water and Radiological Protection Division, is the administering agency that is responsible for the promulgation of the Administrative Rules for Campgrounds.

All public (including DNR) and private campgrounds must meet these DEQ regulations.

PA 35 of 2010, PART 741 ("Recreation Passport") – This act amended the Michigan Motor Vehicle Code to provide for a State Park and State-operated public boating access site "Recreation Passport" that a Michigan resident may obtain by paying an additional fee when registering a motor vehicle. The Recreation Passport is required for entry into all PRD administered facilities and takes the place of the Motor Vehicle Permit (MVP) previously required to be displayed on the windshield.

<u>Dedicated Boundaries</u> – The Natural Resources Commission reviewed and rededicated boundary changes for Pontiac Lake Recreation Area in 2004.

<u>Land Use Orders from the Director</u> - There are additional legal requirements at PLRA that are classified as *land use orders of the director*. These specifically allow or restrict certain recreational uses at the park.

By authority conferred on the Director of the Department of Natural Resources by Section 504 of Act No. 451 of the Public Acts of 1994, as amended, being section 324.504 of the Michigan Compiled Laws and in accordance with R 299.671 and R 299.922 of the Michigan Administrative Code, the Director of the Department of Natural Resources orders that the following order of the Land Use Orders of the Director shall read as follows:

Chapter V - State Parks and Recreation Areas

5.2 Possession or consumption of alcoholic beverages in certain state parks and recreation areas, prohibited conduct.

Order 5.2. A person shall not do any of the following

(7) Possess or consume an alcoholic beverage at any time within the following described locations:

(e) Pontiac Lake RA - All state-owned lands in section 18, T3N R9E, and sections 12 and 13, T3N R8E, without the written authorization of the park manager.

Pontiac Lake recreation area, prohibited conduct.

(6) A person shall not do any of the following at the Pontiac Lake RA:

(a) Possess or fly a hang glider on any state-owned lands within the Pontiac Lake RA.

(b) Enter into a pen area or buffer zone around a pen area established by the department from June 10 to July 15 for the temporary holding of geese. This prohibition shall not apply to a person issued a written permit by the district wildlife supervisor allowing entry into the area.

#### **RIGHTS-OF-WAY**

There are several rights-of-way and easements in PLRA. The proliferation of utility easements makes the protection of natural resources more difficult. It also damages the aesthetics. Therefore, current management practices discourage them. The number of easements running through the park provides a challenge when considering any new development of infrastructure or stewardship efforts. Knowing what it is underground, overhead, and who holds rights to the land is crucial to the park's development. Ownership of land often is described as a bundle of sticks—one stick for mineral rights, one stick for trespass, one stick for ownership of buildings on the land, etc. In other words, there are numerous parties that hold rights to the land within PLRA. There may be more easements than are known by the State of Michigan.

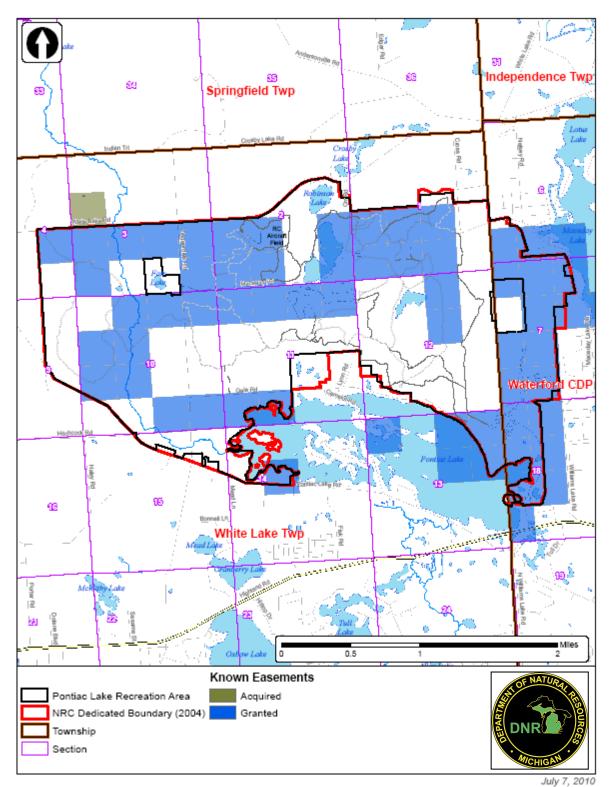
Many of the rights-of-way are located along roads and highways that run through or along the borders of the park. Some bisect the park and create natural boundaries. Most of the easements permit grantees to clear trees and vegetation within their easements. This has implications for stewardship efforts in the park. Also, it restricts what can be developed in the park. For example, buildings and structures cannot be placed on the easements. However, in some cases, e.g. (DOC # 2088), grantees agree to relocate their lines if the state decides to erect a building within the easement. Easements can be found within each of the proposed management zones within the park—the backcountry zone, developed recreation zone, natural resources recreation zone, primitive zone, and the visitor services zone. Also, since PLRA is an agglomeration of many parcels, these individual parcels may contain specific easements or deed restrictions. We may not be aware of other easements that exist.

Known Lasements at Pontiac Lake State Recreation Area							
Description	DOC # **	Acres	Year Granted	Park Zones*	Township		
Power Lines "A"	1312	0.5	1947	NRR, DR	White		
					Lake		
Power Lines "B"	1625	3.42	1949	DR	White		
					Lake		
Power Lines "C"	2088	40	1952	DR, VS	Waterford		
Power Lines "D"	2276	40	1953	Р	White		
					Lake		
Power Lines "E"	4026	40	1966	NRR, BC	White		
					Lake		
Power Lines "F"	4590	28	1971	BC, P	White		
					Lake		
MichCon	8282	40	1996	BC, P	White		
					Lake		
Telephone Lines	2357	40	1953	NRR	White		
					Lake		
AT&T Tower	9127	23.12	2002	BC	White		
					Lake		
County Drain Commissioner "A"	2546	0.9	1955	DR	Waterford		
County Drain Commissioner "B"	5662	9.36	1978	DR	Waterford		
Waterford DPW	6374	0.67	1982	NRR	Waterford		
County Road Commission	7123	40	1987	NA	White		
"A"					Lake		
County Road Commission	8276	40	1996	NRR, B	White		
"B"					Lake		
Gale Property	1328	33.83	1947	VS	Waterford		
MDEQ	9319	3.22	2002	BC	White		
					Lake		
ITC Towers	NA	NA	NA	NA	White		
					Lake		

#### Known Easements at Pontiac Lake State Recreation Area

Source: State of MI, Land Information System \*Park Zones are the Backcountry Zone (BZ), Developed Recreation Zone (DR), Natural Resources Recreation Zone (NRR), Primitive Zone (P), and Visitor Services Zone (VS)

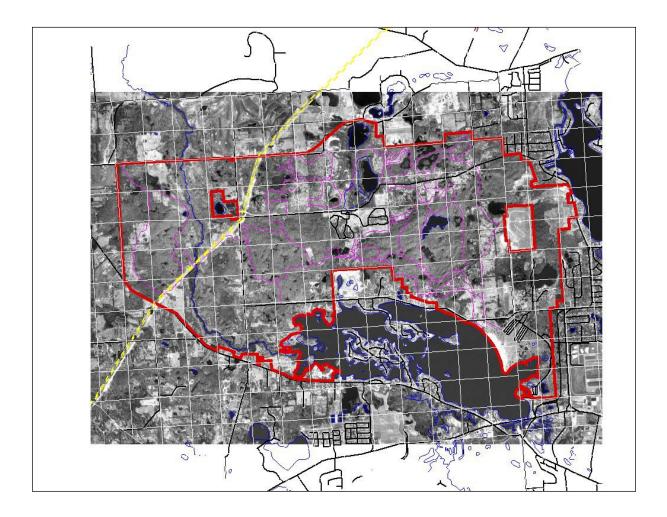
\*\* The DOC # refers to its reference number through the State of MI Land Information System



Granted and Acquired Easements at Pontiac Lake Recreation Area

Source: MDNR, Land Information System

Quarter-Quarter Sections in PLRA



#### **DETROIT EDISON UTILITY EASEMENT "A"**

Date Granted: March 4, 1947 Acreage: 0.5 T/R: 03N – 08E

Detroit Edison has a 30 foot wide easement for power lines that cuts across Gale Road near Williams Lake Road. It may cut or trim trees necessary for the maintenance of their lines. This easement falls within the *natural resources recreation* and *developed recreation* zones.



#### **DETROIT EDISON UTILITY EASEMENT "B"**

Date Granted: March 16, 1949 Acreage: 3.42 T/R: 03N – 08E

Detroit Edison has a 30 foot wide easement for power lines along Pontiac Lake Road near M-59. It may cut or trim trees necessary for the maintenance of their lines. Also, they may not interfere with or cause damage to the plantation of Chinese Elm trees located near the easement. This easement falls within the park's *developed recreation zone*.

#### DETROIT EDISON UTILITY EASEMENT "C"

Date Granted: February 8, 1952 Acreage: 40 T/R: 03N – 09E

Detroit Edison has an easement to maintain electrical poles and lines along Gale Road near Williams Lake Road. The lines should follow the existing road right-ofway as closely as possible. DTE has a 30' wide easement near Gale Road and Williams Lake Rd. for power lines. Detroit Edison may trim trees necessary for the maintenance of their lines. DTE agrees to relocate the portion of their lines that would extend over any state-owned building that may be constructed there. This easement falls within the park's *developed recreation* and *visitor services* zones.

#### DETROIT EDISON UTILITY EASEMENT "D"

Date Granted: June 12, 1953 Acreage: 40 T/R: 03N – 08E

Detroit Edison has an easement to set poles and lines along a portion of Gale Road near Teggerdine. This easement only allows for them to set their poles and lines, not to clear any trees. All cutting of trees must be approved by a DNR Field Representative. This easement falls within the park's *primitive zone*.

#### **DETROIT EDISON UTILITY EASEMENT "E"**

Date Granted: October 20, 1966 Acreage: 40 T/R: 03N – 08E

DTE has a 20 foot wide easement for power lines and to extend telephone wires along Maceday Road near Teggerdine Road. Detroit Edison may remove all trees and brush necessary to service their lines. This easement falls within the *backcountry*, *natural resources recreation*, and *developed recreation* zones.



#### DETROIT EDISON UTILITY EASEMENT "F"

Date Granted: January 28, 1971 Acreage: 28 T/R: 03N – 08E

Detroit Edison has a 90 foot wide easement for power lines. No buildings or structures can be placed on or within this easement by the State of Michigan without the written consent of Detroit Edison. Detroit Edison has the right to clear cut any trees within 30 feet of this easement. This easement falls within the park's *backcountry* and *primitive zones*.

#### MICHCON GAS LINE

Date Granted: June 26, 1996 Acreage: 40 T/R: 03N – 08E

MichCon has rights and access to a 20 foot wide easement for an underground gas line near Waldon Road. MichCon has the right to cut all trees and brush that interfere with maintenance of the line. No herbicides may be used on the easement. MichCon is subject to several restoration and maintenance conditions on the easement. They are required to develop a written mitigation plan as approved by MDNR Stewardship Coordinator for vegetation restoration. MichCon must maintain steel gates to block vehicular access to the right-of-way. Also, the MDNR retains its right to develop new roads and trails adjacent to or across the easement. This easement falls within the park's *backcountry* and *primitive zones*.

#### **TELEPHONE RIGHT-OF-WAY**

Date Granted: August 7, 1953 Acreage: 40 T/R: 03N -08E

The phone compary (formerly Michigan Bell) has an easement to maintain its wires, which are attached to poles that run along Orr and Maceday Roads. The lines should run as closely as possible to the existing rights-of-way for the roads. This easement falls within the *natural resources recreation* zone.

#### AT&T WIRELESS COMMUNICATION TOWER

Date: September 3, 2002 Acreage: 23.12 T/R: 03N – 08E

AT&T has a 10 year lease through 2012 to maintain a telecommunications tower in the park near Pontiac Lake Road. The tower consists of twelve 116' antennae, which sit on a 30 by 30 feet site. There is a short access road leading from Pontiac Lake Road to the site, which is locked and gated. The road and parking lot must be gated to prevent any ORV access. Trees and brush can be removed along the guard rail on the access road. The tower falls within the park's *backcountry zone.* 

#### COUNTY DRAIN COMMISSIONER "A": STORM SEWER EASEMENT

Date Granted: February 11, 1955 Acreage: 0.9 T/R: 03N – 09E

The Oakland County Drain Commissioner has rights to access and maintain a storm sewer, which is located within a 15 foot easement. It is located near the intersection of Williams Lake Road and Karr Blvd. leading to a pond near Pontiac Lake. It falls within the park's *developed recreation zone*.

#### COUNTY DRAIN COMMISSIONER "B": SANITARY SEWER EASEMENT

Date Granted: April 17, 1978 Acreage: 9.36 T/R: 03N – 09E

The Oakland County Drain Commissioner has an easement that ranges between 15 and 25 feet to maintain a sanitary sewer line near Ladue Street and Williams Lake Road. No herbicides can be used along this easement. This easement falls within the park's *developed recreation zone*.

#### WATERFORD DPW: WATERFORD TOWNSHIP WATER LINE

Date Granted: September 7, 1982 Acreage: 0.67 T/R: 03N – 09 E

Waterford Twp. has rights and access to a 66 foot easement within the limits of Maceday Road. No herbicides may be used within the easement. This easement falls within the park's *natural resources recreation* zone.

# ROAD COMMISSION "A": UTILITY EASEMENTS ON ABANDONED PORTIONS OF MACEDAY AND ORR ROADS

Date Granted: September 17, 1987 Acreage: 40 T/R: 03N – 08E

Oakland County Road Commission abandoned parts of Orr and Maceday Roads. Those parts of the abandoned roads are subject to easements for public utility and road drainage purposes.

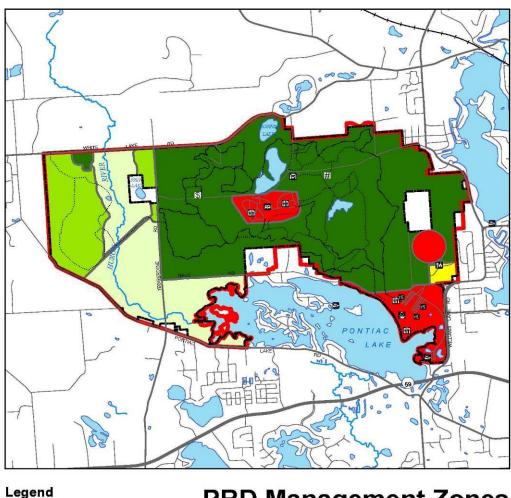
## GENERAL MANAGEMENT PLAN

With guidance of the Pontiac Lake RA Planning Team (inclusive Department participation) and input from our stakeholders and the public, the park Purpose and Significance statements were drafted and adopted. This established an identity for Pontiac Lake Recreation Area that highlights; the unique physical and historic qualities of the land, from its inception as a park for the Urban area of Southeast Michigan, to the ecological importance and rarity of the threatened and endangered Flora and Fauna that are protected here, and the opportunities for educational interpretation, and active and passive recreation.

Based on this 'identity' for the park, a Management Zone Plan was developed with stakeholder support and public input. The Management Zone Definitions apply to each zone used, with special considerations highlighted in the following descriptive narratives of management guidance for each zone of the park:

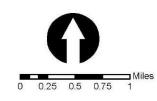
Pontiac Lake Recreation Area

### MANAGEMENT ZONE PLAN



## **PRD Management Zones**

Pontiac Lake Recreation Area



Pontiac Lake Recreation Area
NRC Dedicated Boundary (2004)

Pavillion Boat Launch

Archery Range

Shooting Range

Equestrian Facilities

Developed Recreation

Natural Resource Recreation

**Hiking Trails** 

Equestrian Trails
 Bike Trails
 Bath House
 Headquarters

Toilet/Shower

🖾 Modem

# Equestrian

\$ Organizational

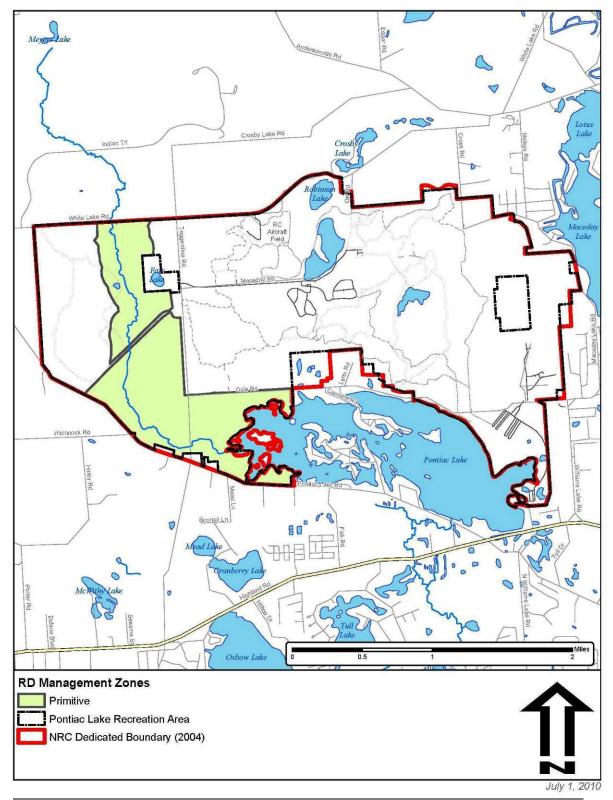
Primitive
 Visitor Services

PRD Management Zones

November 17, 2009

Pontiac Lake Recreation Area

### **PRIMITIVE ZONE**



Pontiac Lake Recreation Area 

General Management Plan

This 644.5 acre zone (approximately 19% of the park) represents a mesic southern forest and wetland complex of emergent and shrubby species. It also encompasses the wetlands and river corridor for the Huron River. It is suitable for only dispersed, low impact recreation such as hunting, trapping, and birding.

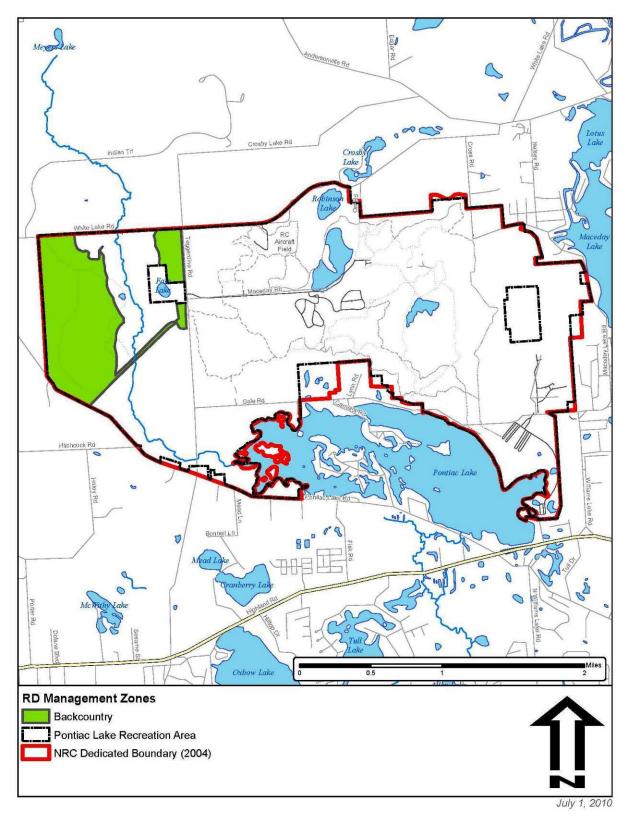
The Zone is defined by Pontiac Lake Road along its southwest boundary. Along the northwest boundary is a Consumers Energy utility easement. The company maintains a 90-foot clear zone. The river corridor is determined by the wetlands defined by the National Wetlands inventory of the area, which averaged to  $\frac{1}{4}$  mile from the west of the river and  $\frac{1}{2}$  mile from the east of the river (the distances are measured for ease of management activities to define the area). Along its east edge of the zone is Teggerdine Road and the north edge is defined by Gale road.

Following are the values to be attained in this zone:

- <u>Natural Resources</u> This zone contains the Huron River corridor and associated wetlands, an exemplary occurrence of mesic southern forest (beech – sugar maple) on 2 "islands" within the wetlands west of Teggerdine Road, and a small patch of prairie containing rare plants. Protection and management of these natural features is the primary goal within this zone. In general, control of invasive species, disease or pests, restoration of natural habitats, or hazard tree removal will be the only desired vegetative management methods.
- <u>Historic/Cultural Resources</u> Numerous old farmsteads dot this landscape. Several are known, but there is a potential for more to exist. Most of the sites in this zone are protected by heavy vegetation. All development that may impact these resources should be approved by PRD Stewardship Unit before proceeding.
- <u>Recreational Opportunities</u> With the focus of this zone being to maintain or enhance the current habitat conditions, only dispersed low impact recreation will be allowed in this zone for hunting, trapping, birding, hiking and other low impact uses. Trails will be kept very low density. No bicycle, equestrian, 'All Terrain Vehicle' (ATV), 'Off-Road Vehicle (ORV), snowmobile, or any other nonpedestrian form of conveyance is allowed in this zone.
- <u>Education Opportunities</u> The Huron River corridor, wetlands, and high quality forest within this zone present a good opportunity for interpretation. Educational materials can be presented through guided hikes or the use of carefully placed kiosks at trailheads and at other locations (within other zones of the park). Specific planning recommendations for education and interpretation will require input from the Marketing and Outreach Division (OC) and others.
- <u>Visitor Experience</u> This zone will allow visitors a high degree of 'natural' feel, a significant sense of solitude, and a lack of man-made improvements. Protection of this visitor experience is especially important at Pontiac Lake Recreation area due to its location in a highly developed and growing area.

- <u>Management Focus</u> The focus of management in this zone will be on restoring and protecting the unique natural features, including the mesic southern forest, the Huron River and its wetlands, and the prairie remnant. An invasive species inventory and threat assessment should be undertaken, followed by active control efforts where necessary. Prescribed fire may be used where appropriate, such as in the prairie opening. All river and wetland trail crossings should be evaluated and upgraded where needed to eliminate erosion and degradation to water quality and natural hydrology. A stewardship Management Plan should be written and followed. Boundaries of state ownership should be clearly marked and maintained.
- <u>Development</u> The focus is to maintain as little evidence of human activity as possible. Only trail improvements (such as boardwalks and bridges) that are needed to protect the natural features from damage, and educational or interpretive signage, will be the evidence of man-made elements in this zone. Any improvements needed for resource protection, such as erosion control, shall be 'natural' in character. All development will meet the approval requirements of the planning and stewardship processes.

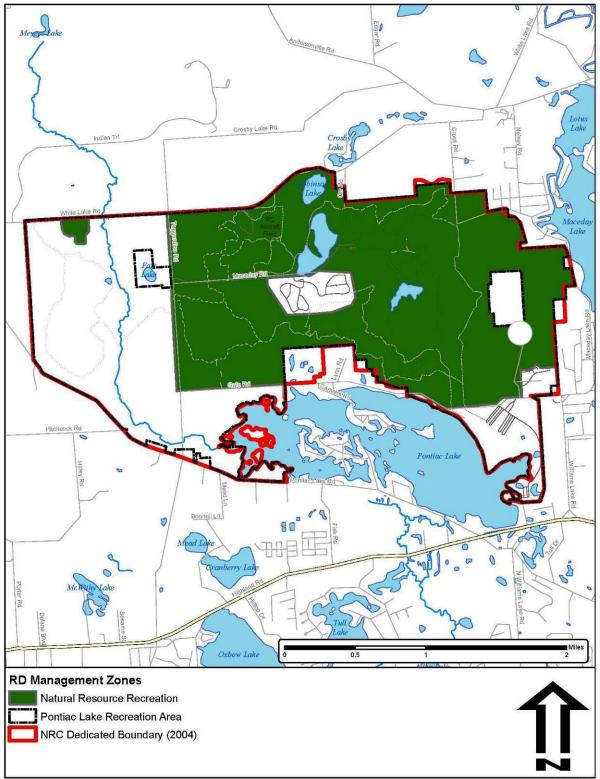
## **BACKCOUNTRY ZONE**



This 382.7 acre zone (approximately 11% of the park) is characterized principally a lowland hardwood forest and limited amounts of wetland with emergent and shrubby species. In this zone, use will be limited to low impact activities such as hiking and equestrian trail use, hunting, fishing, mushrooming, birding, trapping, and other dispersed-use activities. Following are the values to be attained in this zone:

- <u>Natural Resources</u> This zone contains a primarily forested area west of Teggerdine Road, with some old fields. Protection and management of forest habitat is the primary goal within this zone.
- <u>Historic/Cultural Resources</u> Numerous old farmsteads dot this landscape. Several are known, but there is a potential for more to exist. Most of the sites in this zone are protected by heavy vegetation. All development that may impact these resources should be cleared by PRD Stewardship Unit before proceeding.
- <u>Recreation Opportunities</u> The focus of this zone is protection of the forested ecosystem it contains, but use is not as restrictive as in the adjacent Primitive Zone. Many self-reliant, non-motorized activities could be allowed within this zone, including hiking, hunting, equestrian, and mountain bikes. Trails will permit non-motorized traffic only and will be kept to a relatively low density. No snowmobile, ORV, or ATV use is allowed in the zone.
- <u>Education Opportunities</u> The forest and other natural features within this zone are probably best experienced through personal discovery and observation. Most interpretation in this zone would primarily be in the form of guided hikes by the explorer guide or by carefully located interpretive kiosks. Interpretation of this zone's features off site (within the developed recreation zone or elsewhere) is encouraged.
- <u>Visitor Experience</u> There is a high degree of 'natural' feel of the zone, but with more opportunity for contact with others along trails.
- <u>Management Focus</u> The focus of management in this zone will be on restoring and protecting the unique natural features, especially the forest. An invasive species inventory and threat assessment should be undertaken, followed by active control efforts where necessary. Prescribed fire may be used where appropriate, such as in the prairie opening. All river and wetland trail crossings should be evaluated and upgraded where needed to eliminate erosion and degradation to water quality and natural hydrology. A Stewardship Management Plan should be written and followed. Mark and maintain clear boundaries of state ownership.
- <u>Development</u> Maintain low levels of human development. Small parking areas, vault toilets, and/or hand water pumps may be provided along roadsides, but not in the interior of the zone. Trail improvements (such as bridges and boardwalks) will be used as necessary to protect the natural features from

damage. Interpretive kiosks may be installed. All erosion control measures or other resource management activities should maintain a 'natural' character. All development will meet the approval requirements of the planning and stewardship processes.



### NATURAL RESOURCE RECREATION ZONE

July 1, 2010

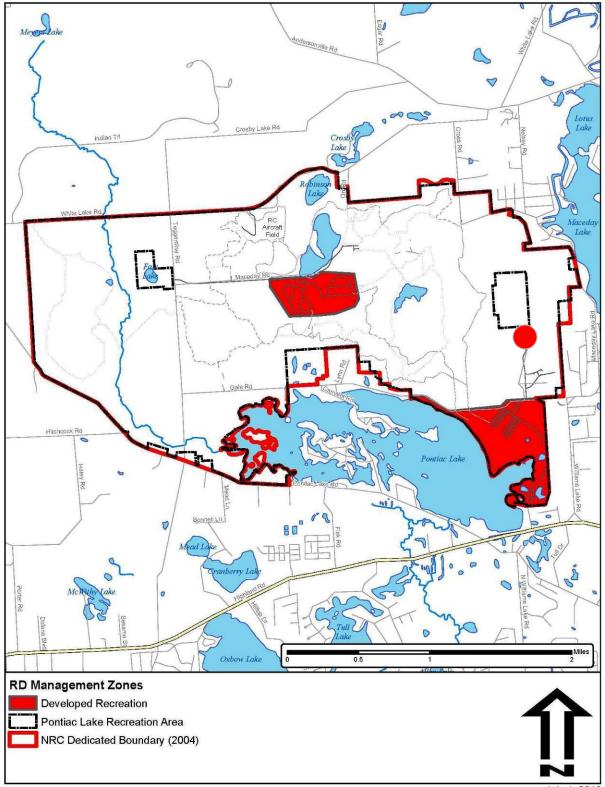
This zone is approximately 61.2% of the park with 2,102.5 acres of land located in the central part of the park. The land is characterized by rolling wooded terrain, wetland areas, and several seasonal ponds. In this zone, more active recreation takes place with mountain biking, equestrian and pedestrian trails as well as a model airplane flying field and modern shooting range.

The purpose of this designation is to recognize the more intensive public use of the area for general recreational purposes, including hunting; fishing, boating, trapping, birding, and trail use for hiking, bicycling, and cross-country skiing. Larger regional multi-use trails of varying surfaces could be accommodated in this zone as well. Snowmobile use is allowed in designated areas. This Natural Resource Recreation Zone is described as follows:

- <u>Natural Resources</u> The primary long-term goal for this zone is eco-system management that promotes the diversity of native (natural) communities. This zone contains a high-quality dry southern forest (oak forest) north of Gale Road and east of Teggerdine Road. This forest supports rare forest-interior birds, including hooded and cerulean warblers. The remainder of the zone contains lower quality (but still important) forests, wetlands such as marshes and inundated shrub swamps, and old fields. Protection and management of these natural features is an important goal within this zone.
- <u>Historic/Cultural Resources</u> There are no known cultural resources in this zone, but there is a potential for some to exist. All development that may impact potential resources should be cleared by PRD Stewardship Unit before proceeding.
- <u>Recreation Opportunities</u> While this zone emphasizes natural resource quality over recreation, a moderate to high level of recreation can be supported in this portion of the recreation area. Many low to moderate impact recreational activities could be allowed within this zone, including equestrian use, rustic camping, mountain bikes, and possibly some snowmobile activities. Any snowmobile recreation would have to be evaluated and permitted only to the extent that it does not significantly damage the natural resources (especially the high-quality forest and wetlands), and associated wildlife. Trail density will be higher in this zone than in the Backcountry Zone, but still must be kept to a level that does not significantly damage the natural resource base. Larger regional multi-use trails could be accommodated in this zone as well. Trail density should be evaluated most closely for resource impacts in the southwest portion of this zone where the high-quality oak forest and rare birds occur.
- <u>Education Opportunities</u> The primary means of user access is by the various trails that extend throughout the zone. Informational kiosks at campgrounds, trail heads, and along the trails at critical locations are appropriate. Potential themes for educational messages include: forests, wetlands, protection of species, and other natural features.

- <u>Visitor Experience</u> The visitor can expect encounters with other park visitors any time of the year. The trails are a popular component and are used in all seasons. General use of this zone for hunting, fishing, and other dispersed activities can be expected.
- <u>Management Focus</u> The management focus in this zone will be on providing a high-quality recreational experience, and restoring and protecting the unique natural forest and wetland features. The trail system should be regularly evaluated for potential impacts on natural resources and user conflicts; these impacts should be mitigated as much as possible. An emphasis on public awareness of the educational opportunities in this and other zones, and develop/maintain universal access to same are important management components in this zone. Mark and maintain clear boundaries of state ownership.
- <u>Development</u> Development activity will focus on recreation needs and educational efforts to interpret natural and cultural resources. All development will meet the approval requirements of the planning and stewardship processes.





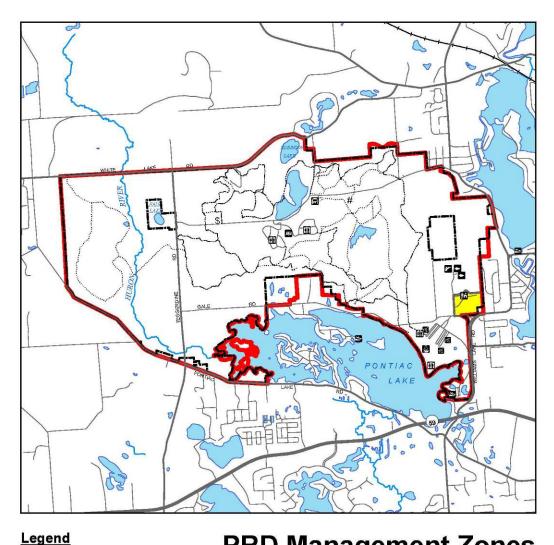
July 1, 2010

Comprised of 277.1 acres (about 8% of the park), the 'Developed Recreation' components of the park are consolidated on Pontiac Lake, and in the Modern Campground. It includes a Modern Campground, Picnic Area and Beach, and Boating Access Site.

- <u>Natural Resources</u> In this zone, active recreation dominates, with natural resource attributes enhanced when possible. This area is not designated for natural resource significance. Hazard trees in 'target zones' will be identified and removed.
- <u>Historic/Cultural Resources</u> There are no known cultural resources in this zone, but there is a potential for some to exist. All development that may impact potential resources should be cleared by PRD Stewardship Unit before proceeding.
- <u>Recreation Opportunities</u> A high level of recreation is the focus of this zone. Camping, picnicking, boating, fishing, trail use, general day-use activities, and use of a modern shooting range are accommodated and encouraged. The Campground provides fully modern camping for 176 sites. Hunting is not allowed within this zone.
- <u>Education Opportunities</u> In this most populated and visited of the zones in the park is found the most opportunities for education and interpretation. The State Park Explorer Program can take advantage of this in recruiting interest from campers for their interpretive programming. Interpretive displays/kiosks can be located here to educate park visitors about the significant resources elsewhere in the park. This program has focused on natural communities (flora and fauna). The opportunity exists for an expanded educational focus in this zone on the history of the park, wildlife and fisheries management, and other DNR related topics and issues.
- <u>Visitor Experience</u> With the focus of this zone being the developed campgrounds and other attributes, the visitor will experience a high level of encounters with other park visitors during the summer months. Contrary to many parks, Pontiac Lake RA shows significant use throughout the year.
- <u>Management Focus</u> Maintain the infrastructure that serves the intense public uses within this zone. Provide educational opportunities in the zone for the entire park, develop/maintain 'universal access' in the zone, and maintain public safety and good hospitality practices.
- <u>Development</u> Provide 'universal access' improvements as needed to attain 'facility' and 'program' accessibility. Improve facilities to complement education. All development will meet the approval requirements of the planning process.

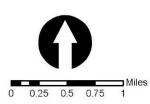
Pontiac Lake Recreation Area

### **VISITOR SERVICES ZONE**



## PRD Management Zones

Pontiac Lake Recreation Area



C

2

12

H

Modern

# Equestrian

Pontiac Lake Recreation Area

Hiking Trails

Equestrian Trails
 Bike Trails
 Bath House

Headquarters

Toilet/Shower

\$ Organizational

PRD Management Zones

NRC Dedicated Boundary (2004)

Pavillion

1

Boat Launch

Archery Range

Shooting Range

Equestrian Facilities

November 17, 2009

This well defined zone located off of Gale Road contains 31.1 acres, less than 1% of the park.

The zone encompasses the developed areas required for program administration and operations. Typically it will include offices, contact stations, maintenance facilities and all related land base required to conduct the business of running a state park or recreation area.

- <u>Natural Resources</u> In general, the natural resources can be modified to support the needs for administration of the park.
- <u>Historic/Cultural Resources</u> There are no known historic or cultural resources in this zone.
- <u>Recreation Opportunities</u> Limited. This entire zone is closed to hunting and trapping.
- <u>Education Opportunities</u> Educational materials can be made available in the office 'public space', and office staff can provide verbal information. There is a great opportunity to direct visitors to other informational locations in the park.
- <u>Visitor Experience</u> Visitor access at the office is limited to informational purposes.
- <u>Management Focus</u> Provide public and employee 'universal access' (meet or exceed ADA requirements) to the contact station and office from the parking lot, and 'universal access' within the building. Assure security of offices, facilities and equipment. Provide a safe working environment for staff. Mark and maintain clear boundaries of state ownership.
- <u>Development</u> Development in this zone will be for purposes of complementing the administrative needs of the park and meeting the needs for 'universal access' compliance. All development will meet the approval requirements of the planning process.

# **FUTURE PLAN INSERTS**

**10-Year Action Plan** (LONG-RANGE ACTION GOALS TO ATTAIN GMP) - Phase-2 of the Management Planning Process

5-Year Action Plan (SPECIFIC ACTIONS TO IMPLEMENT) - Phase-3 of the Management Planning Process

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 (NOTE...this should reflect the values and emphasis of the Zones established for the park and tie-in with Phase 4 – Annual Report of Management Planning)
- Staffing
- Budget
- Equipment
- Training
- Public Relations / Marketing / Outreach
- Programming (i.e. special events, MMETDC, volunteers, etc.)
- Public Health, Safety, and Welfare
  - Water system
  - Wastewater system
  - Electrical system
  - Law enforcement
  - Emergency access plans
  - Wildfire plan
- CRS
- FOIA
- Infrastructure Inventory
- Raster Image Index
- Raster Images of historic park plans
- Stewardship Management Plan
- Other...

# SUPPORTING ANALYSIS

# PARK SETTING

# Location and Surrounding Community

Pontiac Lake Recreation Area (PLRA) lies in the northwest section of Oakland County in Southeast Michigan. Oakland County's current population is over 1.2 million and continues to grow, along with other outlying counties in the Detroit area. The park lies within close proximity to several large urbanized regions. It lies approximately 30 miles north of Detroit, 40 miles south of Flint, 10 miles west of Pontiac, and 50 miles east of Lansing.



The park is roughly bordered by M-59 to the south, White Lake Road to the north, Williams Lake Road to the east, and Cuthbert and Pontiac Lake Roads to the west. The park is approximately 3,438 acres in size. It includes Pontiac Lake, which is an artificial body of water created by damming the Huron River north M-59. The lake covers approximately 640 acres of area. Although the park lies within an urbanizing county, it maintains many significant natural resources. It has unique topography due to the recession of glaciers. It contains a section of the Huron River and is near the headwaters of the Clinton, Huron, and Shiawassee Rivers. Vegetation ranges from upland oak-hickory forests to lowland bogs. Its neighbors include low density residential uses to the north and west, park land to the north, and urbanized areas to the east and south of the park.

# **Demographics**



The settlement where the Saginaw Trail crossed the Clinton River is the beginning of Oakland County. In 1819 the county was officially declared, named after the abundant oak trees throughout the area. Not popular among lumbermen, the county was agriculturally productive. Oakland County grew industrially and residentially, today being a strong seat of Michigan's urban core.

# Population

All of the surrounding communities have grown steadily in the past 40 years. Most of the surrounding townships have grown by over 100 percent. Waterford Township has experienced the least growth. It is nearly built out and it is forecasted to lose population between 2000 and 2006. The area around the rest of PLRA is becoming increasingly populated. This increases the chance for users as well as for user conflicts.

		Surro	ounding Co	ommunities	s of Pontia	ac Lake Re	creation A	rea		
Community	1960	1970	% Change, 1960- 1970	1980	% Change, 1970- 1980	1990	% Change, 1980- 1990	2000	% Change, 1990- 2000	% Change, 1960- 2000
White Lake Township	8,381	14,311	70.8%	21,870	52.8%	22,608	3.4%	28,219	24.8%	236.7%
Commerce Township	9,608	14,556	51.5%	18,789	29.1%	22,228	18.3%	34,764	56.4%	261.8%
Highland Township	4,855	8,372	72.4%	16,958	102.6%	17,941	5.8%	19,169	6.8%	294.8%
Independence Township	10,121	16,327	61.3%	20,569	26.0%	23,717	15.3%	32,581	37.4%	221.9%
Springfield Township	2,664	4,388	64.7%	8,295	89.0%	9,927	19.7%	13,338	34.4%	400.7%
Waterford Township	47,008	59,123	25.8%	64,250	8.7%	66,692	3.8%	73,150	9.7%	55.6%
Oakland County	690,259	907,871	31.5%	1,011,793	11.4%	1,083,592	7.1%	1,194,156	10.2%	73.0%

Population Comparison, 1960-2000

Source: U.S. Census 1960-1990

#### Future Population in Surrounding Communities of Pontiac Lake Recreation Area

Community	2000	Jan 2006	% Change, 2000- 2006	2030	% Change, 2006- 2030
White Lake Township	28,219	30,580	8.37%	34,313	12.21%
Commerce Township	34,764	35,794	2.96%	41,019	14.60%
Highland Township	19,169	20,024	4.46%	21,681	8.28%
Independence Township	32,581	34,760	6.69%	38,103	9.62%
Springfield Township	13,338	14,362	7.68%	20,326	41.53%
Waterford Township	73,150	71,082	-2.83%	72,863	2.51%
Oakland County	1,194,156	1,220,487	2.20%	1,333,573	9.27%

Source: SEMCOG

Growth is expected to continue over the next 25 years. It is projected that the townships north of PLRA will continue to grow significantly, including Springfield and Independence Township. This will likely bring pressure to develop more infrastructure to accommodate new residents. This could include widening roads, water, sewer, utilities, waste treatment, etc. There could be pressure on Michigan Department of Natural Resources (MDNR) to allow more utility easements on PLRA. Currently, there are few sewer lines that run north of M-59 in White Lake and Springfield Township. This is a principal impediment to more intense growth.

County	1990 Census	2000 Census	January 2000 SEMCOG	2030 Forecast
Livingston County	115,645	156,951	185,097	282,552
Macomb County	717,400	788,149	835,357	930,420
Monroe County	133,600	145,945	154,947	196,554
Oakland County	<mark>1,083,592</mark>	<mark>1,194,156</mark>	<mark>1,220,487</mark>	<mark>1,333,573</mark>
St. Clair County	145,607	164,235	173,342	203,255
Washtenaw County	282,937	322,770	345,207	448,020
Wayne County	2,111,687	2,061,162	2,003,724	2,013,975
Source: SEMCOG	÷	•	•	•

#### Future Population for Neighboring Counties of Pontiac Lake Recreation Area

Oakland County has undergone sustained growth from 1960 to 2000. Population continues to migrate from Wayne County out to the surrounding counties around Detroit. Oakland County has the second largest population in metro Detroit. PLRA lies in the middle of that growth.

Race	1990 Census	2000 Census	2000 Census Alone or Combined
White	970,674 (90%)	988,194 (83%)	1,007,744 (83%)
Black	77,488 (7%)	120,720 (10%)	126,811 (10%)
American Indian	3,948 (0%)	3,270 (0%)	9,324 (1%)
Asian	24,967 (2%)	49,402 (4%)	54,764 (4%)
Pacific Islander	136 (0%)	295 (0%)	858 (0%)
Other Race	6,379 (1%)	10,064 (1%)	18,204 (1%)
Multi-Racial	n/a	22,211 (2%)	n/a
Total Population	1,083,592	1,194,156	1,217,705***
Hispanic Origin	19,630 (2%)	28,999 (2%)	n/a
Not of Hispanic Origin	1,063,962 (98%)	1,165,157 (98%)	n/a

# Oakland County Population by Race and Hispanic Origin, 1990-2000

\*\*\*2000 total here will exceed total population as those persons marking more than one race are counted in each race category they marked.

Source: SEMCOG

The majority of Oakland County residents are white, 83 percent. The black population has increased to 10 percent between 1990 and 2000. Also, the Asian population increased by 2 percent for a total of 4 percent. The new category, multi-racial, was included on the 2000 census. It accounts for 2 percent of the population in the county.

# Income

Income in the Surrounding Area of Pontiac Lake Recreation Area					
Geographic Area	Median Income	Households in Poverty	Total Households		
Oakland County	\$61,907	25,607 (5%)	471,115		
Southeast Michigan*	\$49,979	183,181 (10%)	1,845,218		
White Lake Township	\$65,894	293 (8%)	10,092		
Source: SEMCOG (2000 Census) *SEMCOG's 7-county region (Oakland, Wayne, Macomb, Livingston, Washtenaw, St.					

Clair, Monroe Counties)

Oakland County is a wealthy county in the metro Detroit Area. Its median income is over \$10,000 more than the Southeast Michigan region. Its poverty rate is half that of the rest of the region. White Lake Township, has a much higher than average median income that is over \$15,000 more than the rest of the region. The level of income in this area affects the lifestyles of people that visit the park and their type of recreational interests.

# **Employment**

Top Four Employers in Oakland County					
Firm	Location	Employees	Product		
Chrysler Technology Center	Auburn Hills	7,000	Minivan, sm & lg car eng & prd		
General Motors Corp	Lake Orion	4,600	Automobile assembling		
General Motors Corp	Pontiac	4,000	Truck assembly		
General Motors Corp	Milford	4,000	Testing, research & dvlpt: autos		

Source: Michigan Economic Growth Corporation (1998 data) www.medc.michigan.org

Manufacturing jobs continue to be lost in southeast Michigan. In January 2006, Ford Motor Co. announced that it will close its Wixom assembly plant. This will mean the loss of 3,700 jobs to the immediate area of PLRA. Additional job losses will change the demographics of this area.

#### **Employment by Industrial Class in Oakland County**

1990	2000	2030 Forecast
8,397 (1%)	9,565 (1%)	11,625 (1%)
116,987 (17%)	131,353 (14%)	119,175 (11%)
30,089 (4%)	32,793 (4%)	37,723 (3%)
46,746 (7%)	62,864 (7%)	71,940 (7%)
130,230 (19%)	150,971 (17%)	184,394 (17%)
70,704 (10%)	98,237 (11%)	104,053 (10%)
268,006 (39%)	407,625 (45%)	535,892 (49%)
9,878 (1%)	16,955 (2%)	22,597 (2%)
681,037	910,363	1,087,399
	8,397 (1%)         116,987 (17%)         30,089 (4%)         46,746 (7%)         130,230 (19%)         70,704 (10%)         268,006 (39%)         9,878 (1%)	8,397 (1%)         9,565 (1%)           116,987 (17%)         131,353 (14%)           30,089 (4%)         32,793 (4%)           46,746 (7%)         62,864 (7%)           130,230 (19%)         150,971 (17%)           70,704 (10%)         98,237 (11%)           268,006 (39%)         407,625 (45%)           9,878 (1%)         16,955 (2%)

Source: SEMCOG

A decrease in agriculture and manufacturing are the biggest trends in employment for Oakland County. Also, there is an increase in service related employment. The service category includes both skilled and unskilled workers. For example, unskilled

food preparation workers are included in this category as well as skilled health care workers.

# **Household Size**

Household Size in Pontiac Lake Recreation Area's Surrounding Area					
	1990 Census	2000 Census	Jan. 2006 SEMCOG	2030 Forecast	
White Lake Township	2.87	2.77	2.7	2.5	
Southeast Michigan*	2.66	2.58	2.52	2.35	
Oakland County	2.61	2.51	2.44	2.26	
Source: SEMCOG	Source: SEMCOG *Southeast Michigan includes SEMCOG's 7-county region—Oakland, Macomb, St. Clair, Monroe,				

\*Southeast Michigan includes SEMCOG's 7-county region—Oakland, Macomb, St. Clair, Monroe, Livingston, Washtenaw, and Wayne counties.

Another trend taking place throughout the country is the shrinking household size. Despite the fact that the total number of households continues to increase, the size of them decreases. This has been attributed to many things: divorce, couples deciding to wait to have children, alternative families, two-income families, people living longer, and today's economy, which may affect the number of workers that are necessary to fill today's jobs. For example, an agricultural economy requires families to have many children to help on the farm. The manufacturing economy of the 20<sup>th</sup> century required many workers to do labor-intensive work. The information-based economy of today requires less workers overall, but highly skilled ones. As these changes have taken place, the family size has continued to decrease and is predicted to continue to do so.

#### Recreational Land Use in Oakland County (1990-2000)

1990 acres	2000 acres	Change	Pct Change
681.2	685.9	4.7	0.70%
15,582.80	20,432.00	4,849.30	31.10%
1,614.70	1,668.80	54.2	3.40%
	681.2 15,582.80	681.2685.915,582.8020,432.00	681.2         685.9         4.7           15,582.80         20,432.00         4,849.30

Source: SEMCOG

#### Recreational Land Use in Southeast Michigan\* (1990-2000)

Cultural, Outdoor Recreation, and Cemetery	1990	2000	Change	Pct Change
Public Assembly/Cultural or Sport Facility	1,358.30	1,351.50	-6.8	-0.50%
Outdoor Recreation	53,716.40	67,611.60	13,895.20	25.90%
Cemetery	6,013.90	6,177.40	163.5	2.70%

Source: SEMCOG

\*Southeast Michigan includes SEMCOG's 7-county area—Macomb, Oakland, Wayne, Washtenaw, Livingston, Monroe, and St. Clair counties.

Between 1990 and 2000, there was a 31 percent increase in land used for outdoor recreation in Oakland County. In southeast Michigan the increase in outdoor recreation land was 25.90 percent. It is helpful to compare the amount of land being developed for other uses with the amount of land set aside for outdoor recreation. The category outdoor recreation, according to SEMCOG, is determined by aerial photography, not by property ownership. The outdoor recreational use most often discerned by aerial photography is that of a golf course. This means that there has likely been an increase in the number of golf courses in Oakland County, rather than passive recreation land.

# Establishment of Pontiac Lake Recreation Area

The original master plan for PLRA called for the acquisition of 4,062 acres. Pontiac Lake Recreation Area is now approximately 3,438 acres. PLRA was officially designated as part of the state park system in 1944. Original lands were acquired through funds made available by a special session of the state legislature in the 1944. The original land was mainly farm parcels and woodland. Other parcels were tax reverted properties. PLRA originally included 3,247 acres.

#### <u>History</u>

The history of state parks in Michigan mirrors that of the U.S. Department of Interior's National Park Service. As the country has developed so have its parks. Over time, the agencies charged with overseeing the park system have developed according to public needs, administrative efficiency, and political climate. The parks movement has been closely related to the growth of cities and the growth of railroads and highways.

The National Park system was created in 1872, when Yellowstone National Park was placed under the jurisdiction of the U.S. Department of the Interior. This marked the first time that the federal government acted to preserve a large area of land as a park. The growing preservation movement sought to preserve cultural landmarks, national monuments, as well as to preserve nature and promote tourism. The National Park Service was officially designated in 1916 as a part of the Department of the Interior.

Many states, including Michigan, followed this trend. In 1915, Michigan authorized a newly-created Public Domain Commission to accept gifts, grants, and devises of real property to be used for park purposes. One of the first purchases was a 200 acre stand of virgin pine near Interlochen.

Act 218 of 1919 established the Michigan State Park Commission. The commission was created to establish a comprehensive statewide system of parks, rather than a few scattered ones. Act 17 of 1921 created the Department of Conservation, overseen by the Michigan Conservation Commission. The Department of Conservation was designated as the single state agency to administer and plan the park system. There were 23 parks in 1921 when the Department of Conservation succeeded the Michigan State Park Commission. Between 1921 and 1956, the state park system grew to a total of 73 parks and recreation areas, totaling 176,991 acres.

Between 1927 and 1931, the Department of Conservation began a survey of the entire Southeast Michigan area, a radius of approximately 35 to 65 miles of downtown Detroit. Their goal was to determine the possibilities of acquiring land for parks and recreation purposes. Again in 1941, the Department of Conservation surveyed land in Southeast Michigan. In general, the plan proposed to acquire 100,000 acres of land in Southeast Michigan, divide into 16 different areas, including Waterloo, Pinckney, Brighton, Island Lake, Highland, Proud Lake, Pontiac Lake, Holly, Ortonville, Metamora, Bald Mountain, and Rochester-Utica Recreation Areas. A special session of the Legislature in 1944 appropriated \$4,000,000 to begin acquisition of lands. The Conservation Commission added \$600,000 from the Game Protection Fund. The Regular Session of 1945 appropriated \$1,000,000 for development in all state parks, a majority of which was spent in Southeast Michigan parks. The Special Session of 1946 appropriated \$750,000 for further parks development. In addition, the Michigan United Conservation Clubs (MUCC) pressed the Michigan state legislators to preserve farms, fields, wetlands, and woodlands around southeast Michigan by establishing state recreation areas. The land was acquired by various means over a long period of time. Some of the property was taxreverted property. Other property was purchased through the Pittman-Robertson Fund, a fund established by hunters, which paid for the acquisition of certain lands to be set aside as public hunting property or as a shooting range.

The Department of Conservation officially defined state park policy in 1954.<sup>2</sup> This policy created different classes of park lands, state parks, state recreation areas, and historic sites. State recreation areas were defined as large areas convenient to centers of dense population, with a diversity of natural features and impressive natural beauty. They are suitable for many types of intensive and extensive recreation, including swimming, picnicking, camping, group camping, boating, fishing, hiking, horseback riding, nature study, enjoyment of scenery, and even hunting.

Most state parks are centered around a dominant feature or a limited number of attractions. State Recreation Areas are not. They are diverse.

# Time Line of Events at Pontiac Lake State Recreation Area

1921	A land survey is undertaken by the Department of Conservation of potential recreational land in Southeast Michigan
1927	A dam is installed between Oxbow and Pontiac Lakes
1941	Continuation of land survey begun in 1921
1944	Pontiac Lake Recreation Area is created from tax reverted lands, land exchange, and purchase through Wildlife-Park funds.
1945	\$250,000 is allocated by the Parks & Recreation Commission for Improvements to PLRA
1948	A beach is opened on Pontiac Lake within PLRA. It is the largest inland bathing beach in Oakland County <sup>3</sup>
1950	Public Act 194 of 1939 establishes a legal lake level for Pontiac Lake

<sup>&</sup>lt;sup>2</sup> Michigan Department of Conservation. State Parks of Michigan: A Report of the Past, A Look to the Future. 1957

<sup>&</sup>lt;sup>3</sup> Pontiac Daily Press. "State's Largest Lake Beach to Open in County May 22". May 15, 1948

- 1959 This is the last year of active mining by the Foley & Beardslee Gravel Company, which leaves behind large gravel pits off of White Lake Road
- 1962 MDNR purchases Kandahar ski club, a 170 site, which is currently located in the modern campground.
- 1964 Horse riding stables are opened at PLRA. The stables housed 25 horses.<sup>4</sup>
- 1969 DNR Parks and Recreation Division produces a Preliminary Proposal to a new Pontiac Lake master plan. It proposes:
  - stopping public access to Maceday Road
  - creating an outdoor center on the land west of Teggerdine Road
  - creating a 25 site equestrian campground
  - moving the campground from the waterfront
  - converting the rustic campground on the south side of Pontiac Lake to a picnic area
- 1974 PLRA establishes an ORV area in the northeast section of the park by the gravel pits
- 1976 The DNR completes an environmental assessment for the purpose of acquiring all inholdings from private landowners, approximately 314 acres of land. The land acquisition facilitates the developments outlined in a new master plan. These developments include: a trail bike area, a horsemen's campground, an organizational campground, Fair Lake Picnic and fishing site, Foley Lake fishing area, an interpretive area around Robinson Lake, a winter use area, and miscellaneous facilities.
- 1978 DNR creates a master plan for PLRA that outlined the development of a modern campground and a new horse staging area. Also, ORVs are banned from use at the park.
- 1983 Michigan State University students draft a plan for PLRA. The plan, originally intended as a plan to generate revenue for the park, offers important historical background including dates and prices of land acquisitions to the park.<sup>5</sup>
- 2000 Hydroplane races are held for the first time at PLRA.
- 2001 Oakland County International Airport purchases approximately 58 acres of PLRA for a future runway expansion. The runway expansion includes a reconfiguration of Williams Lake Road.

<sup>&</sup>lt;sup>4</sup> Pontiac Daily Press. "Stables to Open Saturday". May 21, 1964

<sup>&</sup>lt;sup>5</sup> Michigan State University Parks & Recreation Students. *Pontiac Lake Recreation Area Plan.* 1983

- 2003 DNR places a restrictive covenant on a small parcel within PLRA. The parcel is the site of a former dumpsite. In 2001, DNR contracts consultants who study the soil and groundwater. The studies find that it contains materials that could be harmful to soil and groundwater. A deed restriction is placed on the parcel, which states that the land be used for recreational purposes, that it will not result in exposure to hazardous substances, and that there will be no intrusive soil activities at the site.
- 2005 DNR undertakes management planning at PLRA. The planning team creates draft versions of management zones.
- 2006 The Williams Lake Road reconfiguration is completed

Pontiac Lake Beach (1964)



Pontiac Lake Day Use Area (1969)



#### Land Acquisition

Acquiring land for public use requires unique funding sources. Below is a list of these sources and their uses. The image to follow identifies individual parcels within Pontiac Lake Recreation Area, and the funding source used to acquire them.

#### Special Legislation

It is utilized for general program purposes.

#### Michigan Natural Resources Trust Fund (MNRTF)

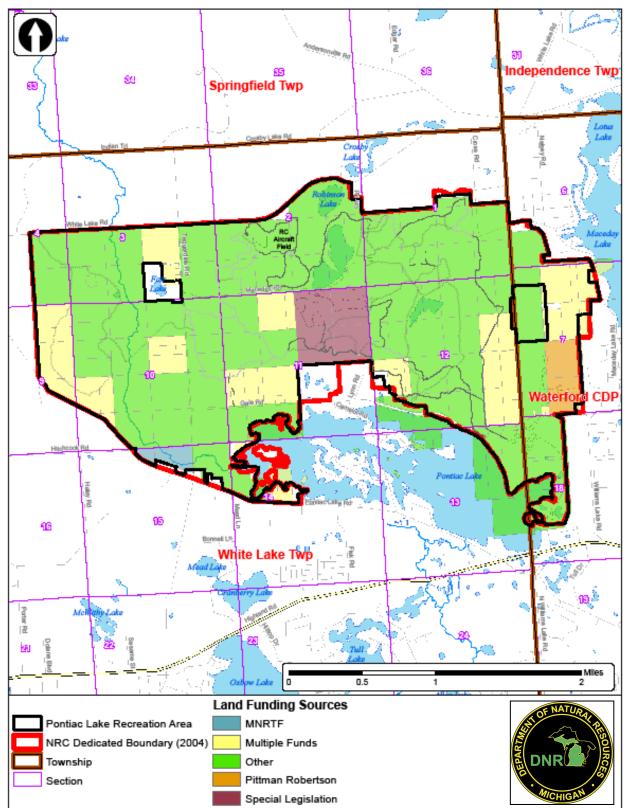
The trust fund was established in 1976 to provide a source of funding for public acquisition of lands for resource protection and public outdoor recreation. Funding is derived from royalties on the sale and lease of state-owned mineral rights. It is utilized for general program purposes.

#### State Game and Fish Protection Trust Fund

The Game and Fish Protection Trust Fund was created under the provisions of Public Act 73 of 1986. The Game and Fish Protection Fund provides revenues for the operation of the DNR's Fish, Wildlife, and Law Enforcement programs in the Department. Management, research, enforcement of fishing and hunting laws and acquisition of lands to be used for hunting and fishing purposes are examples of uses of this fund.

#### Pittman-Robertson Fund

The program was designed for wildlife restoration and hunter education and may be used for range development programs. The intent of the act is to conserve and manage wild birds and mammals, and to enhance the safety, marksmanship and sportsmanship with firearms and bows and arrows. Therefore, in 1937 Congress enacted specific legislation to provide funds to states to carry out these programs. By law, (16 USCA 669a-i) the Interior Department is authorized to cooperate with the various states in wildlife restoration projects and hunter education, provided that the various states assent to the Federal provisions and pass laws for the conservation of wildlife, which will include a prohibition against the diversion of license fees paid by hunters for any purpose other than the administration of the State Fish and Game Department. (Sec. 669).

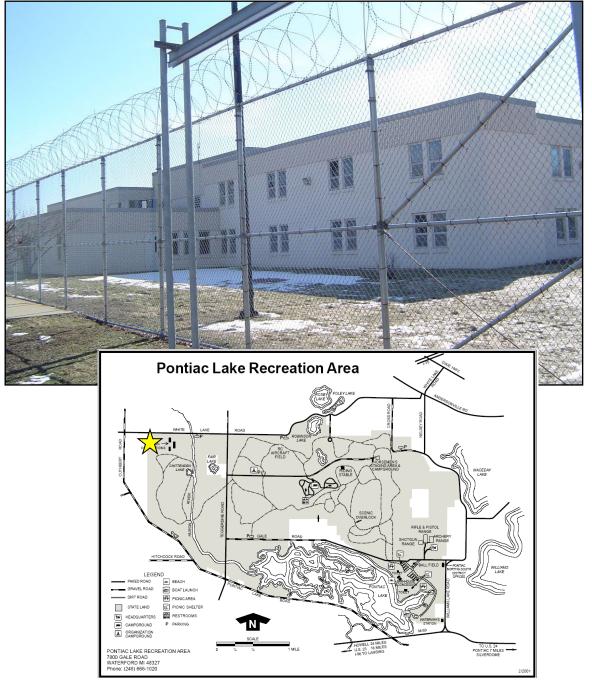


# Funding Sources for Pontiac Lake State Recreation Area

July 7, 2010

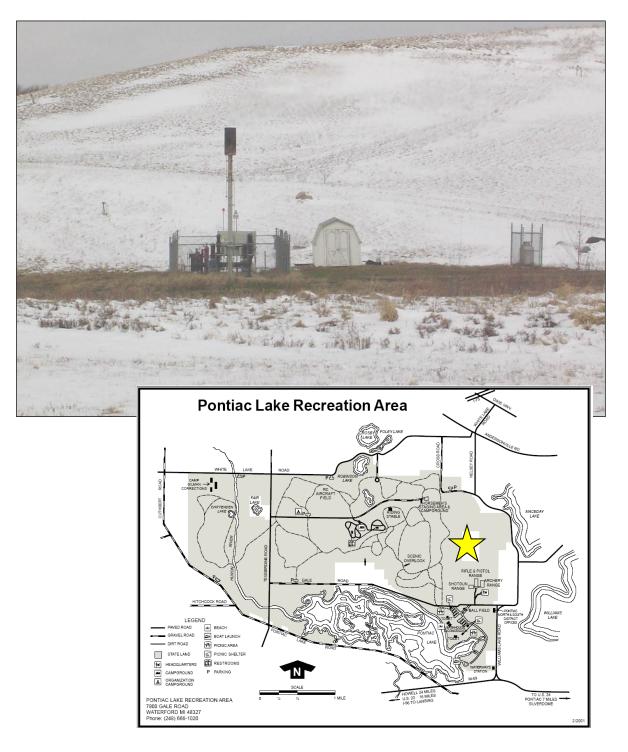
# Private In-Holdings

There are two in-holdings within PLRA. One is a former prison, owned by the State of Michigan, Department of Corrections, and is to be turned over to the DNR. The prison operated for approximately 10 years and is currently unoccupied. There are several buildings on the site that are closed off to the public by fencing.



Michigan Department of Corrections Gilman Center on White Lake Road

The other in-holding is a landfill, which is currently unused. It is completely fenced off from the park. It has many vents installed to release methane gas from the landfill.



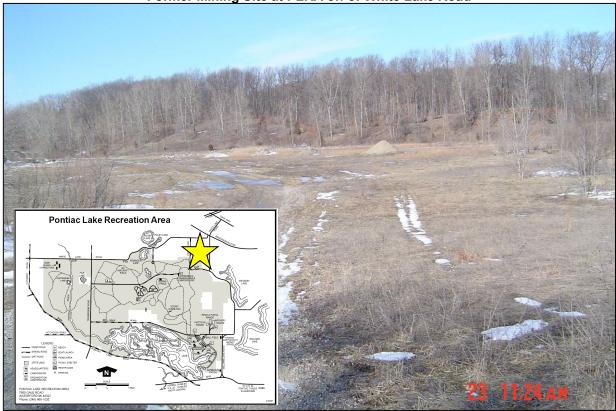
Landfill at PLRA

# <u>Mining</u>

The area north of the shooting range and park headquarters has been mined extensively, primarily by the former Foley Beardslee Mining Company, who owned the land until 1959. There are significant amounts of sand and gravel, deposited by glaciers from the last Ice Age. White Lake Township is underlain by a geologic formation known as Coldwater Shales. The shale of this formation is of value for the manufacturers of cement, brick and tile.

It is possible to receive future offers to purchase mining rights within PLRA. However, it is the responsibility of Parks and Recreation Division, under the requirements of Act 218 of Public Acts of 1919, to regulate the use of state parks and recreation areas to conserve the scenery, the natural and historic features and the wildlife found thereon and to provide for the enjoyment of these features and aspects by the people of the state in such a way to assure preservation for the enjoyment of future generations. In order to carry out this responsibility, the following policy will govern mineral and timber resources:

The quantities of mineral resources held in state park and recreation area lands are insignificant to the state and national economy and therefore, under no circumstance will they be exploited or mined for commercial purposes. In special cases, it may be advantageous to use gravel, sand, topsoil, or sod for park development or maintenance. This should be done only when it is definitely determined that such removal will not destroy or damage the natural or scenic features of the area.



#### Former Mining Site at PLRA off of White Lake Road

# Management of Adjacent Lands

#### RESIDENTIAL

PLRA neighbors mostly residential land and other park land (Indian Springs Metropark). The residential areas around Pontiac Lake are characterized as single-family residential, or *residential resort*, by White Lake Township's Future Land Use Plan. Most residential land north of M-59 is not suitable for sewer connection. Therefore, it reflects mostly low density development. The biggest issue regarding residential neighbors is the use of state park land for their own purposes. Often these residents create their own paths within the park leading to their own lot. Others who own neighboring property have mowed sections of state property in order to launch boats.

# OAKLAND COUNTY

In 2003, there Oakland County expressed interest in purchasing parts of PLRA. This has several implications, one of which would be to allow the Oakland County Airport to expand further. It may reduce the amount of land available for hunting since Oakland County parks do not allow it. Many county parks contain golf courses, which can destroy habitat through chemical runoff.

Oakland County is very aggressive in its efforts to develop linear parks. In particular, it has formulated plans for a county-wide network of *green infrastructure*. Green infrastructure is a concept that refers to linking open spaces by corridors that provide protection to natural as well as recreation areas for residents. Implementation of this concept will include future acquisition of land by Oakland County, private land trusts, as well as the granting of easements by private owners of land.

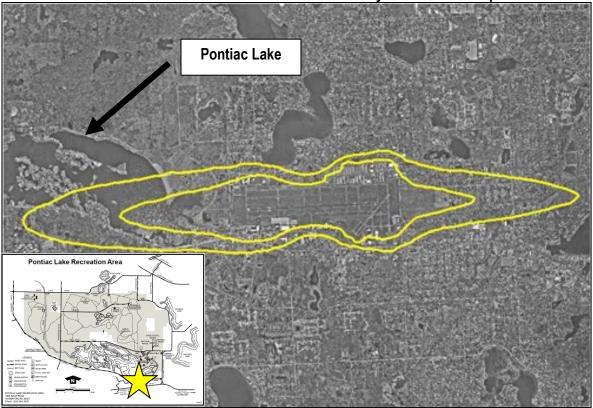
# MICHIGAN LAND USE LEADERSHIP COUNCIL

In 2003, Governor Granholm formed the Michigan Land Use Leadership Council to study and make recommendations about land use in Michigan. The council's report makes several recommendations that affect PLRA. It recommends protection of headwater areas, incentives to build trailways, supplements to the Michigan Natural Resource Trust Fund, and several other recommendations regarding natural resource industries, including forestry, agriculture, mining, and tourism.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Michigan Land Use Leadership Council. Final Report of the Michigan Land Use Leadership Council. 2003

# AIRPORT

PLRA borders Oakland County International Airport (OCIA) to the east. The airport affects the area in several ways—limits the height of buildings, increases traffic, affects the location of residential properties. The airport opened in 1928 and is Michigan's second busiest airport based on take-offs and landings. It is the 27<sup>th</sup> busiest airport in the nation. The airport has a noise abatement program, which consists of a set of standards for pilots.<sup>7</sup> A buffer zone has been established around the airport. Pilots are to observe noise abatement standards within this zone. A portion of PLRA falls within the zone. Most of it does not. Therefore, PLRA may be a desirable flight path for pilots wishing to bypass the nearby residential zones, which fall within the buffer. In addition, OCIA recently expanded their runways to the west, purchasing approximately 58 acres of PLRA. The expansion involved realigning a portion of Williams Lake Road also.





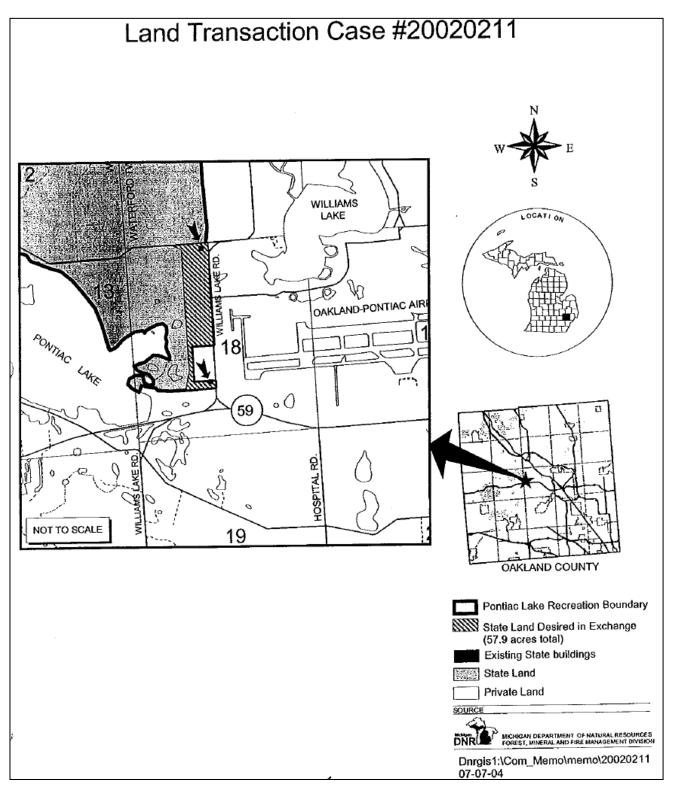
Source: Oakland County International Airport. http://www.oakgov.com/aviation/

Also, the airport has rights to airspace above PLRA. Airspace surrounding the airport is classified as Class D airspace. Generally, Class D airspace consists of the immediate airspace within a horizontal radius of five miles from the geographic center of the airport. The airspace extends from the surface up to 2,500 feet above ground level.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup> Oakland County International Airport website. <u>http://www.oakgov.com/aviation/</u>

<sup>&</sup>lt;sup>8</sup> Oakland County International Airport. FAR Part 150 Noise Exposure & Land Use Compatibility Program. 1999

The Williams Lake Road realignment occurred after a land transaction. Land within the recreation area west of the originally located road was transferred. The road was then realigned along the new recreation area boundary.



# Relationship of Pontiac Lake RA to Other Recreation Resources

Pontiac Lake Recreation Area is situated in an area near abundant park land. This section describes those park lands that are located within this region, including state, regional, and county parks.

#### State Parks and Recreation Areas

There are approximately 19 state parks and recreation areas totaling approximately 78,765 acres within a 60 mile radius of Pontiac Lake Recreation Area. In Oakland County, there are approximately 31,000 acres of state park land.

State Parks and Recreation Areas within 60 Miles of PLRA						
Park	Туре	County	Acres			
Sleepy Hollow	State Park	Clinton	2,678			
Waterloo	State Recreation Area	Jackson, Washtenaw	20,500			
Metamora-Hadley	State Recreation Area	Lapeer	723			
Island Lake	State Recreation Area	Livingston, Oakland	4,000			
Brighton	State Recreation Area	Livingston	4,947			
Pinckney	State Recreation Area	Livingston, Washtenaw	11,000			
Wetzel	State Park	Macomb	900			
Sterling	State Park	Monroe	1,000			
Bloomer	State Park 4	Oakland	28			
Dodge No. 4	State Park	Oakland	139			
Maybury	State Park	Wayne	944			
Proud Lake	State Recreation Area	Oakland	4,700			
Holly	State Park	Oakland	7,817			
Seven Lakes	State Park	Oakland	1,434			
Bald Mountain	State Recreation Area	Oakland	4,637			
Ortonville Recreation Area	State Recreation Area	Oakland	5,400			
Highland	State Recreation Area	Oakland	5,903			
Lakeport	State Park	St. Clair	565			
Algonac	State Park	St. Clair	1,450			
TOTAL			78,765			

# State Parks and Recreation Areas within 60 Miles of PLRA

# Oakland County Parks

There are 11 major parks within Oakland County. There are also 54 golf courses. These parks offer multiple recreational opportunities such as golf, tennis, athletic fields, picnicking, mountain biking, and a water park.

Park	Туре	Municipality	Acres
Addison Oaks	multi-use	Addison Township	794
Glen Oaks	golf	Farmington Hills	N.A.
Groveland Oaks	multi-use	Holly Township	360
Independence Oaks	multi-use	Clarkston	1,088
Lyon Oaks	multi-use, golf	Lyon Township	1,024
Orion Oaks	multi-use	Orion Township	27
Red Oaks	water park	Madison Heights	N.A.
Rose Oaks	undeveloped	Rose Township	620
Springfield Oaks	golf	Davisburg	N.A.
Waterford Oaks	multi-use	Waterford Township	145
White Lake Oaks	golf	White Lake Township	N.A.

# **Oakland County Parks**

#### Huron/Clinton Metropolitan Authority Parks (HCMA)

There are also 13 Metro Parks in the southeast Michigan region, totaling 23,844 acres. They are managed by the Huron-Clinton Metropolitan Authority, which is funded by a tax paid for by residents of the five-county metro Detroit area, including: Wayne, Oakland, Macomb, Washtenaw, and Livingston Counties. These parks contain many natural areas, and offer multiple recreational opportunities such as mountain biking, athletic fields, boating, fishing, golfing, and horseback riding. The only camping provided at HCMA parks is for family group camps.

#### **Huron-Clinton Metro Parks**

Name	Acres
Delhi	53
Dexter-Huron	122
Hudson Mills	1,549
Huron Meadows	1,540
Indian Springs	2,215
Kensington	4,357
Lake Erie	1,607
Lower Huron	1,258
Metro Beach	770
Oakwoods	1,756
Stoney Creek	4,461
Willow	1,531
Wolcott Mill	2,625
Total	23,844

# **Natural Resources**

#### Environmental Protection

PLRA contains wildlife and natural areas that need to be protected. There are sections of Mesic and Southern Mesic Forest within the park. This type of forest is considered unique in this part of the country. Sections of these forests should be protected from uses that could degrade it. Also, sections of the park are near the Huron River, around which forms an important riparian corridor. In addition, the wet environments such as bogs, marshes, and wetlands are vitally important to the water resources of the entire area and are worthy of protection.

There are also several listed species, as determined by Michigan Natural Features Inventory (MNFI). PLRA contains threatened species such as the red-shouldered hawk as well as threatened plant species such as goldenseal, showy orchids, ginseng, and hairy angelica. It is important to support these species of plants and wildlife. There are many other species that fall under the *special concern* designation. This designation indicates that they are likely to be added to the list of threatened species.

#### Michigan Natural Features Inventory

Michigan Natural Features Inventory (MNFI) is an effort by Michigan Department of Natural Resources and Michigan State University Extension to survey and inventory significant natural features in state parks and recreation areas.<sup>9</sup> MNFI reports provide the majority of information on natural features within this report.

MNFI reports frequently point out the *Endangered* (E) and *Threatened* (T) plant species of Michigan, which are protected under the Endangered Species Act of the State of Michigan (Part 365 of PA 451, 1994 Michigan Natural Resources and Environmental Protection Act). Also included in many MNFI reports are plant species of *Special Concern* (SC). While not afforded legal protection under the Act, many of these species are of concern because of declining or relict populations in the state. Should these species continue to decline, they would be recommended for *Threatened* or *Endangered* status. Protection of *Special Concern* species now, before they reach dangerously low population levels, would prevent the need to list them in the future by maintaining adequate numbers of self-sustaining populations within Michigan. Some other potentially rare species are listed as of Special Concern pending more precise information on their status in the state; when such information becomes available, they could be moved to threatened or endangered status or deleted from the list.

In addition, MNFI reports detail the *Endangered* (E), *Threatened* (T), and *Probably Extirpated* (X) animal species of Michigan, which are protected under the Endangered Species Act of the State of Michigan (Part 365 of PA 451, 1994 Michigan Natural Resources and Environmental Protection Act). As with plant species, included in this list are animal species of *Special Concern* (SC), which are afforded special attention.

<sup>&</sup>lt;sup>9</sup> Michigan Natural Features Inventory. <u>Michigan Natural Features Inventory (msu.edu)</u>

# Historic Land Cover

MNFI reports that before European settlement of the area, the northeastern two-thirds of the park area were dominated by oak barrens. In particular, black and white oaks were the dominant tree species, while native grasses such as big and little bluestem as well as Pennsylvania sedge were found throughout the oaks. Oak-hickory forest covered much of the park to the southwest. This consisted mainly of black and white oak, red maple, shagbark, and pignut hickory. In the Huron River corridor, mixed hardwood swamps and floodplain forests of silver and red maple and green and black ash were found. In the Robinson Lake region there was a large mixed conifer swamp of cedar, tamarack, and black ash. The glacial depressions are mainly vernal pools, small ponds, and kettle hole bogs.



#### **Vegetation**

Much of Pontiac Lake Recreation Area has been modified due to logging, agriculture, and recreational development. The historical oak barrens are dominated by black and white oaks and red maple. Red oaks can be found near the bases of steep hills, while beech and sugar maple occur in deep valleys. Also, pignut, shagbark, bitternut hickories, sassafras, white ash, basswood, black cherry, and both quaking and large tooth aspen can be found throughout PLRA. Other parts of the historic oak savanna consist of old fields in various stages of succession. They contain exotic species such

as brome grass and spotted knapweed. There are occurrences of big and little bluestem and other native prairie forbs, including two listed species, compass plant (Silphium laciniatum), which is threatened, and white false indigo (Baptisia Lactea), which is of special concern.

Ponds and vernal pools are typically surrounded by southern swamp species such as red maple, black ash, Michigan holly, skunk cabbage, and various sedges. The Huron River corridor remains relatively intact. It is a diverse wetland dominated by silver maple, black ash, red maple, musclewood, spicebush, and American elm. The



groundcover consists of mosses, ferns, horsetails, sedges, grasses, swamp-loving herbs such as marsh-marigold, Jackin-the-pulpit, and starflower.

There are two sections of southern mesic forest that have been documented by MNFI. The first section is 150 acres of dry southern forest southwest of Fair Lake and east of Teggerdine Road. It consists mostly of black and white oaks, flowering dogwood and maple-leaved viburnum. There are also two islands of mesic southern forest within the southern swamp west of Teggerdine Road. They consist mainly of beech, sugar maple, and red oak.

Natural Feature	Species	Common Name	Status
Prairie Grass	Silphium laciniatum	Compass plant	Threatened
Prairie Grass	Baptisia Lactea	White false indigo	Special concern
Dry-mesic southern forest			
Mesic southern forest			

Natural Features Documented at Pontiac Lake Recreation Area

Source: MNFI<sup>10</sup>

#### **Invasive Species**

Invasive species have affected PLRA. The Federal Executive Order on Invasive Species defines an invasive species as "an alien species (plant, animal, insect, bacteria, and fungi) whose introduction does or is likely to cause economic or environmental harm or harm to human health". In turn, an alien species is defined with respect to a particular ecosystem and is considered any species "that is not native to that ecosystem" (Executive Order 13112, 1999). Alien species are also known as exotic, non-native, or introduced, however the term alien also applies to native species outside their natural range or ecological boundaries. The terms noxious, nuisance, or invasive characterize alien species when these organisms cause harm.



Emerald Ash Borer (EAB) is an exotic, aggressive beetle that has already been responsible for the death of approximately 15 million of Michigan's 700 million ash trees since it was discovered in 2002. All of the counties of the Lower Peninsula of Michigan fall within the state's quarantine area. There is to be no movement of wood out of these counties. Also, it has been necessary in some cases to eradicate ash trees to prevent a large outbreak of EAB. This may have future implications at PLRA.



Purple Loosetrife is another invasive species that can be found throughout Oakland County wetlands. Purple loosestrife (Lythrum salicaria) is a perennial plant native to Europe and Asia which has become widely established in the US and Canada. It grows and reproduces prolifically in wetlands and other moist habitats. Each mature 4-7 foot tall plant produces 30 or more beautiful purple flower spikes that bloom in late summer and can produce over 2.5 million seeds per year. Once it becomes established, purple loosestrife frequently becomes the dominant vegetation by out-competing native plants. As native plant communities are reduced, so too are wildlife species that depend on them. Declines in ducks, geese and other wetland birds as well as muskrats, mink and some amphibians have all been noted. There is also concern that purple loosestrife may reduce spawning habitat for some fish. Recently, there have been successful attempts to eradicate purple loosestrife with the release of three species of plant feeding beetles, Galerucella calmariensis, Galerucella pusilla and Hylobius transversovittatus.

<sup>&</sup>lt;sup>10</sup> MNFI. Pontiac Lake Recreation Area Natural Features Inventory and Management Recommendations, May 2001



Garlic mustard is an exotic invasive plant from Europe that invades woodland habitats in North America and impacts forest biodiversity. In some woodlands, dense stands of garlic mustard in the spring threaten showy spring blooming ephemerals like spring beauty, trilliums and trout lilies. Other research points toward potentially negative impacts on timber species and forest health. Many land managers consider it to be one of the most potentially harmful and difficult to control invasive plants in the region. It readily invades

forested habitats where it can displace native plants, compete with timber species regeneration, alter soil composition and structure, impact natural associations between plants and fungi, and result in cascading ecosystem impacts.



The Gypsy moth is another invasive species affecting the entire state. It can be found throughout both peninsulas. Michigan Department of Agriculture have been following a policy of containment of the Gypsy Moth. During high population levels, total defoliation can occur. During the months of June and July, defoliating populations cover sidewalks, homes, children's play

equipment and other objects making outdoor activity in residential and recreational areas almost impossible. Existence of Gypsy moths may mean expense and pesticide use to eliminate egg masses from plant material slated to go into areas without gypsy moth.

# <u>Wildlife</u>

Rabbits, squirrel, grouse, woodcock, ducks, geese, raccoon and deer are common in the park. Also, a variety of amphibians such as turtles and frogs are found there. Possum, skunk, fox, coyote, bats, mink, muskrat, wild turkey, hawks, owls, and a variety of migratory songbirds are seen there too. Many of the neo-tropical forest species are areasensitive forest species such as the wood thrush (*Hylocichla mustelina*), acadian flycatcher (*Empidonax virescens*), scarlet tanager (*Piranga olivacea*), and rose-breasted grosbeak



(*Pheucticus ludovicianus*). So far there have been no observations of listed animal species at PLRA, but its mixture of upland and wetland habitats makes it suitable for a diversity of species, including rare species of birds, snakes, mammals, plants, and amphibians.

Scientific Name	Common Name	Species	Status
Dendroica cerulean	Forest interior cerulean warbler <sup>11</sup>	Bird	SC
Buteo lineatus	Red-shouldered hawk	Bird	T
Sistrurus catenatus catenatus	Eastern massasauga	Snake	SC
Protonotaria citrea	Prothonotary warbler	Bird	SC
Accipiter cooperii	Cooper's hawk	Bird	SC
Nerodia erythrogaster neglecta	Copperbelly water snake	Snake	LT, E
Propsapia ignipectus	Red-legged spittlebug	Insect	SC
Oecanthus larici	Tamarack tree cricket	Insect	SC
Microtus pinetorum	Woodland vole	Mammal	SC
Ammodramus savannarum	Grasshopper sparrow	Bird	SC
Pooeecetes gramineus	Vesper sparrow	Bird	SC
Passerculus sandwichensis	Savanna sparrow	Bird	
Hydrastis Canadensis	Goldenseal	Plant	T
Jeffersonia diphylla	Twinleaf	Plant	SC
Galearis spectabilis	Showy orchis	Plant	Т
Panax quinquefolium	Ginseng	Plant	Т
Angelica venenosa	Hairy angelica	Plant	Т

#### Listed Species that May be at Pontiac Lake Recreation Area

Source: MNFI

Status: E – State listed Endangered, T - State listed Threatened, SC - Special Concern

#### Aquatic Resources

There is one lake at PLRA, Pontiac Lake, as well as two marshes. The largest marsh is known as Robinson Lake. The Huron River flows west from Pontiac Lake and north through the park. Pontiac Lake is an actual lake, while Robinson Lake remains a wetland.

(Endangered, Threatened, Opecial Concern)			
Species	Common Name	Year	Status
Eyrnnis baptisia	Wild Indigo Duskywing	2000	SC
Panax quinquefolia	Ginseng	1997	Т
Hydrastis canadensis	Goldenseal	1997	Т
Jeffersonia diphylla	Twinleaf	1997	SC
Sistrurus catenatus catenatus	Eastern Massasauga	1995	SC
Oecanthus lacris	Tamarack Tree Cricket	2000	SC
Acris crepitans blanchardii	Blanchard's Cricket Frog	1997	SC
Alasmidonta viridis	Slippershell	1996	SC
Source: MNFI			

Species of Concern Found within Pontiac Lake Recreation Area
(Endangered, Threatened, Special Concern)

#### Huron River

At PLRA, the Huron River is much narrower and has more cobble and gravel than at either of other two state recreation areas along the Huron River—Proud Lake Recreation Area and Island Lake Recreation Area. The portion of the Huron River that runs through PLRA is very near to the Huron River headwaters. At PLRA, the river is well protected with a wide riparian buffer on both sides. Recreation area roads are not close to the river and only a few trails even approach the rivers edge. PLRA appears to have the least impacted section of the three recreation areas along the Huron River, due to the lack of access.

#### Species of Fish Observed In Pontiac Lake State Recreation Area (Huron River)

Species	Common Name
Catastomus commersoni	White sucker
Etheostoma flabellare	Fantail darter
Etheostoma nigrum	Johnny darter
Lepomis macrochirus	Bluegill
Micropterus salmoides	Largemouth bass
Perca flavescens	Yellow Perch
Semotilus atromaculatus	Creek Chub
Umbra limi	Mudminnow

Source: MNFI<sup>12</sup>

Mussels were not observed in the Huron River at PLRA. However, the substrate of the Huron River is appropriate for mussels. They were observed at nearby recreation areas—Island Lake and Proud Lake Recreation Areas.

Status: E – State listed Endangered, T - State listed Threatened, SC - Special Concern

<sup>&</sup>lt;sup>12</sup> MNFI. Aquatic Inventory of Three State Recreation Areas: Island Lake, Proud Lake, and Pontiac Lake State Recreation Areas. September 2005

The MNFI offers several management recommendations to promote biodiversity within the aquatic ecosystem at PLRA:

- preserve and establish vegetated riparian buffers;
- take into consideration aquatic needs while conducting park maintenance;
- retain large woody debris in the lakes and Huron River. It provides cover for fish; and
- educate the public through signage.

#### Listed Species that May be Found in the Huron River (within PLRA)

Species	Common name	Status
Alasmidonta marginata	Elktoe	Special concern
Lampsilis fasciola	Wavy-rayed lamp mussel	Threatened
Noturus miurus	Brindled madtom	Special concern
Source: MNFI		



# Invasive Aquatic Resources

The Huron River and some of its surrounding lakes have already been invaded by





zebra mussels and some by the Asiatic clam and round Goby.

# Pontiac Lake

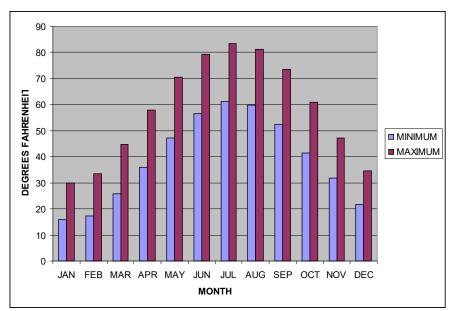
Pontiac Lake is 585 acres in size and up to 34 feet deep. It has numerous islands and peninsulas. The lake bottom is primarily composed of fibrous peat and other organics with some sand. Over 60% of the lake is 5-feet deep or less, while approximately 20% is over 10 feet deep. Aquatic vegetation, including Eurasian milfoil, has been at nuisance levels since the mid-1970s. Pontiac Lake is a man-made impoundment created in 1926 when Lime Lake, a small lake in the upper Huron River watershed, was dammed. The Huron River, a major Lake Erie tributary, begins 6 miles northwest of Pontiac Lake and flows through the lake, entering at the western end and exiting at the dam on the southeastern shore. <sup>13</sup>

Species	Common Name
Esox Lucieus	Northern pike
Ambloplites rupestris	Rock bass
Lepomis gibbosus	pumpkinseed
Lepomis macrochirus	Bluegill
Micropterus salmoides	Largemouth bass
Perca flavescens	Yellow Perch
Pomoxis nigromaculatus	Black crappie
Ameiurus nebulosus	Bullhead
Cyprinus carpio	Carp
Cyprinella spiloptera	Spotfin shiner

# <u>Climate</u>

Pontiac Lake Recreation Area in Oakland County has cold winters and warm summers, typical of southeast Michigan. In January, the average minimum and maximum temperatures are 15 and 30 degrees Fahrenheit. In July, the average minimum and maximum temperatures are 61 and 84 degrees Fahrenheit. Oakland County gets 29 inches of rainfall and 35 inches of snowfall annually. The county has a 163 day growing season. Also, it has an average of 11 days above 90 degrees and 7 days below 0 degrees Fahrenheit.

<sup>&</sup>lt;sup>13</sup> Michigan Department of Natural Resources Status of the Fishery Resource Report 93-8, 1993.



28-Year Summary of Mean Monthly Temperatures for Pontiac, MI

Source: Michigan State's Climatologist's Office

MONTH	AVG. MIN TEMP	AVG. MAX TEMP.
January	15F./-9C.	30F./-1C.
July	61F./16C	84F./29C.
PRECIPITATION	RAINFALL	SNOWFALL
Average Annual	29in./74cm.	35in./89cm.
GROWING SEASON	DAYS ABOVE 90F/32C	DAYS BELOW 0F/- 18C
163	11	7

#### Climate Summary of Oakland County

Source: Source: NOAA Climate Summary, 1995

# Topography

Within the park, elevations vary from approximately 963 feet at Pontiac Lake to 1,150 feet above sea level near the central portion of PLRA. The lowest depressions surround the Huron River and Pontiac Lake. The highest elevations can be found in the central section of the park south of the campground. In addition, a man-made feature, a former landfill reaches 1,132 feet above sea level. This is also the highest point in Waterford Township. At certain points, hills up to 600 feet above Pontiac Lake provide scenic views of the entire area.

# <u>Geology</u>

Pontiac Lake Recreation Area consists mainly of glacial outwash and end moraines.

# <u>Soils</u>

PLRA lies in the Jackson Interlobate region of Michigan, an area created by the existence of three glacial lobes approximately 16,000 years ago. Hilly terrain, steep ridges, and scattered depressions are a result of glacial deposits.<sup>14</sup> Also, there are large deposits of sand and gravel there due to the glacial era. Parts of the park have been mined for sand and gravel. It is possible that mining companies may show an interest in future mining operations.

About 90 percent of PLRA is characterized by "Boyer-Spinks-Oakville" soil association. This type of soil is well-drained and is characterized by sandy soils on gently sloping to steep slopes including numerous lakes on moronic uplands. About 10 percent of PLRA is in "Fox-Miami-Lapeer" soil type. These are well-drained, loamy and gravelly soils on gently sloping and hilly uplands. A small portion of PLRA, particularly in the area immediately surrounding Pontiac Lake, is characterized by "Urban land-Spinks-Oshtemo" soil association. This land is composed of well-drained sandy soil located on nearly level to rolling topography.

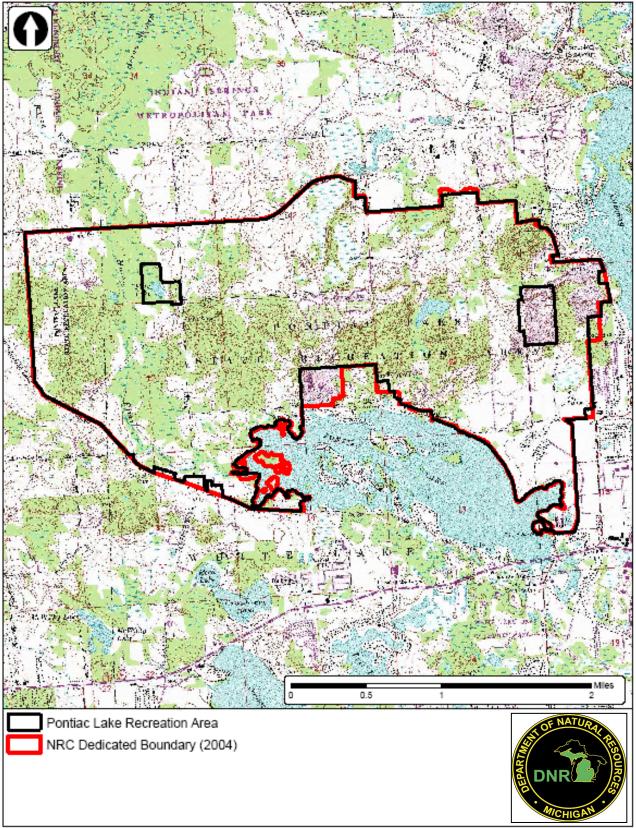
# <u>Floodplains</u>

A floodplain is an area adjoining a lake, stream, river, or pond that receives excess water from occurrences such as rainstorms. A floodplain exists where flooding occurs with frequency and predictability based on natural topography and proximity to a body of water. The areas affected by floodplains are those areas that immediately surround Pontiac Lake and a portion of the Huron River. The majority of the areas in PLRA within the 100 and 500 Year Floodplain are residential areas surrounding Pontiac Lake.

# Groundwater

White Lake Township relies on a system of wells to provide water. There are 11 community wells and over 2,000 individual wells. Most of the township has high or moderate soil permeability. Therefore, it has high groundwater vulnerability. Within

<sup>&</sup>lt;sup>14</sup> Michigan Natural Features Inventory. *Regional Landscape Ecosystems of Michigan, Minnesota, and Wisconsin: A Working Map and Classification* 



July 7, 2010

PLRA, most of the park has high groundwater vulnerability with a small amount having moderate vulnerability. In addition, White Lake Township has a wellhead protection area, which falls partly within PLRA that offers extra restrictions for developing anything in that area. PLRA has wells located in its modern campground.

# <u>Watersheds</u>

A watershed is the land that catches rain or snow and drains or seeps into a common marsh, stream, river, lake, or groundwater. The headwaters of five major drainage areas begin in Oakland County—the Clinton, Huron, Rouge, Flint, and Shiawassee. The majority of PLRA falls within the Huron River Watershed. A small portion of the northeast park of the park lies within the Clinton Watershed. Development around PLRA matters to the resources within the park. For example, a golf course to the north of the park may bring fertilizers through the Huron Watershed.

In 1997, six communities in northwestern Oakland County collaborated on the Shiawassee and Huron Headwaters Resource Preservation Project (S&H Project).<sup>15</sup> Under increasing demand for residential and recreational development, these municipalities contracted the Michigan Natural Features Inventory to conduct and inventory of the area and identify significant natural areas. This report identifies several areas within PLRA of significance—the Huron River Corridor and areas that it refers to as Pontiac Lake Recreation Area West and East. Only the Huron River Corridor received a full inventory and study due to trouble obtaining permission for the study as well as the moderate level of protection already included with state-owned land. The report mentions threats such as the spreads of exotic species, high deer population, high raccoon population, forest fragmentation, and chemical runoff. It also offers several management recommendations:

- Maintain the closed canopy of the southern mesic and southern swamp, as well as portions of the southern dry-mesic forest, to ensure habitat for forest interior species
- Annually monitor forest communities for garlic mustard and exotic shrubs and remove from the site
- Develop and implement a management plan to reduce the number of whitetailed deer and raccoon at the site are surrounding area
- Encourage oak regeneration, as well as increase species diversity, through fire management and if necessary supplemental seeding
- Limit further fragmentation of intact forest blocks by utility rights-of-ways and recreational trails
- Minimize runoff of chemicals from golf courses into adjacent natural areas by developing and naturalizing detention ponds, using safe procedures for handling chemicals, incorporating natural buffers around waterways, and minimizing chemical inputs
- Manage the forests on both sides of Teggerdine Road as one unit, to minimize the interior area of the forest, providing additional nesting habitat.

<sup>&</sup>lt;sup>15</sup> Shiawassee and Huron Headwaters Resource Preservation Project. 2000

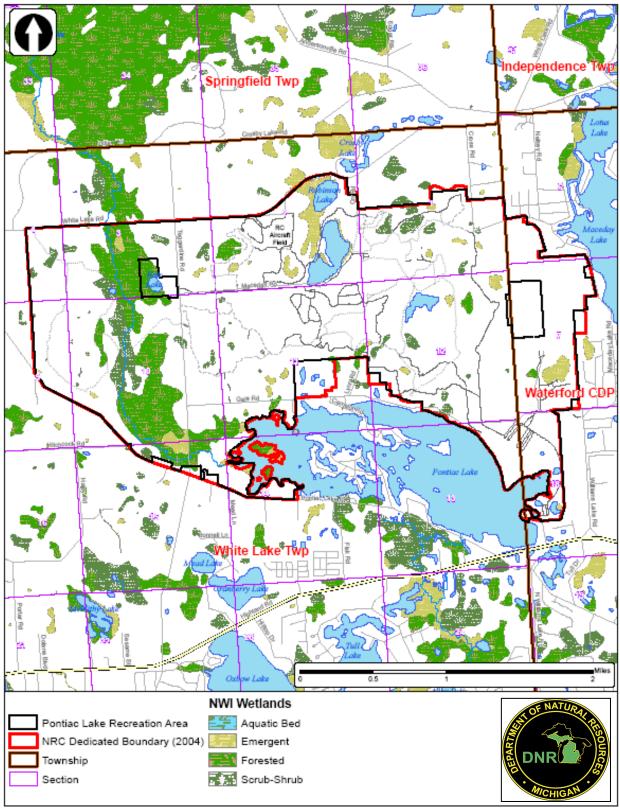
#### <u>Wetlands</u>

The term *wetlands* refers to a variety of wet environments, inland mashes, wet meadows, mudflats, ponds, bogs, bottomland hardwood forests, and wooded swamps. There is a significant amount of wetlands at PLRA. These include open water, scrub/shrub, emergent growth, and forested. Wetlands provide flood control, wildlife habitat, filtration of potential contamination of local aquifers, and aesthetic beauty. In PLRA, wetlands can be found mainly along the Huron River corridor and near the marshes of Robinson Lake.

#### Potential Natural Areas

The term *potential natural area* is not to be confused with the legal term *Dedicated Natural Area*, as described in Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act of 1994, which gives land special legal protection. Instead, a potential natural area is a term used by MNFI to define places that are dominated be native vegetation and that have a high level of potential for harboring natural areas and unique natural features. MNFI uses a process to rank these areas based on the area's total size, size of its core area, the absence or presence of a stream corridor, its landscape connectivity, the restorability of surrounding lands, the quality of the vegetation, parcel fragmentation, and the number of element occurrences. MNFI uses these criteria to establish three levels of priority for *potential natural areas*—Priority One, Two, and Three.<sup>16</sup> Many acres of PLRA fall within all three categories, including the areas mentioned in the S&H Project: the Huron River Corridor and the areas referred to as Pontiac Lake East and Pontiac Lake West.

<sup>&</sup>lt;sup>16</sup> Michigan Natural Features Inventory. Potential Conservation/Natural Areas Report, Oakland County 2004



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#### Historical/Cultural Resources within Pontiac Lake RA

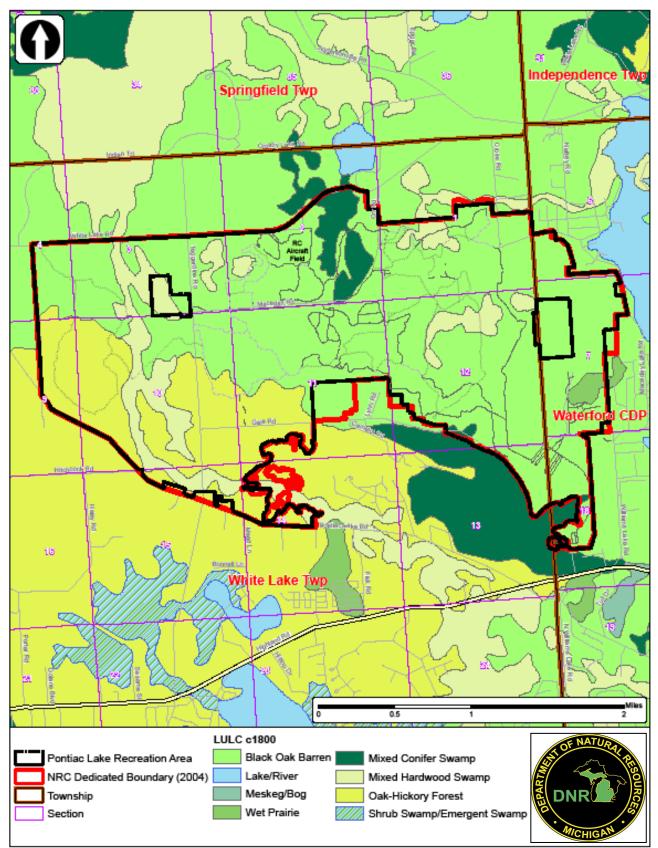
#### Archeological Resources

Pontiac Lake Recreation Area contains seven known archaeological sites and there is the possibility of others<sup>17</sup>. There are several concrete foundations there, which are attributed to farms dating back to the 1800s. PLRA may potentially have more areas of archaeological significance since it is near the headwaters of the Huron River, it is on the site of several glacial moraines, has a lot of undeveloped land, and it is close to the Detroit area.

As of 1980, Oakland County had 246 archaeological sites recorded, including several in White Lake and Waterford Township. These sites range from the earliest Paleo-Indian period, through the Archaic, Woodland and Historic periods.<sup>18</sup> The majority of artifacts found in Oakland County come from the Archaic period and occur along the interface between the glacial lake bottom in Southeast Oakland County and the hilly upland glacial moraines and till plains to the northwest. PLRA falls within this interface. Future discovery is possible. Also, metal detecting is permitted in certain areas of the park. Any items found must be reviewed by park staff and may be retained for further archeological investigation.

<sup>&</sup>lt;sup>17</sup> State of Michigan Office of the State Archaeologist. "A Preliminary Inventory of Archaeological and Historical Sites in Michigan State Parks and Recreation Areas." 1996.

<sup>&</sup>lt;sup>18</sup> Stamps, Richard B., and Richard L. Zurel. "A Pilot Survey of the Archaeological Resources of Oakland County." In *Technical Report Series No.* 27. Rochester, MI: Oakland University, 1980.



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#### Education and Interpretation

#### Park Explorer Program

State park explorer guides lead informal programs and hikes that feature each location's unique natural, cultural and historic resources. Program topics include forests, insects, night hikes, pond studies and other topics covering the variety of plants, animals and natural features found within each park. These programs are designed for children and adults, often in a family setting.

In particular at PLRA, during 2003-2005, the park explorer program developed several smaller programs; including lessons on geological formation of the area, astronomy, invasive species, animal habitats, and insects. The program at PLRA also includes fishing lessons for children and guided hikes that normally start near the campground.

#### **Recreational Resources within Pontiac Lake RA**

#### **Developed Opportunities**

#### Day Use Area

There are day use facilities located on Pontiac Lake, including a ball field, 1/3 mile long beach that is open to swimming, modern concession stand, boat launch, bathhouse, toilet buildings and picnic areas.

#### Playground

There is a variety of playground equipment at the day use area.

#### Camping

There are 176 modern campsites. There are 24 equestrian campsites.

#### Hunting

Rabbits, squirrel, grouse, woodcock, ducks, geese, raccoon and deer may be hunted during their respective seasons.

#### Fishing

Pontiac Lake offers excellent fishing for bass, pike, and panfish.

#### **Bridle Trails**

There are 17 miles of trails for use by equestrians.

#### **Mountain Biking**

There are 11 miles of mountain bike trail. Major trail reconstruction has separated equestrian and mountain bike trails to promote safety for all users.

#### **Hiking & Cross Country Skiing**

A 1.9 mile hiking trail runs from the campground to the beach area. Hiking is also allowed on mountain bike and equestrian trails.

#### Shooting/Archery Range

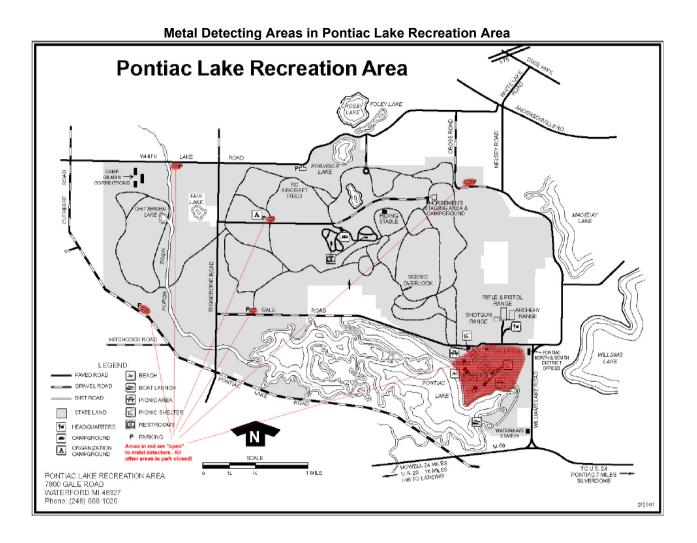
There is a shooting range supervised by the Department of Natural Resources Law Division. It has a 25, 50, and 100 yard rifle, pistol and black powder range. There is also a shotgun and archery range.

#### Snowmobiling

Snowmobiling is permitted in all areas of the park, provided there is a base of snow four inches deep.

#### Metal Detecting

Metal detecting is recognized as a legitimate recreational activity when it is conducted in ways that do not damage the natural and cultural resources in Michigan State Parks nor violate applicable state statutes. Metal detecting is allowed only in certain areas. Any items found must be reviewed by park staff and may be retained for further investigation.



## **Boating Access Site/Launch**

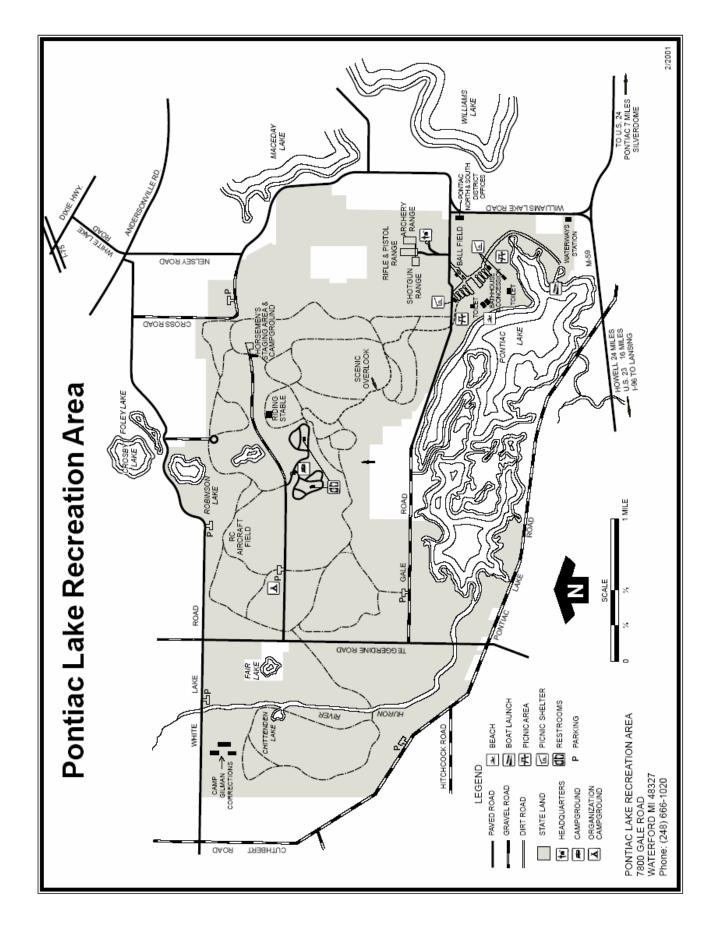
Boaters use the lake for cruising, water-skiing, tubing, and fishing.

#### **Radio-controlled Airplane Flying**

The 'Pontiac Miniature Aircraft Club' designated field is located south of White Lake Road in the north-central part of the park.

## **Bird-watching**

There is ample habitat for birds and an active Audubon Society chapter that visits the park regularly.



## Areas of Conflict

<u>Trails</u>

The major recreational issues faced by PLRA involve trail use, hunting, ORVs, and snowmobiles. In 1998, trails were segregated due to growing conflicts between user groups. <sup>19</sup> Today, hiking, mountain bike, and equestrian trails have been realigned to satisfy each group. However, the popularity of trail-related recreation has future implications. There remains pressure on PLRA to increase the number and configuration of trails. Trails, like other features of the built environment, are durable. They last a long time. Any change to trails can upset a dynamic balance in the ecosystem for a long time. Although user groups have worked to manage trails through volunteer efforts, the repercussions of increased trail density to habitat may be unknown and beyond the efforts of those engaged in trail maintenance. For further analysis of trial development see MDNR's *Southern Michigan Trails Program Management Plan*, completed in 2000.

#### <u>Hunting</u>

Also, hunting is one of the major uses of PLRA. However, newer residents, who are often not as familiar with hunting, may object. Noise and perceived danger are part of the objection. The growth of population and increased use the park may increase conflicts among hunting and non-hunting groups. Parts of PLRA were purchased with Pittman-Robertson funds, which were specifically intended to provide public hunting access.

#### <u>ORVs</u>

Off-road vehicles (ORVs) are prohibited in PLRA. Due to the growth in population and close proximity of houses to the park, ORVs from private lands are in evidence throughout PLRA, particularly near the gravel pits off of White Lake Road. Any type of trail can be used by an ORV, which makes it difficult for enforcement.

#### **Snowmobiles**

Snowmobiles are permitted in PLRA, provided that there is a four inch base of snow. With the unpredictability of weather and the relatively moderate level of snowfall in Southeast Michigan, it is difficult to estimate the total number of days in a year in which snowmobilers can legally access the park. However, there is evidence of ruts and tracks left by riders who have not observed the four inch snow base limit. Like ORVs, enforcement is difficult.

<sup>&</sup>lt;sup>19</sup> Pontiac Lake Trail Riders Association and Michigan Mountain Biking Association. *Master Plan for the Trail System at Pontiac Lake Recreation Area.* 1998

#### Shooting Range

Shooting Ranges may be subject to numerous local, state and federal regulations. At PLRA the following state laws apply:

- State of Michigan, Department of Natural Resources, Land Use Orders of the Director
- Part 31, Water Resources Protection
- Part 111, Hazardous Waste Management Part 115, Solid Waste Management (pdf file)
- Part 201, Environmental Remediation

Also, the following federal laws apply:

- <u>Resource Conservation and Recovery Act (RCRA)</u>
- <u>Clean Water Act</u>
- Superfund Emergency Response Program

Other local laws, permits, and ordinances may also apply concerning:

- Lead abatement issues
- Hours of operation
- Noise
- Habitat
- Local ordinance (Waterford Township)
- DNR Law Division administrative rules

#### Boating

The boating access site has been recently upgraded.

#### Beach Use

The beach has never been closed at PLRA due to E. Coli. It is tested regularly by the Oakland County Health Department, in accordance with DEQ and EPA regulations. For specific information regarding the testing history of Pontiac Lake from the Department of Environmental Quality, see <a href="http://www.deq.state.mi.us/beach/public/default.aspx?County=63">http://www.deq.state.mi.us/beach/public/default.aspx?County=63</a>.

#### Park Use Statistics and Economic Impacts-2010

<u>PARK USE</u> – Pontiac Lake RA is near the urban areas of Southeast Michigan in Oakland County. Its accessibility to several major highways (I-75, I-96, US-24 and M-59) help to account for its more than 344,000 visits to the park in 2010. Of these, 91% were day-users; the remaining 9% of visitors were campers. Total revenues generated by the park in 2010 were \$481,888.

Characterization of park use is described as follows: (based on MDNR-Park Attendance Statistics)

- <u>Summer Use Season</u> This is defined as the four month period of June through September, when schools are not in session and the weather continues to be pleasant. This is the busiest season for Pontiac Lake RA, producing 75.8% of all day-use during these months. During this season, 86.8% of the parks campers are also present.
- <u>Fall Use Season</u> At Pontiac Lake RA, the fall season is defined by the months of October through November. 11.5% of all day-use take place within this season, while campers drop to 6%.
- <u>Winter Use Season</u> December through April see a decrease from fall activity at Pontiac Lake, with day-use activity dropping to 4.6%. In 2010, there were no winter campers, and the day-use was limited to December of this season. No visitors were in attendance January through April.
- <u>Spring Use Season</u> –May shows an increase in park attendance from winter use. Day-use rises to 8.2%, camping rises to 7.2%. In this season, use continually increases as the weather warms up in May into June. In 2010 day-use was at 0 in April and over 25,000 in May, rising again to over 49,000 in June.

<u>ECONOMIC IMPACTS</u> - Michigan State University (Dr. Dan Stynes) developed an economic analysis model known as "MGM2". This model is an update of the MGM model developed by Dr. Ken Hornback for the National Park System in 1995. The purpose of the updated MGM2 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 analysis tool, like others, relies on three primary factors in the common equation:

Economic Impact of Tourism Spending = Number of Tourists (x) Average Spending per Visitor (x) Multiplier (to estimate extended effects of direct spending).

For our purposes of conducting a very <u>basic</u> review of impacts, we have utilized the "MGM2-Short Form" version of the program, which simplifies the extent of analysis required for input, and utilizes more generalized multipliers for spending outputs. For

the non-economist, this provides an excellent tool for establishing a baseline assessment of the economic impacts of our parks.

Economic impacts of Pontiac Lake RA to the local community are significant. Oakland County is a boasts a stable position in the economy in spite of fluctuations across the state. Its diverse economy and natural amenities, such as Pontiac Lake RA, continually attract visitors to the area. The local economy benefits from the influx of this 'new' money to Oakland County.

Following are the relative economic impacts (based on 2010 data) of Pontiac Lake RA to the economy of Oakland County: ("<u>MGM2-Short Form</u>" for Pontiac Lake Ra)

## DIRECT ECONOMIC EFFECTS TO THE COMMUNITY FROM DAY-USE

- <u>Direct spending</u> attributable to Pontiac Lake RA visitors totaled \$5,188,000. Of this, \$3,436,540 is attributed to day-use, \$1,751,830 to camping within the park.
- <u>Jobs</u> totaled 123. This number includes both day-use (82) and camping (42) staff. (Note...jobs are not full-time equivalent. They include part-time and seasonal positions.)
- <u>Personal Income</u> total is \$1,869,000. Day-use generated \$1,238,160 of this, while camping activity generated \$631,170.
- <u>Value added</u> (total income plus business taxes) from day-use came in at \$1,879,550, camping at \$958,130, totaling value added at \$2,838,000.

<u>TOTAL ECONOMIC EFFECTS TO THE COMMUNITY</u> (NOTE...this reflects '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.

- <u>Total spending</u> = \$8,021,000 (55% over direct spending)
- <u>Jobs</u> = 162 (32% over direct job impacts)
- <u>Personal Income</u> = \$2,898,000 (55% over direct spending)
- <u>Value added</u> = \$4,589,000 (62% over direct value added)

NOTE....for purposes of updating economic values, the Consumer Price Index (CPI) is often used to adjust values over time. Through the following link, [http://www.bls.gov/home.htm ] a CPI Inflation Calculator is located in the category of "Inflation and Consumer Spending".

# PLANNING OVERVIEW

## Meetings:

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- Start-up Planning Team Meeting Stakeholder Meeting
- 4/20/2006
- 1/29/2007

3/2/2005

#### Plan Reviews:

- 12/14/2011
- PRD Management Team

Public Input Meeting

- SLP Ecoteam
- DNR Statewide Council
- Michigan State Parks Advisory Committee
- 2/9/2012

12/20/2011

1/17/2012

## **Appendices**

## **Meeting Minutes and Public Comment**

#### Start-up Meeting

Pontiac Lake Recreation Area Management Planning Meeting March 2, 2005

Present: Kris Bennett, Luba Sitar, Karis Floyd, Howard Rocheleau, Julie Jeffery

Meeting called to order: 1:00 PM

Power point presentation regarding the following topics: Management Planning, Master Plans, Historically Park Planning, Current Impacts, General Tenets of this Planning Process Are, Overview, Phases, Outline, Mission, Vision 2020, Law and Policies, Resources Inventory and Analysis, Additional Information Evaluated, Zone Definition, Standard Management Zones, Zone Objectives, Ecologically Sensitive, Primitive, Backcountry, Cultural Landscape, Historically Educational, Scenic, Nature Resources Recreation, Developed Recreation Zone, Administrative Zone, Existing Management Tools (Optional), Planning Team, Identify Park Stakeholders, Phase 1 Proposals in Draft Form, Meet With Stakeholders, Purpose, Significance, Management Zone Plan (Draft), Information Meeting, Public Input, Finalize General Management Plan, Phase 2 – 10 Year Action, Phase 3 – 5 Year Action, Phase 4 – Annual Performance Plan and Report, Prioritization of Statewide Implementation, 1980 Population, 2040 Population Projection, Time Estimate for GMP Development, Thank You, Questions and Discussion.

Kris Bennett to make all changes to power point presentation and provide copies to present members.

Management Planning Checklist distributed. Topics discussed:

- General Management Plan (Phase 1) See attached checklist.
- 1. Pre-Meeting Preparation  $-2^{nd}$  meeting 4-6 weeks after initial meeting.
  - Lansing Office Research-Kris Bennett to contact Paul Curtis/Lisa Gamero to gather information from HAL records, MNFI report, Vision 2020 MSU studies, CGI information for "real boundaries" and stewardship.
  - Park Research- Prepare power point presentation (15-20 photos) with historical information, current happenings, photos and yearly special events. Check files for original park plans information and maps (send to Kris). Park to prepare one hour tour with negative and positive highlights in park.
- 2. Internal Meetings Hold meeting with interested DNR divisions, FD, FMD, LED, EO, WD, HAL and any others that might have an interest.
  - Kris to organize meetings.

- Karis to provide Kris with additional names that he feels should be included in internal or stake holder meetings.
- 3. Stake Holders Meeting- one or two meetings as needed
  - Make mission statement very clear to groups.
- 4. Public Notice
- 5. Public Information Meeting It is our responsibility to keep the meeting focused on topics relating to Pontiac Lake Recreation Area.
- 6. Completion of General Plan Process 6-12 Month process
- Long Range Goals (Phase 2)

Meeting adjourned 3:30

# Pontiac Lake Management Planning

# **Stakeholder Meeting**

Meeting called by: Kris Bennett

Discussion:

Minutes					
Agenda item:	Introductions of attendees	Presenter:	Kris Bennett		
Discussion:					
All persons present introduced themselves and the organizations they represented.					
Agenda item:	Management Planning Overview	Presenter:	Kris Bennett		
Discussion:					
Kris Bennett presented the Management planning process and trail Density draft to the group. HCMA wants to make sure that Pontiac Lake does not duplicate HCMA's efforts in education and interpretation. That is their emphasis. A partnership with them to help provide this would be beneficial to both organizations.					
There is concern with the new dedicated boundaries that they remain the new boundaries and not get sold off. How is this addressed in the Management planning process? It was stated that these zones will help enforce why certain parcels are needed and lend credence to the boundaries, but does not negate the other processes and policies in the State.					
Snowmobile issue- question right now.	if we zone an area for no snowmobiles how will we enford	ce? There is not	a clear answer to that		
Agenda item:	Discussion on Purpose and Significance for Pontiac Lake RA	Presenter:			
Discussion:					
	ice and purpose statements were discussed and reviewed ent and no changes were received after the meeting.	d as a handout. N	No other additions were		
Conclusions:					
Purpose and Significance Statement will be re- reviewed and sent out for final review of stakeholders prior to organization of Public Meeting.					
Agenda item:	Charette on Management Zoning	Presenter:			

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1 pm

April 20, 2006

Oakland County Parks and Recreation Executive Conference Room The group broke up into groups and discussed the draft Management zones as presented in the Powerpoint. The consensus was that the Draft plan was a good start. Some groups wanted more protections in the zones and others felt that the zones were good as drafted. The one area should be considered for change was that the entire river corridor should be protected to the "primitive" level based on the 100 year floodplain.

#### Conclusions:

An evaluation of the draft plan was made and it will be sent out for final review of stakeholders prior to organization of Public Meeting. The river corridor was evaluated and determined that the back country zone would be sufficient protection for this river corridor while still providing the management of appropriate recreation near or crossing the river. This will remain back country north of the power lines and primitive south of the power lines.

Presenter

Agenda item: Discussion on Comment Form

#### Discussion:

Discussion was based around what issues and development needs are at Pontiac Lake Recreation Area.

Mountain Bike Trail needs to be completed. There is not a standard for what length of trail that would be. Highland has a "done" feel. It is 16 miles. The Potawatomi trail is 17 miles.

Equestrians do not need any more miles of trail. They would like access for year round riding. They need a year round parking lot that would accommodate 12 rigs. They would like expansion of the rustic campground (30 Sites). AN upgrade of the Eq. CG water well is needed. Solar and electric are options.

The gate for the CG road may be in the wrong location for year round access to the park.

The user base is getting older and they would like more hunter access lots so that they do not have to walk far to access their favorite hunting spots.

The equestrian staging area does not have an adequate turn around for the horse trailers.

It would be nice if the Organization Camp came back.

Orienteering Club would like to map area West of Teggredine. They would like to have events in that area of the park.

Better connection trail between Indian Springs Metro park and Pontiac Lake RA (bridge or tunnel)

Better programming coordination between HCMA and State Parks

Better planning coordination between HCMA, County, townships and State Parks (sharing resources, dollars, etc.)

Collaboration, interconnectivity between all "green spaces" in the region and a county wide parks map is needed

Pontiac Lake is a big birdwatchers area. Design and access needs to accommodate that recreation.

Campground needs a jogging course. Relatively short, relatively flat, crushed limestone.

Campground needs activities (disc golf, Ultimate Frisbee, ball fields, jogging trail, movie night, etc.)

Trails need to show levels of difficulty.

Trails need stacked loops for different levels of riders

Better trailhead areas, and more than 1.

Maintenance needed on hiking trail

GPS locations on trail markers

Expansion of campgrounds (rent a cabin, semi modern areas)

Other trails need signs like the Mtn Biking trail

Waterfront and wetland interpretive boardwalk

Kudos to Pontiac Lake Staff. They are doing a great job.

Orienteering is an important recreation at this park and should be encouraged and expanded.

An evaluation of the appropriate recreational activities per zone needs to be documented and provided for better understanding of the purposes and limitations of the zones. (RD management is working on a matrix for this) Development of this park should be kept to a minimum

#### Conclusions:

All issues and ideas will be evaluated and addressed as appropriate.

Attachments: Pontiac Lake Draft Purpose and Significance list

Pontiac Lake Draft Zones

# Pontiac Lake Management Planning

Kris Bennett

# **Public Meeting**

Meeting called by:

January 29, 2007

1 pm

Oakland County Sportsman Club

Minutes					
Agenda item:	Introductions of attendees	Presenter:	Kris Bennett		
Discussion:					
Kris Bennett District Planner, Luba Star District Supervisor, Karis Floyd Pontiac Lake Park Supervisor, David Smith PLRA Ranger 8, Howard Rocheleau PLRA Ranger 9, Julie Jeffery PLRA Accounting Tech, Karen Gourley OC, Glen Palmgren RD Stewardship, Charlie Brauer, Law Division					
Agenda item:	Management Planning Overview	Presenter:	Kris Bennett		
Discussion:	Power Point Presentation of planned zones				
Comments & Statements from attendees:					
Maybe back country should be more restricted					
How long until this plan starts – 2 months from today					
All planning schedules will be available on the DNR website					
Phase 2 will have long range goals					
Zones- allow/limit what goes on in these areas					
No zones e	xclude hunting				
Invasive species plan – not currently in Pontiac Lake Recreation Area					
Volunteers to remove invasive species contact park office					
	ay for use, no taxes paid by user, tile fields not workir ng opportunities lost.	ng correctly, restricted	areas are to large		
• Nothing is currently planned for this area, decisions for use are made higher than us as land managers, Highland/Pontiac Lake trail connection					
<ul> <li>Zoning in this management plan would restrict a trail going through this area</li> </ul>					
Multi-use trails		0			
public proce	ess to separate trails, dedicated trails for different use	es			
Teggerdine	& White Lake Rd tunnel sharing – various uses do n	ot mix, possible 2 <sup>nd</sup> tu	nnel for other uses.		
DNRE reserves the right to restrict use to protect areas.					
Agenda item:	Discussion on Comment Form, purpose and Significance Statements and Management Zone	Presenter Plan			

**Discussion:** 

#### 1. What natural resource values of the park are important to you?

What grows and lives here, Water/streams, Beautiful, Birding, morel hunting & other passive recreation, Topography very unusual, like mountain range, Close to city areas, Up-north feeling, Beauty in your own back yard, Near by challenge for recreation

#### 2. What is the importance of the historic/cultural resources to you?

Very important state history, Old ski lodge – abandon history, Natural history – head waters Great place for children's education (close to home)

#### 3. What recreational opportunities are important to you?

Horse back riding, Hiking, Equestrian camping, Mountain biking Hunting/fishing, Shooting range Snowshoeing & x- country skiing, Trail running Swimming Orienteering/ permanent course Adventure racing Org. camping Kayaking Wildlife viewing Model airplanes Geocaching Special events Interpretive native program 4. What education/interpretation opportunities would you like to see? Park interpreter's Park nature centers w/classes School group programs More educational advertising for all state parks Adult education programs - star gazing, foot prints, animal tracking Interpretive trail campground to beach Programs for educators 5. Would you add anything to the statements of "Purpose" or Significance"? Purpose: add cultural artifacts Significance: introduce the outdoors to ALL of today's youth 6. Do you have any suggestions for the application of "Management Zones"? Green management everything should be primitive zone the prison stinks – shut it down protect resource's west of Teggerdine, protect river corridor all the way, corridor along power lines should be developed recreation corner Teggerdine & Gale should be back country re-look amount of natural resource recreation zone.. too big Comments: Trails are fairly well marked, trails are not marked (maze) Friends group – 1<sup>st</sup> Monday of the month @ Oakland County Sportsman archery building

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#### **Conclusions:**

All issues and ideas will be evaluated and addressed as appropriate.

## **Other Information**

Attachments: Pontiac Lake Draft Purpose and Significance list

Pontiac Lake Draft Zones

# **PUBLIC INPUT**

#### Pontiac Lake Recreation Area General Management Plan

On January 29, 2007, a public information and input meeting was held at the Waterford Sportsman's Club. Kristen Bennett, Park Planner, DNR Parks and Recreation Division, moderated the meeting. 39 people attended. The purpose of the meeting was to outline the management planning process as well as to solicit comments about the draft management plan's purpose and significance. A 10question survey was distributed to attendees. The results are as follows:

1. What natural resource values of the park are important to you?

- Location, close to home
- Natural area near urban development
- Keeping as much area as possible undeveloped
- Up north feeling
- Silence and tranquility
- Wildlife scenery lookouts (2x)
- Wildlife; birds
- The intersection of three rivers
- Water (2x)
- Lake margins

- Vernal ponds
- Wetlands (2x)
- Second-growth forest; woods
- Everything that grows and lives there; Plants, flowers, trees; biodiversity; Berries, mushrooms, birds
- Trails (2x)
- Rustic and undeveloped recreation; not overly organized or developed (2x)
- Unusual topography, hills
- 2. What is the importance of the historic/cultural resources to you?
  - Native plant environment
  - Trails
  - The riding stable
  - Old buildings
  - Old electric posts
  - Keeping the size and natural state of the park in track
  - Abandoned history
  - That my son be able to grow up with green spaces around him
  - Evidence of early farming activities
  - Helps to understand earlier societies
  - none

- Remains of its history as farmland (e.g. old farm equipment and old foundation)
- Education, including adult education, which people would pay for
- Protecting the ski lodge foundations
- Protecting natural resources (e.g. rivers and wetlands)
- Great place to bring children to educate them
- Leave as much land undeveloped as possible

- 3. What recreational opportunities are important to you?
  - Horseback riding (14x)
  - equestrian camping (7x)
  - Cross country skiing (2x)
  - Kayaking (4x)
  - Canoeing
  - Swimming (3x)
  - Boating (2x)
  - Hiking (10x)
  - Walking
  - Mountain biking (2x)
  - Paddling
  - Snow sports
  - Wildlife education
  - Wildlife viewing

- Snowshoeing
- Trail running
- Adventure racing
- Snowmobiling (3x)
- Hunting
- Camping (2x)
- Fishing
- Orienteering (3x)
- Model airplane flying
- Educational camping
- Geo-caching
- Interpretive nature programs
- birding
- Special events
- 4. What education/interpretation opportunities would you like to see?
  - Offer programs and charge a fee for them
  - Learning plant names (2x)
  - Star gazing and astrology (could be a fee based class)
  - Walks and talks about invasive and endangered species
  - Programs for educators
  - Wildlife education, especially with children
  - Reintroduction of youth to nature
  - Park interpreters and nature centers with paid classes
  - Better communication with local schools about programs

- Seminars on conservation of plant and animal life
- Kiosks outlining the history of the park
- Interpretive signs along trails identifying ecological and geological features (2x)
- Wildlife and wildflower walks with a naturalist
- Petting zoo
- Plant and flower demonstrations
- Orienteering programs
- Treasure hunting with a compass on foot or by horseback
- 5. Would you add anything to the statements of *purpose* and *significance*?
  - Preserve natural environment for future generations
  - Keep trails open to enjoy the natural resources environment
  - To introduce the outdoors to all youth
  - Be protective of the area near the headwaters of many rivers

- Add cultural artifacts
- To preserve as much land in its original and in a virgin state as possible
- To preserve PLRA from land use changes (e.g. commercial or residential development)
- Maintain the equestrian trails for future generations

- 6. Do you have any suggestions for the application of the management zones?
  - Day use area for the horse staging area should be a backcountry zone
  - The area that is bordered by Teggerdine and Gale Roads should be added to the backcountry zone.
  - Too technical to really understand
  - Clarify the management zones
  - Powerline corridor should be a developed recreation zone
  - Move southern mesic oak forest to backcountry zone
  - Evaluate the amount of land given over to natural resource recreation
  - I do not see any necessity to avoid areas for recreational uses, except the wetlands
  - The primitive area is too large and has open areas containing pavement that are not really *primitive*.
  - Make primitive zones open to orienteering activities since it is so low impact.
  - The designation of the primitive zone to the area south of the utility corridor and west of Teggerdine was not based on ecological-driven principles; it was arbitrary.
  - Review the boundaries of the primitive and backcountry zones; it might be more appropriate to make a primitive zone riparian corridor along the Huron River, with trail crossings designated as backcountry.
  - I am pleased by the primitive zone designation for the area west of Teggerdine and south of the power lines and the area east of Teggerdine and south of Gale Road
  - Do not allow trails in primitive areas
- 7. What are your thoughts on the overall management focus for the park?
  - Prevent poaching
  - Prevent garbage dumping
  - Keep non-paved trails open
  - Keep the park as natural as possible
  - Reasonable
  - Use ecologically safe products to manage the parks (e.g. no rock salt on roads and no chemicals on lawns)
  - Use green management principles in park operations
  - West of Teggerdine and north of Pontiac should be a primitive zone to protect water quality
  - Protect the river corridor. Make that area primitive rather than backcountry.
  - To check more for park stickers and payment
  - Implementation of the management plan might be slow. Ask park users to help implement it.
  - You change your mind a lot, and we don't know what to believe.
  - Great; overall points are good

- Do not sell any more of the park off
- Users with major retail backing (e.g. bikers, runners, snowmobilers) have had too much clout with the DNR. Don't forget about the quiet, or passive, users
- Too technical to really understand
- 8. What is your general feeling about the park...what is your visitor experience?
  - Enjoy the hills and topography of PLRA
  - Up north scenery
  - Variety of trails
  - The park is great as is. The horse and bike trails are great.
  - The trails can be confusing
  - Beautiful park, lots of trails
  - The staff at PLRA is great. They work well with everyone.
  - The park is a great place to relax
  - PLRA is a very nice place
  - I absolutely love the park...it suits my purposes very well
  - Lots of variety in terrain and habitat...very valuable in our urban setting
  - Staff at PLRA are friendly, knowledgeable, and concerned about the park's future
  - Trails are maintained well
  - My overall experience has been very positive

- 9. Do you have any specific development suggestions?
  - Add equestrian trails (2x)
  - Improve equestrian camping
  - Mark trails better with maps (2x)
  - To maintain existing trails
  - Add new trails or open the old ones
  - Promote non-motorized recreation
  - Separate biking and hiking trails
  - No biking in backcountry areas
  - More hiking trails in backcountry areas
  - Put a booth on Campground Road in order to collect fees
  - Put an electric well in the horse campground
  - Create a nature and interpretive center
  - Create a better day staging area in the old group campground area for use during the winter when the gate on Campground Road is locked
  - Keep the tunnels for horses and hikers only
  - I love it just the way it is
  - Development should be kept to a minimum
  - An underpass under M-59 would be good to link the park to Highland RA
  - PLRA should remain as pristine as possible without any further development that would destroy natural habitat
  - Add electricity in the horseman's campground. We pay close to what it costs for at the modern campground, but don't have the same amenities.
  - Multiple entrances to the park means that many don't pay to use the park; overall park use is greatly misrepresented
  - Provide adequate parking to the area west of Teggerdine

#### 10. Other comments

- prison should not be in the recreation area (5x)
- need more camp sites
- more fines for those not cleaning up camp sites
- more litter pick up by staff
- lease paid in full, septic and drain tile fixed or don't allow it
- remove the prison and make it into a small camping area
- the park is a difficult maze of trails...need better trail marking
- remove non-designated trails
- create an express trail between the beach and the campground
- Advertise the park and market the resources
- add mini-shelters in the developed area at the beach, charge for them
- end the trail moratorium
- speed up the management planning process
- more cooperation with local municipalities in management planning

- more joint events between DNR and local recreation departments, including hunter safety courses, ATV and mountain bike classes, free fishing days, geo-caching, and trail networks
- I think the DNR has done a great job working with all user groups
- People in the orienteering community feel that we are misunderstood and treated unfairly by some employees of the DNR. We ask that management to fairly consider our impact and to base decisions on fact, not personal feelings against us.
- Develop equestrian trails and camping at Holly State Park
- Keep the park as natural as possible; do not develop it like a Metro Park
- Do not ban horseback riding in the park. There are few opportunities to ride in this area as it continually develops.
- Dumping and poaching are a problem since there are so many ways to access the park
- Preserve the horse trails on the west side of Teggerdine Road, and leave the tunnels for equestrian and pedestrian use only
- The camping season should be extended