

Appendix A: Supporting Analysis

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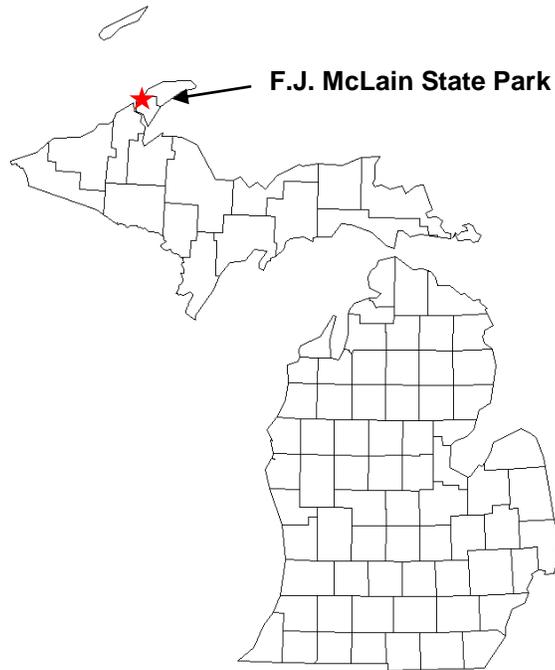
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A.1 PARK SETTING

Park Profile

Area: 443 acres
County: Houghton
City: Hancock Township
Latitude: 47°14'13"N
Longitude: 88°36'26"W

Address: 18350 Highway M-203
Hancock, MI 49930
Phone #: (906) 482-0278



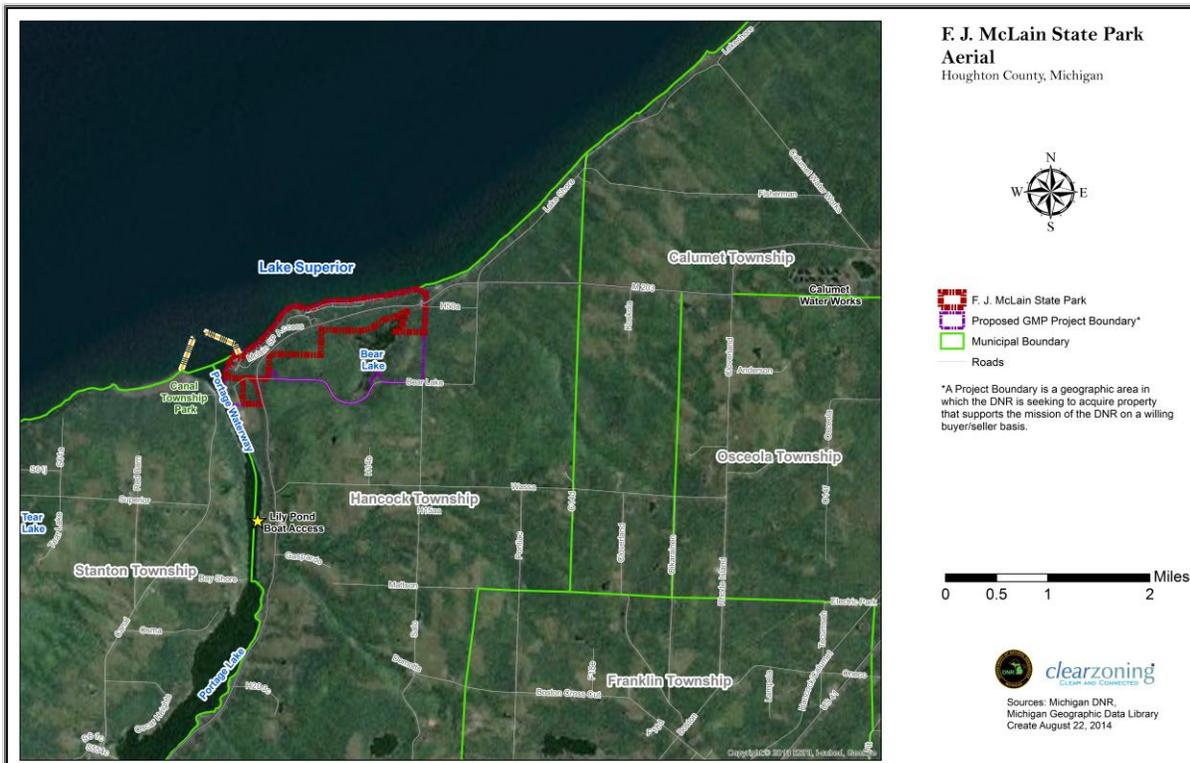
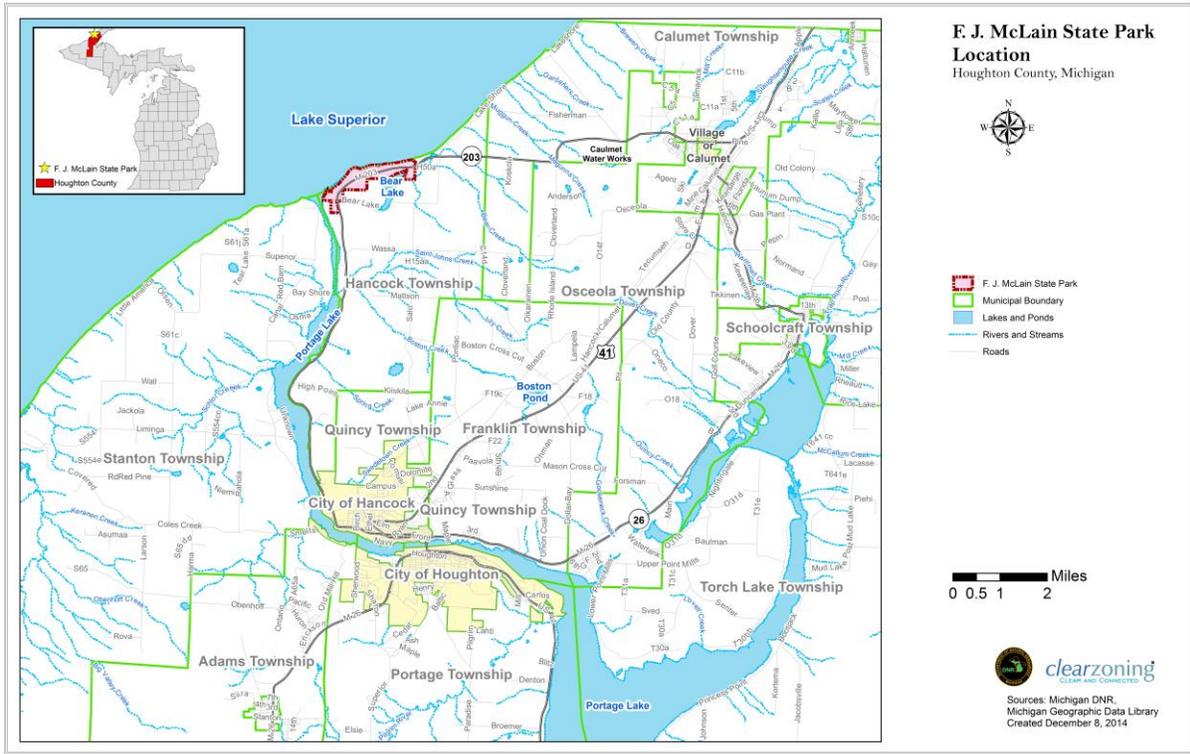
Location & Community

Situated on Lake Superior in the heart of Michigan's Keweenaw Peninsula, F.J. McLain State Park offers breathtaking lake views and is a popular destination for camping and swimming. While most of the park's two miles of shoreline is characterized by rocky beaches, there are sandy beaches along a stretch of land known as the Breakwaters located on the edge of the park near the Keweenaw Waterway.

The park is divided in half horizontally by M-203, which serves as a connector to the park from US-41. F.J. McLain State Park is located in Hancock Township and in close proximity to the cities of Houghton and Hancock, and the Village of Calumet.

The park is an important resource for surrounding communities, the Keweenaw Peninsula, and the Upper Peninsula as a whole. M-203 provides direct and easy access to the park for the local community as well as tourists. Additionally, the park serves as a base for exploration of the Keweenaw Peninsula and as a quiet and isolated area within the county. The park provides excellent opportunities for night-sky viewing with its location in an undeveloped area with little light pollution.

Houghton County's rich copper mining history, which resulted in a large number of migrant workers moving to the region, has greatly impacted the community, culture, and cuisine of the area. In fact, the City of Houghton was listed as one of the best places to live in the book, *The 100 Best Small Towns in America*. Both the city of Houghton and the city of Hancock compliment F.J. McLain State Park by providing a variety of year-round recreation opportunities for residents and visitors. Additionally, Houghton is home to one of the state's most popular technological universities, Michigan Technological University. The park serves as an important recreational and educational resource for the students, professors, families, and researchers associated with the University.



A.2 DEMOGRAPHICS

Houghton County was named for Professor Douglass Houghton, state geologist of Michigan. It was organized in 1845 from parts of Marquette, Schoolcraft and Ontonagon Counties. Historically the county is known for copper mining, processing, and transporting activities. The 2010 United States Census indicates Houghton County had a population of 36,628. This is an increase of 612 people from 2000, a growth of 1.7%. In 2010 there were 14,232 households and 8,093 families in the county.

The population breakdown of Houghton County by age shows that the county is on par with the Michigan average. However, the population density of 36 people per square mile is significantly lower than the state average of 174. The median household income and per capita income is also below the state average. According to the 2010 census, approximately 22.8% of residents live below the poverty level.

The main occupations in Houghton County today are:

- 1) Management, Business, Science, and arts occupations
- 2) Sales and office occupations
- 3) Service occupations

2010 U.S. Census Data for Houghton County

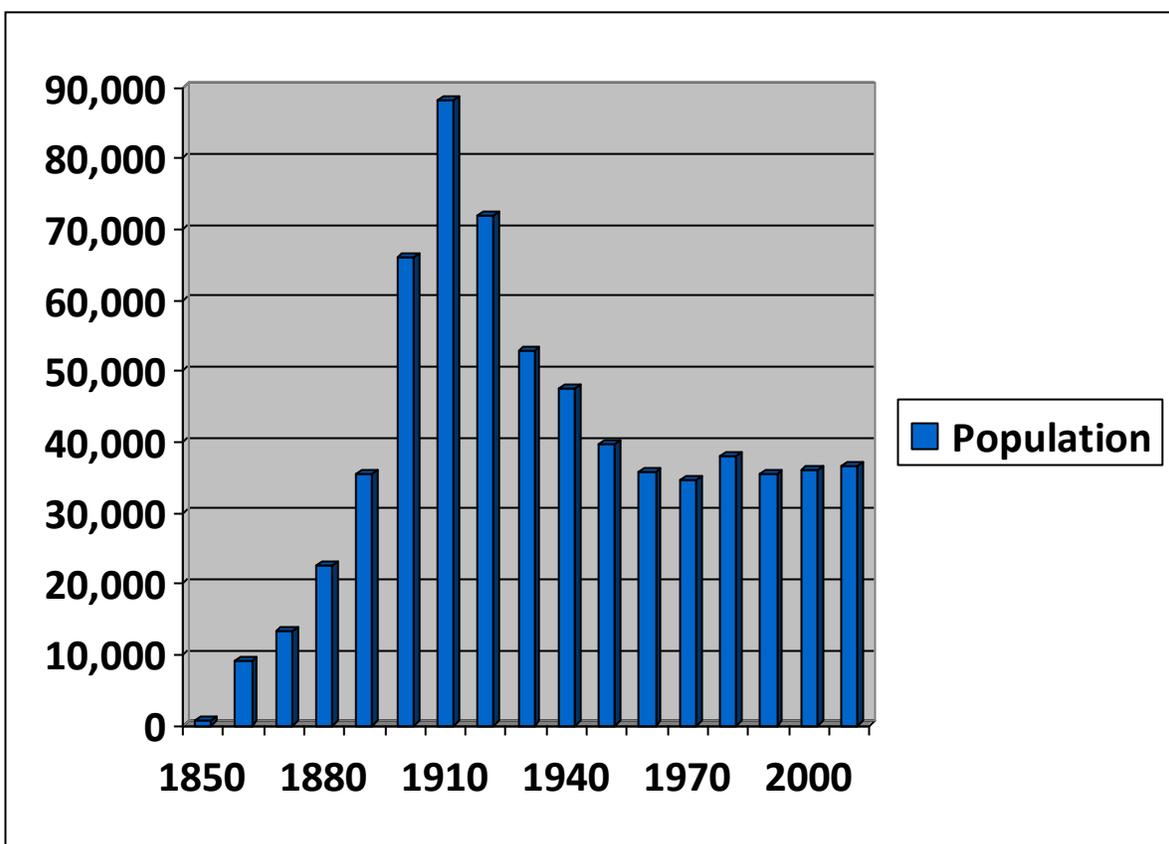
People QuickFacts Michigan	Houghton County	
Population, 2010	36,628	9,883,640
Persons under 5 years, percent, 2010	5.8%	6.0%
Persons under 18 years, percent, 2010	20.6%	23.7%
Persons 65 years and over, percent, 2010	15.0%	13.8%
Female persons, percent, 2010	45.9%	54.1%
White persons, percent, 2010	94.5%	78.9%
Black persons, percent, 2010	0.5%	14.2%
American Indian and Alaska Native persons, percent, 2010	0.6%	0.6%
Asian persons, percent, 2011 (a)	2.9%	2.4%
Native Hawaiian and Other Pacific Islander persons, percent, 2010	.04%	.02%
Persons reporting two or more races, percent, 2010	1.3%	2.3%
Persons of Hispanic or Latino Origin, percent, 2010	1.1%	4.4%
White persons not Hispanic, percent, 2010	98.9%	95.6%
People QuickFacts	Houghton County	Michigan
Foreign born persons, percent, 2008-2012	4.5%	6.0%
Language other than English spoken at home, percentage 5+, 2008-2012	6.8%	9.0%

High school graduate or higher, percent of persons age 25+, 2008-2012	90.7%	88.7%
Bachelor's degree or higher, percent of persons age 25+, 2008-2012	27.7%	25.5%
Veterans, 2010	3,108	703,970
Housing units, 2010	18,656	453,233
Households, 2010	14,016	3,825,182
Persons per household, 2010	2.38	2.53
Renter occupied housing, 2010	23.6%	27.9%
Median household income, 2010	\$34,625	\$48,669
Persons below poverty level, percent, 2008-2012	23.7%	16.3%
Seasonal housing occupancy, 2010	14,016	263,071
Housing units, 2010	18,656	453,233
Geography QuickFacts	Houghton County	Michigan
Land area in square miles, 2010	1,009.10	56,538.90
Persons per square mile, 2010	36.3	174.8
FIPS Code	061	26
Metropolitan or Micropolitan Statistical Area	Houghton, MI Micro Area	

Source: US Census Bureau State and County Quickfacts, 2010 Census

As indicated in the graph below, the population of Houghton County was strongly impacted by the emergence and decline of the copper mining industry.¹ The discovery of copper and iron in the mid-1800's led to a dramatic increase in Houghton County's population. The mineral industry resulted in a need for miners, trammers, engineers, technicians, mill workers and related laborers. This population influx led to a greater demand for services and food, which also attracted more people. Houghton County was the center of the mining industry; nearly 56% of the entire Upper Peninsula population resided in Houghton County.

The decline in population from 1910 to 1920 was due to several factors. First, the copper strike of 1913-1914, caused many immigrant miners to leave the county and seek work elsewhere. Second, many workers sought jobs in the automotive industry after Henry Ford announced the 8-hour day and \$5 per day wage-base in 1914. Finally, many of the miners began recognizing that the copper mining industry would not last forever due to the increasing cost of production and decided to find employment in other regions. In all, the population reduced by approximately 50,000 between 1910 and 1950, and has remained steady between 35,000 and 40,000 residents for the past 60 years.



¹ Magnaghi, Russel M. *Understanding Two Centuries of Census Data of Michigan's Upper Peninsula*. Available at http://www.nmu.edu/sites/DrupalUpperPeninsulaStudies/files/UserFiles/Files/Pre-Drupal/SiteSections/UPHistory/HeritageHistory/Census_Data.pdf

A.3 HISTORY OF F.J. MCLAIN STATE PARK

Beginning as early as seven thousand years ago and peaking around 3000 B.C., Native Americans dug copper from the southern shore of Lake Superior. During this period, copper was easily visible in the surface rock. The copper was used in this pre-historic period for tools and ornamental objects.

The mid-19th century gave way to copper extraction on a large industrial scale leading to the copper boom in the Keweenaw Peninsula. The industry grew through the latter part of the century and employed thousands of people well into the 20th century. (See A.2 Demographics for detailed discussion on the population fluctuation of Houghton County). During this time, the Michigan Mining School was founded (now Michigan Technological University). The last copper mine in the area ceased operation in 1967.



The existing toilet building was built in 1946

The other main industry in the region, running concurrently with mining, was logging, due to the amount of white pines located in the region. These trees were primarily cut for use in the mines and to build settlements in the area.

F.J. McLain State Park was the vision of Frederick J. McLain, a Houghton County Commissioner, who was instrumental in securing ownership of the first parcels of land in the early 1930s. In 1964, M-203 was moved to its present location so that F.J. McLain State Park could be developed without a main road through the center of the park. A new entrance and contact station were built in 1965. The Work Projects Administration (WPA) was responsible for nearly all construction done in the park.

Below is a timeline of some of the historic events relating to the park.

- 1868 - Construction began of the Keweenaw Waterway from Portage Lake (on the east) to Lake Superior (on west), which allowed large vessels safe passage. The project was a collaboration between the United States Government and several mining corporations. The waterway allowed for increased shipping efficiency, helping to increase production of copper operations in the region and allow for supply ships to provide goods primarily to the towns of Houghton and Hancock. The canal also established a harbor of refuge from the often violent Lake Superior storms.
- 1874 - To safely guide ships into the Keweenaw Waterway on the northwest entrance of the peninsula, a large gabled two-story brick dwelling with an attached 33-foot high brick tower was constructed.
- 1875 - A bridge was built connecting the two towns of Houghton and Hancock, establishing the only linkage from Michigan's Upper Peninsula and the Keweenaw Peninsula.

- 1930 – Houghton County State Park was established (later named F.J. McLain State Park). This was a joint state and county proposition. The state owned 142 acres with 3,800 feet frontage on Lake Superior from tax reversion. The County pursued acquisition of surrounding land.
- 1931 - The Park was named after Frederick J. McLain, a Houghton County Commissioner who was instrumental in establishing the State Park.
- 1935 - The entrance to the canal was widened and the lighthouse demolished
- 1949 – Campground, workshop and garage was developed with water supply and electric service
- 1950 - The Keweenaw Waterway Upper Entrance Lighthouse (a.k.a. The Portage Lake Upper Entry Light), a 50 foot square steel, art deco style tower, was constructed at the end of the breakwater at F.J. McLain State Park on a cylindrical crib. Originally operated remotely by lighthouse keepers, the light became fully automated in the 1970s.



The Keweenaw Waterway Upper Entrance Lighthouse

A.4 LAND OWNERSHIP

The majority of the lands that compromise F. J. McLain State Park have been acquired either through special legislation or gifted. Other portions of the park were acquired through tax reversion or using the Michigan Natural Resources Trust Fund (MNRTF). Often, conditions attached to the original funding source or other details of the property transaction encumber the future use or disposition of the land. The following outlines in more detail each funding source associated with F.J. McLain State Park.

Acquisitions

Gift

Much of the initial park acreage was a gift from Houghton County in 1933. This includes a total of approximately 195 acres in the northeast of the park, on the shores of Bear Lake and Lake Superior. In 1963 3.65 acres was gifted to the state from William A. Close and Mildred O. Close.

Federal Lands to Parks Program

In 1980, 16.45 acres was granted from the Federal Government to the State of Michigan on the Keweenaw Waterway for the purposes of public use with the following restrictions:

- The property shall be used and maintained exclusively for the public purposes for which it was conveyed in perpetuity as set forth in the original grant application dated April 14, 1980.
- The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency for the continued use and maintenance of the property as a public park or public recreational purpose. Transfer must be approved by the Secretary of the Interior in writing.
- Provides for reversion of the property to the United States of America if needed for national defense.
- Development of the property must be accessible to the handicapped and historic preservation must be coordinated with the State Historic Preservation Office (SHPO).

Michigan Natural Resources Trust Fund

In 1997, 29.39 acres was purchased southwest of Coast Guard Road. Restrictions include the following:

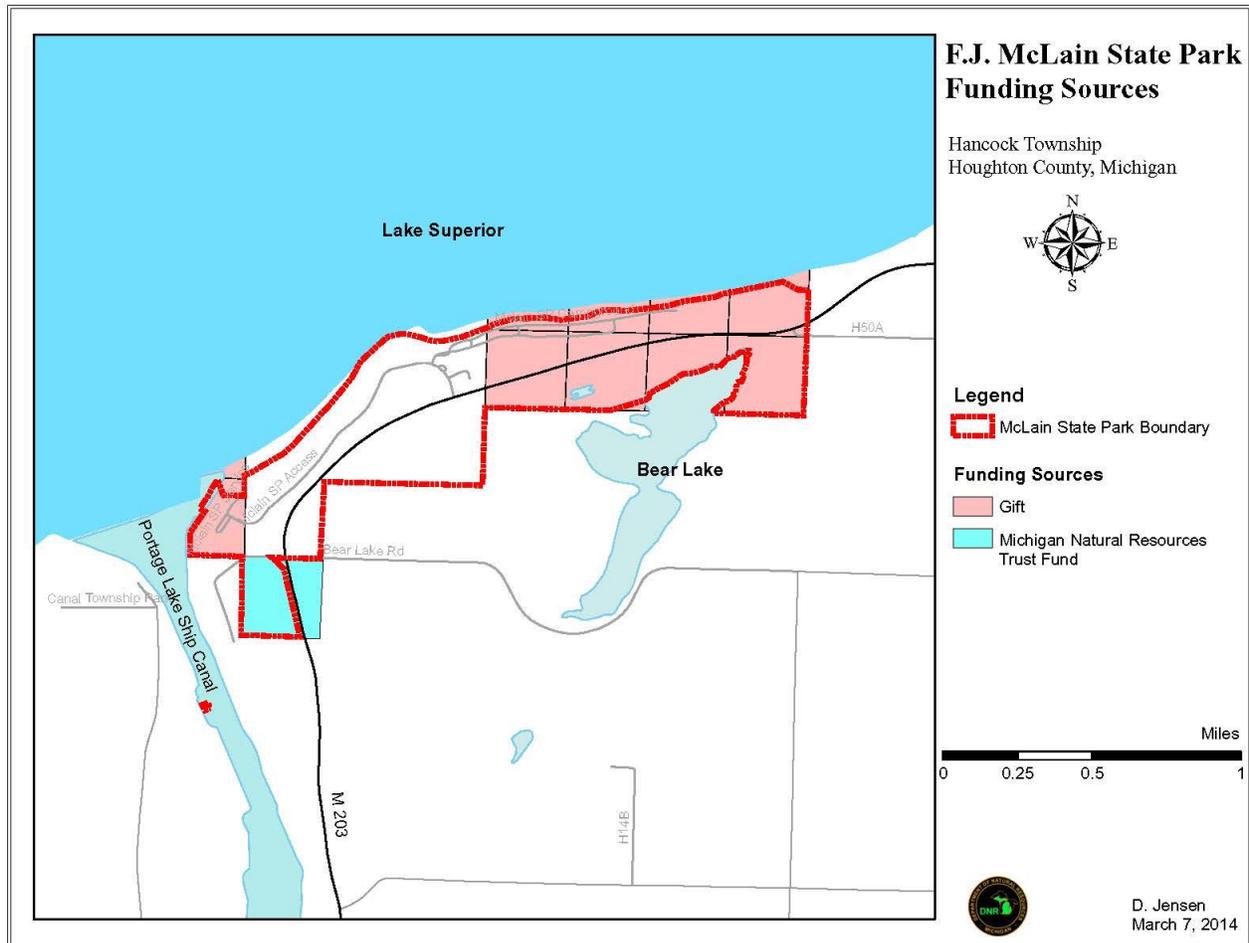
- Retaining all rights acquired in coal, oil, gas, sand, gravel or any other minerals in perpetuity.
- To not develop any rights in coal, oil, gas, sand, gravel or any other minerals that will diminish the usefulness of the project area for its intended purposes including adjacent lands.
- Erect and maintain a sign or other acknowledgement that the lands were acquired with assistance of MNRTF
- To make the land and any future recreation development provided on the land thereon open and available for public outdoor recreation in perpetuity

Tax Reversion

Beginning as early as 1918, the State acquired a total of 78 acres through tax reversion, including 0.23 acres of land west of the Portage Canal

Exchange Acquisition

Two parcels totaling 31.85 acres were acquired in 1962 and 1963 through land exchange.



Leases

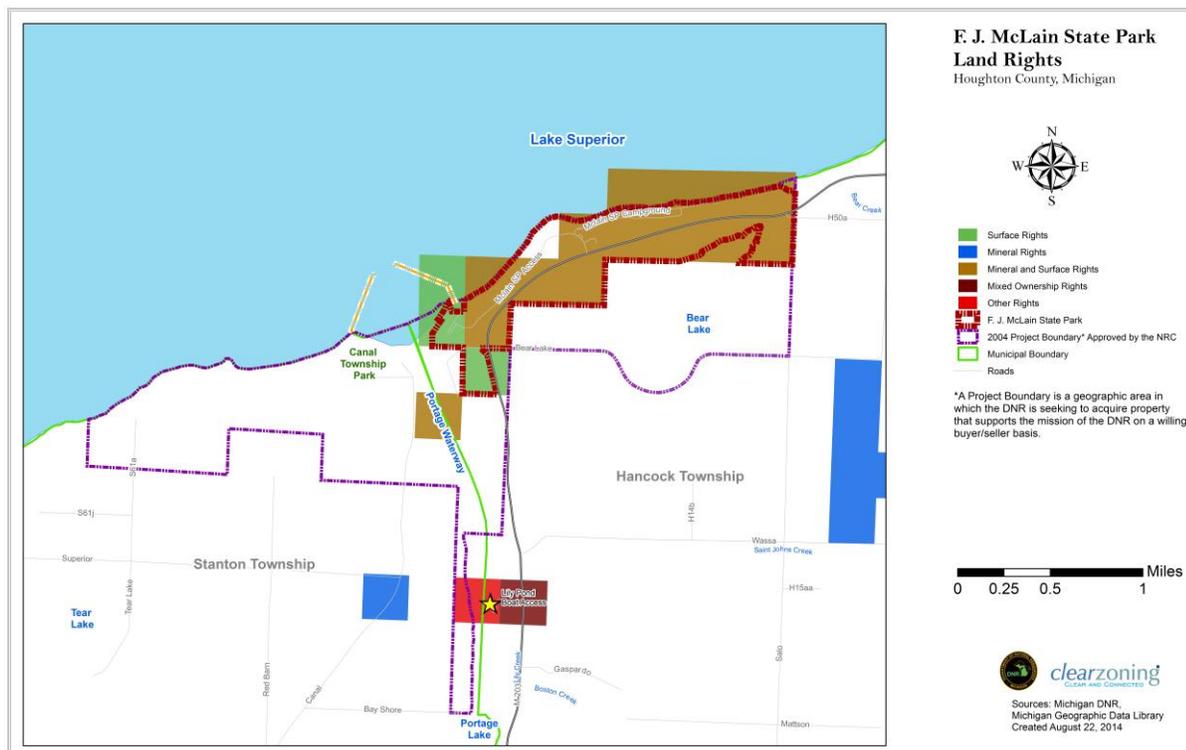
The following lease impacts the park:

- A 25 year lease from 1996 to 2021 from the Army Corps of Engineers for the purpose of public recreation located at the mouth of the Keweenaw Waterway. The State has the right to erect structures relating to public recreation on the property and the Federal Government has the right to enter the premises at any time and make other use of the land for any purposes necessary at the time. Restrictions include gambling, no commercial use of timber.

Easements

The following is a list of easements impacting F.J. McLain State Park

- 1953 to the Michigan Department of Transportation for M-203
- 1957 to the Michigan Department of Transportation for M-203
- 1984 to the Upper Peninsula Power Company for the purpose of transmitting electricity
- 1973 to the Michigan Department of Transportation for M-203
- There is a power line easement along the east side of Bear Lake



A.5 RELATIONSHIP OF F.J. MCLAIN STATE PARK TO OTHER RECREATION RESOURCES

F.J. McLain State Park is located on the 20 mile stretch of M-203 between Calumet and Houghton/Hancock. Being approximately 10 miles from each area, the park is a popular destination for road bikers that travel to see the historic sites nearby. Many of the attractions in the surrounding area are associated with the mining industry, including abandoned shaft houses, tram cars, spoil piles and ghost towns. The following are some of the recreational and cultural/historic resources in the area:

National/State Recreational Resources

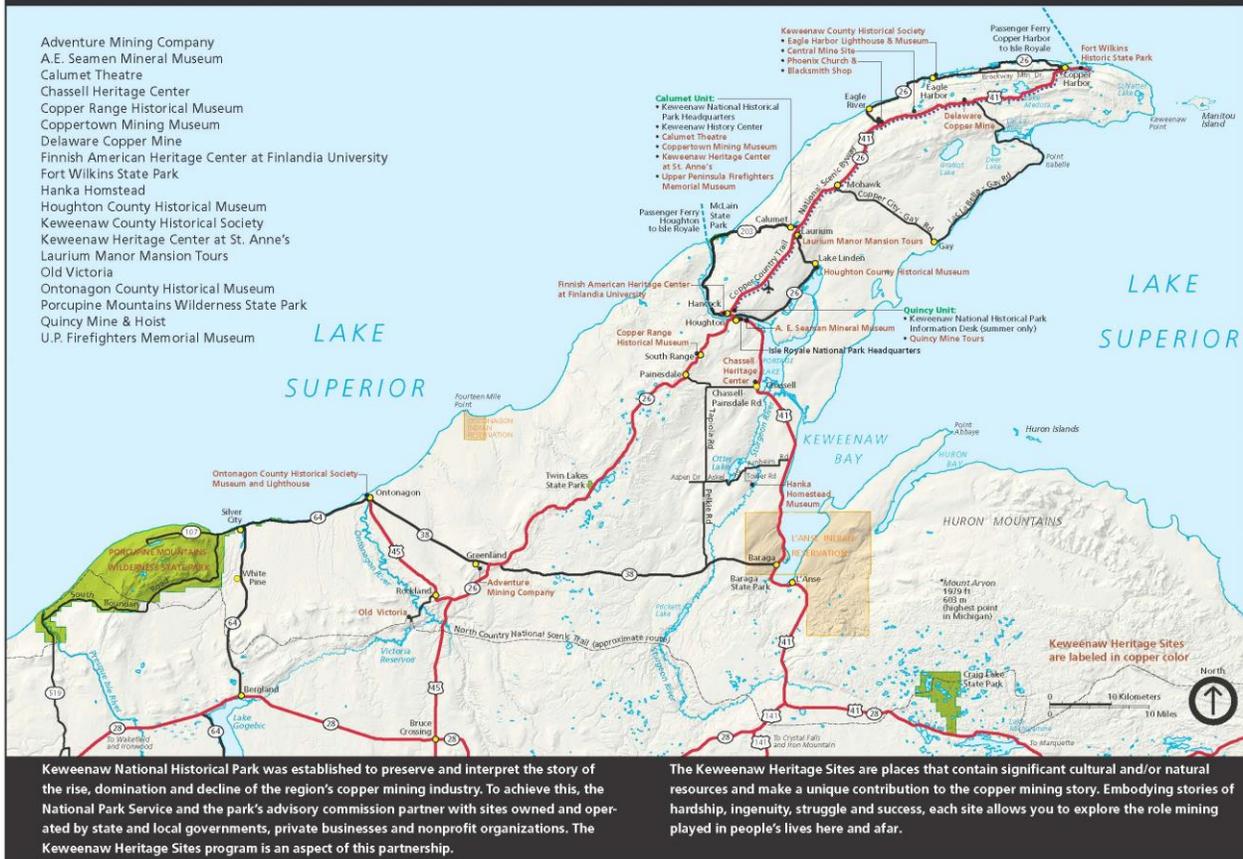
- Baraga State Forest Area – The State Forest lands in the Baraga unit comprise approximately 142,000 acres and are spread across a four county area. Recreation activities permitted within this area include camping, snowmobiling, and hiking. There are also ORV trails and rail-trails within the unit.
- Fort Wilkins State Historic Park – The 700-acre park is located approximately 43 miles northeast of F.J. McLain State Park in the tip of the Keweenaw Peninsula and features a restored military outpost from 1844 as well as one of Lake Superior’s first lighthouses. Visitors can watch live interpretive demonstrations of the history of the Fort. Additionally, the park offers a variety of overnight accommodations, hiking, swimming, fishing, biking, and picnicking.
- Twin Lakes State Park – Located approximately 30 miles south of F.J. McLain State Park, the 175-acre park features a lodge that sleeps up to eight people, a modern campground situated on a lake, swimming, picnicking, fishing, boating, as well as hiking, cross-country ski and snowmobile trails.
- Lily Pond Boat Access Site – Located approximately two miles south of the park on the portage canal, this hard surfaced ramp with paved parking is managed out of F.J. McLain State Park. It also provides a popular fishing access site. The property is operated under a lease agreement with the US Army Corps of Engineers.
- Keweenaw National Historic Park – The park is comprised of various Keweenaw Heritage Sites that are significant cultural and natural resources related to the copper mining industry within the region. The U.S. Congress established the Keweenaw National Historic Park in an effort to preserve and interpret these sites in partnership with local municipalities and organizations. The heritage sites are located along the length of the Keweenaw Peninsula. Several of these heritage sites are listed below.
- Isle Royale National Park – Located in Lake Superior, the park headquarters is located in Houghton. The park is accessible by ferry and a one-way ride from Copper Harbor takes approximately 3 hours. The park was designated as a Biosphere Reserve in 1981 in recognition of its unspoiled nature and is part of a program designed to protect examples of the different ecosystems of the world and to encourage research.
- Swedetown Creek Boating Access Site – This carry-in boating access site is owned by the City of Hancock and managed by F.J. McLain State Park under a lease agreement. Its location can be found on the “Recreation Opportunities Map” which is attached
- Hancock-Calumet (Jack Stevens) Trail – This 13.4 mile rail trail is designated for ORV and snowmobile use. The trail is also open for hiking, biking, and equestrian use and is managed by the DNR. While a small section of the trail is paved, the majority is unimproved.

- Snowmobile Trail 3 – Designated 166 mile snowmobile trail stretching from Ontonagon to Copper Harbor.

Heritage Sites

- A.E. Seaman Mineral Museum (Houghton) - Exhibits in the museum focus on the extensive influence that copper has had on the area by focusing on the geology of the Keweenaw Peninsula, copper formations, as well as the mining industry.
- Calumet Theatre (Calumet) - Built in 1899, the Calumet Theatre is the oldest municipal-built opera house in the country. The venue still offers a variety of shows including theatrical performances and concerts.
- Chassell Heritage Center (Chassell) - The heritage center highlights the history of the community as it has evolved from a fishing community, to a lumber town, to present day.
- Copper Range Historical Museum (South Range) - Exhibits at the museum focus on the Copper Range Mining Company and its workers. Additionally, Painesdale, one of the most well-preserved copper company towns, is located nearby.
- Coppertown Mining Museum (Calumet) - The museum hosts exhibits associated with the operations of the massive mining operation, Calumet & Hecla and features in the Calumet industrial landscape.
- Delaware Copper Mine (Copper Harbor) - This mine site provides tours of one of the oldest underground copper mines in the Keweenaw Peninsula.
- Finnish American Heritage Center & Historical Archive (Hancock) - The center hosts an art gallery, theater and the Finnish American Historical Archive, the largest collection of Finnish-North American material in the world.
- Houghton County Historical Museum - The museum exhibits artifacts associated with mining. Visitors are also able to ride behind a C&H Porter 0-4-0 Steam Engine.
- Quincy Mine & Hoist (Hancock) - The site hosts tours that explore the Quincy Mining Company including walk through surface structures, cogwheel tram rides and an excursion into underground mine works.
- Copper Country Firefighters Historical Museum (Calumet) - The historic Red Jacket Fire Station features exhibits about firefighting in Michigan's Upper Peninsula.

Keweenaw Heritage Sites



Keweenaw National Historical Park was established to preserve and interpret the story of the rise, domination and decline of the region's copper mining industry. To achieve this, the National Park Service and the park's advisory commission partner with sites owned and operated by state and local governments, private businesses and nonprofit organizations. The Keweenaw Heritage Sites program is an aspect of this partnership.

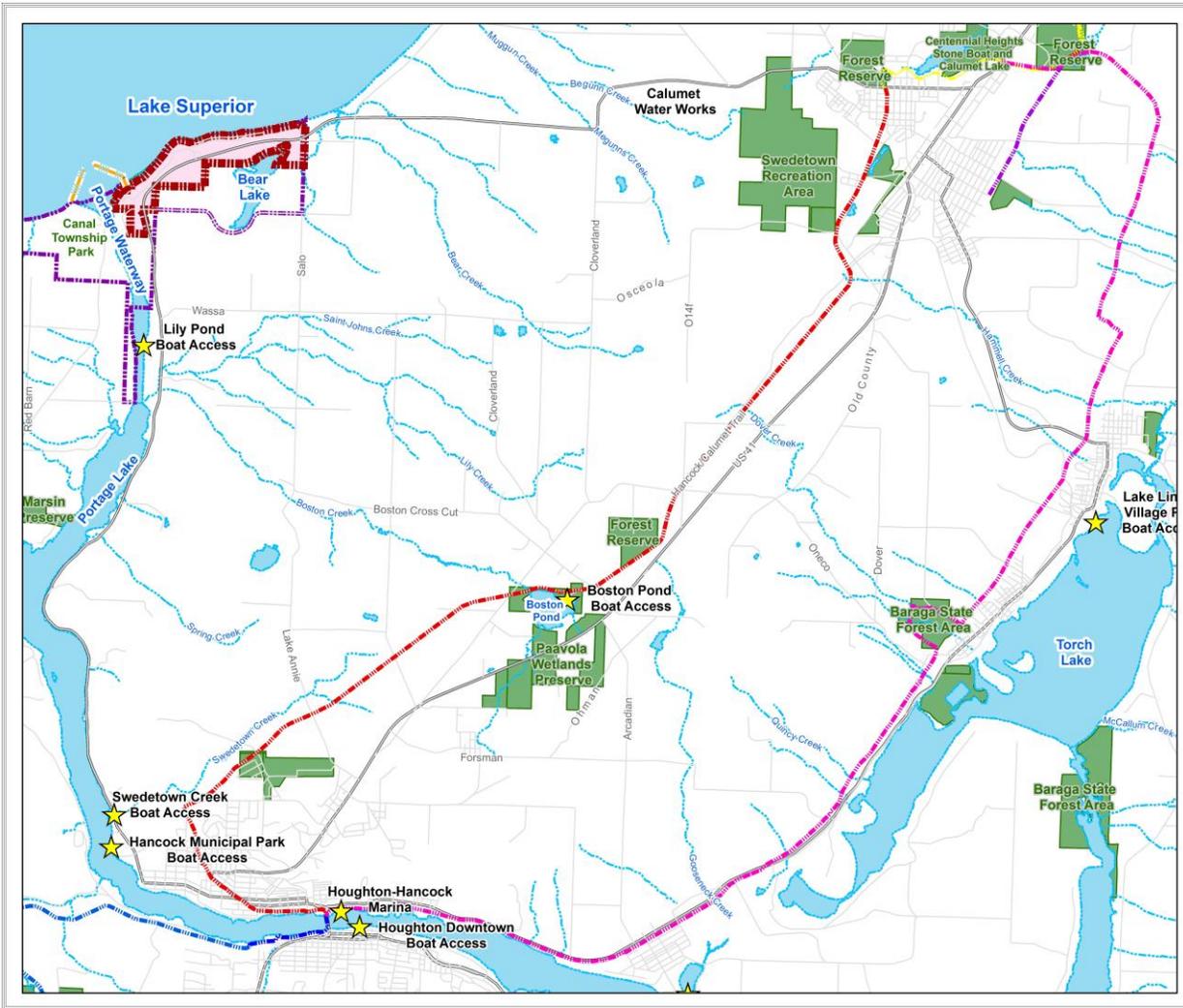
The Keweenaw Heritage Sites are places that contain significant cultural and/or natural resources and make a unique contribution to the copper mining story. Embodying stories of hardship, ingenuity, struggle and success, each site allows you to explore the role mining played in people's lives here and afar.

Local Parks and Trails

- **Hancock Beach (Hancock)** – Located on the west side of Hancock, the park is located on the north side of the Portage Canal and features a swimming beach with a wooden dock, boating access site, kayak launch, volleyball courts, a picnic shelter, and play equipment.
- **Hancock Campground (Hancock)** – Located adjacent to Hancock Beach, the campground offers 71 campsites, all of which are situated in a natural wooded setting.
- **Houghton County Marina** – Located in Hancock and just east of the Portage Lake Lift Bridge, the marina features 44 seasonal boat slips and 10 transient slips. Two ramps on the Portage Canal allow for easy access to the water. Additional amenities include electricity (30- and 50-amp service), restrooms, showers, gasoline, diesel, pump out, ice, boating launch, long-term parking, public phone, dog run, grills/picnic tables, cable hookups, laundry and marine supplies.
- **Maasto Hiihto Ski Trail & Churning Rapids Ski Trail** – A cross-country ski system that offers scenic views and varying terrains to challenge users of different abilities. The system includes approximately 15 miles of groomed trails operated and maintained through a joint agreement between the Keweenaw Nordic Ski Club and the City of Hancock.
- **Village of Lake Linden Campground and Beach** – Located on Torch Lake, the campground offers 20 full hook-up campsites and 6 rustic campsites as well as beach and swimming

area. A park, nature trail, skate park, and disc golf course area located in close proximity to the campground and beach.

- Village of Lake Linden Marina – Adjacent to the park is a modern docking facility with a boat launch.
- Schoolcraft Township Park – Situated on Grand Traverse Bay on the east side of the Keweenaw Peninsula, the park offers a sandy swimming beach and picnic area. Primitive camping is the only overnight accommodation available.
- Sunset Bay Campground (Private) – Located 17 miles northeast of F.J. McLain State Park on the Lake Superior shoreline, the Sunset Bay RV Resort & Campground provides 12 tent sites, 18 RV sites, and 3 cabins. Established in 1944, the Campground is one of the oldest in the Upper Peninsula.
- North Canal Park – Located in Stanton Township, the park includes 177 acres and 19 rustic, primitive campsites. The park is located on Lake Superior and is open to fishing, swimming, and boating.
- Swedetown Trails (Calumet Twp. and Houghton County Water Authority) – The 1,900 acre park offers an extensive system of mountain bike and cross country ski trails, many of which are groomed. The trails are maintained by the Swedetown Trails Club in cooperation with Calumet Township.
- Waterworks Park – Located on Lake Superior and 4 miles west of Calumet, the park offers swimming, hiking trails, a playground, and picnic facilities.
- Houghton RV Park – The canal-front park is located just a half mile from downtown Houghton and features 22 units for RV camping. Full-hookups and Wi-Fi are provided at the campground.
- Mont Ripley Ski Hill (MTU) – Located east of the City of Hancock, providing 112 acres of skiable terrain with 24 trails offering 440' vertical drop. Caters from beginner to expert with terrain parks with jumps and slides
- Michigan Tech Trails – over 55km of interconnected trails accommodating hiking, biking, snow-showing and cross-country skiing.
- Paavola Wetland Nature Area - A 115 acre public nature area located just outside of Hancock. It is home to year-round hiking trails for viewing a wide variety of flora and fauna.

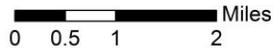


F. J. McLain State Park Recreation Opportunities Houghton County, Michigan



- F. J. McLain State Park
- 2004 Project Boundary* Approved by the NRC
- Lakes and Ponds
- Recreation Land
- Rivers and Streams
- Bill Nicholls Route
- Hancock to Laurium Trail
- Hancock-Calumet Trail
- Keweenaw Trail
- Larium Trail

*A Project Boundary is a geographic area in which the DNR is seeking to acquire property that supports the mission of the DNR on a willing buyer/seller basis.



Sources: Michigan DNR,
Michigan Geographic Data Library
Created December 8, 2014

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A.6 LEGAL MANDATES

For all park General Management Plans, legal mandates are identified that serve to further guide the development of the General Management Plan and subsequent Action Plans. For our planning purposes, the term “Legal Mandates” refers to not only state law, but also the administrative tools of “Policy” and “Directive” of the Natural Resource Commission, the Department, and the Parks & 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 F.J. McLain State Park, several legal mandates have been identified and are listed below:

PA 451 of 1994, Natural Resources & Environmental Protection Act (NREPA), Article 1, Part 5 Section 324.504: This law describes the DNR’s authority to make rules that support its mission.

- (1) “The department shall promulgate rules to protect and preserve lands and property under its control from depredation, damage, or destruction or wrongful or improper use or occupancy.”

The rules relate to camping, motorized vehicle use, control of animals, trail use etc.

Land Use Orders of the Director

The possession or use of alcohol in the park is prohibited during the K-Day welcome event held at the park every September by the students of Michigan Technological University.

PA 451 of 1994, Part 303 - Wetlands Protection, of NREPA, as amended.

The law requires that persons planning to conduct certain activities in regulated wetlands apply for and receive a permit from the state (DEQ) before beginning the activity. A permit is required for the following:

- Deposit or permit the placing of fill material in a wetland.
- Dredge, remove, or permit the removal of soil or minerals from a wetland.
- Construct, operate, or maintain any use or development in a wetland.
- Drain surface water from a wetland.

PA 451 of 1994, Part 325 – Great Lakes Submerged Lands (NREPA)

Any dredging, filling, modifying, constructing, enlarging, or extending of structures in Great Lakes waters or below the ordinary high water mark of the Great Lakes requires a permit. Permits are required by both the Water Resources Division within the Michigan Department of Environmental Quality (MDEQ), and the US Army Corps of Engineers. The purpose of this permit is to protect the waters of the Great Lakes and the Great Lakes bottomlands (the land lying below the ordinary high water mark).

PA 451 of 1994, Part 353 – Shoreline Protection and Management

- Administered by the DEQ
- Designates “Environmental Area” and “High Risk Erosion Area” and requirements related to their use.

The illustration on page 20 shows the 30-year and 60-year projected recession distance along the shoreline of F.J. McLain State Park and the high risk erosion area.

PA 451 of 1994, Part 419 - Hunting Area Control (NREPA)

Section 324.41901 establishes the powers of the Department to establish safety zones for hunting. F.J. McLain State Park is open to hunting south of M-203.

PA 451 of 1994, Part 741 - State Park System (NREPA)

Sec. 74102:

- (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.
 - (d) A holistic, integrated park system that reflects the unique value of both state and local parks is a goal of this state.
 - (e) State and local park planners should work in concert for a coordinated Michigan park and recreation plan.
- (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 the need to protect and manage those resources.

PA 451 of 1994, Part 761, Section 324.76102 – Aboriginal Records and Antiquities

- (1) The state reserves to itself the exclusive right and privilege, except as provided in this part, of exploring, surveying, excavating, and regulating through its authorized officers, agents, and employees all aboriginal records and other antiquities, including mounds, earthworks, forts, burials and village sites, mines or other relics, and abandoned property of historical or recreational value found upon or within any of the lands owned by or under the control of the state.
- (2) The state reserves to itself a possessory right or title superior to that of a finder to abandoned property of historical or recreational value found on the state owned bottomlands of the Great Lakes. This property shall belong to this state with administration and protection jointly vested in the department and the department of history, arts and libraries.

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 F.J McLain State Park.

PA 45 of 2010 - Natural Resource and Environmental Protection Act

Amends the Natural Resources and Environmental Protection Act (PA 451 of 1994) to require the DNR to establish a plan for a statewide trail network that includes Michigan trailways, pack and saddle trailways, and other recreational use trailways, and to permit pack and saddle animals on designated trailways managed by the DNR.

PA 46 of 2010 - Natural Resource and Environmental Protection Act

Amends the Natural Resources and Environmental Protection Act (PA 451 of 1994) with a finding that a statewide system of trails, trailways, and pack and saddle trailways is in the best interest of the state; requires the DNR to establish an “adopt-a-trail” program that allows volunteer groups to assist in maintaining and enhancing Michigan trailways, pack and saddle trailways, and rail-trails; and creates the Michigan Snowmobile and Trails Advisory Council within the department.

DNR Policy 26.04-04 - Use of State-Owned Lands Administered by the Michigan Department of Natural Resources (ISSUED: 02/01/2006)

It shall be the policy of the Natural Resources Commission (NRC) to manage State-owned lands in a manner that protects and enhances the public trust while providing for the use and enjoyment of those lands as outlined in the Natural Resources and Environmental Protection Act. Applications to use State-owned lands will be considered and may be approved if the proposed use is consistent with other public interest and natural resource values.

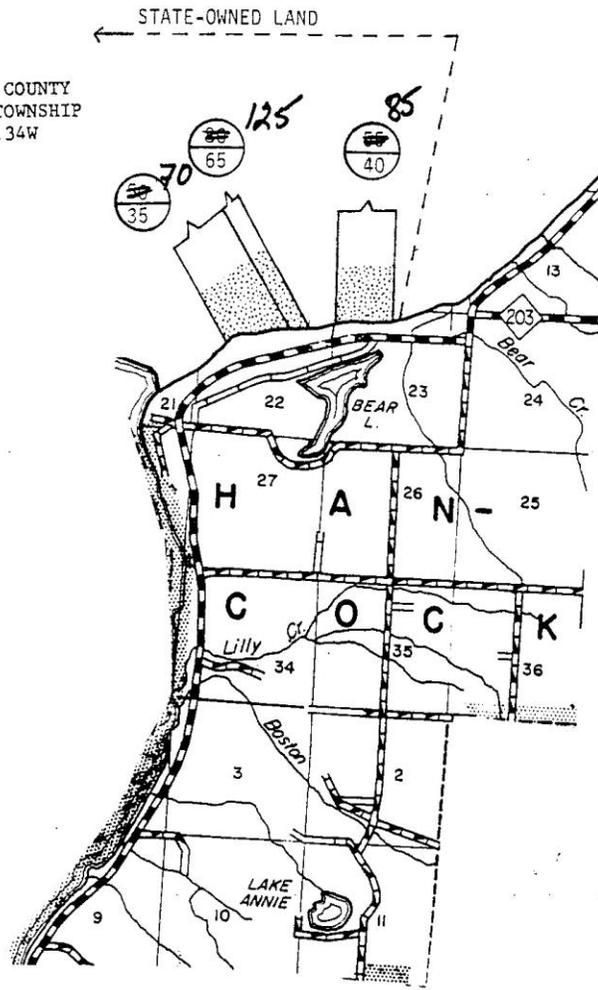
PA 368 of 1978, Article 12 - Environmental Health, Part 125 – Campgrounds – Part 125 of the Public Health Code

Established to protect and promote the public health by establishing health code requirements and regulations that all public (including DNR) and private campgrounds must meet. Campground wastewater system must meet the construction permit, design, and operation requirements under Michigan’s Public Health Code.

PA 451 of 1994, Part 22 – Campground Wastewater Systems

These rules apply to all campground wastewater systems and regulate discharges to groundwater; administered by the Water Division, Groundwater Discharge Unit.

HOUGHTON COUNTY
HANCOCK TOWNSHIP
T.56N R.34W



WIDE SHADED BAND
DEMARKS HIGH RISK
EROSION AREA

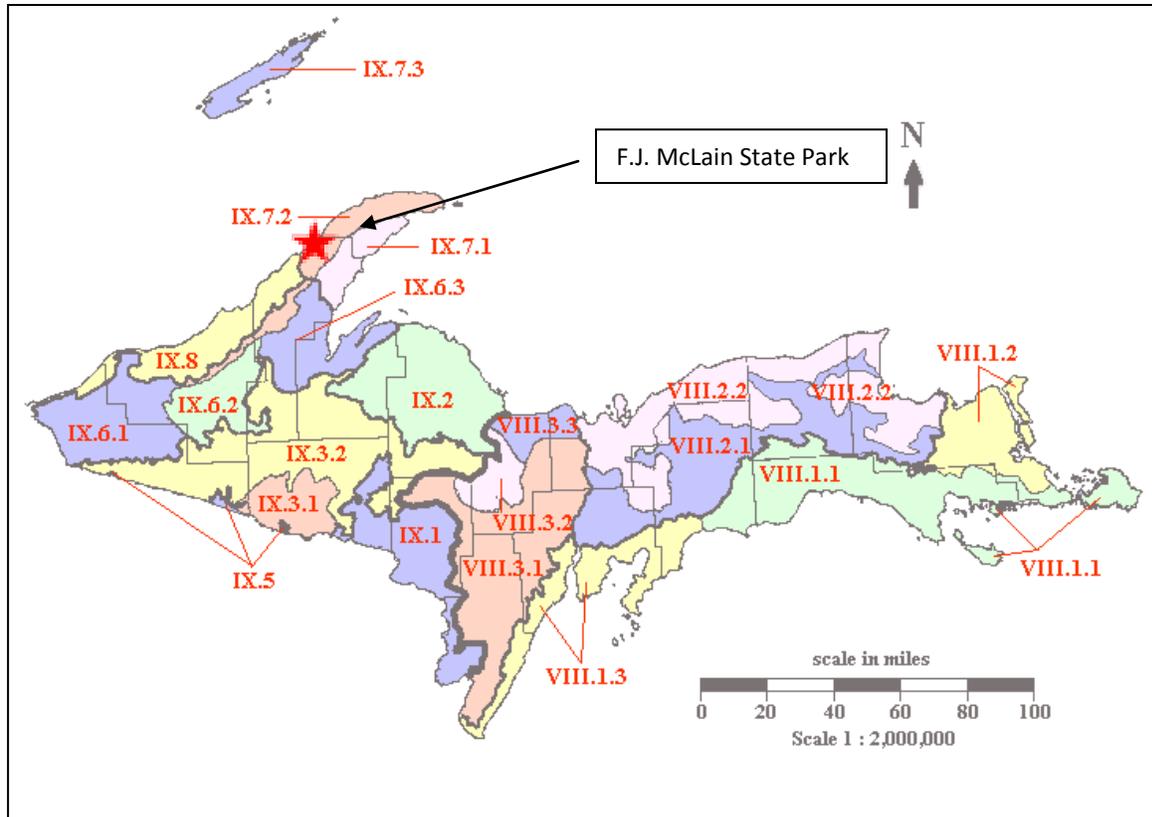
60-year projected recession distance
30-year projected recession distance

A.7 NATURAL SYSTEMS AND NATURAL RESOURCES

Eco-Regional Context

The following information was obtained from Regional Landscape of Michigan and Wisconsin. A working Map and Classification. Dennis Albert, September 20, 1995.

Regional Landscape Ecosystems of Michigan's Upper Peninsula



Source: <http://www.npwrc.usgs.gov/resource/habitat/rlandscp/s9-7-2.htm>

F.J. McLain State Park is located in sub-subsection IX.7.2, which is noted for steep ridges of Keweenaw (late Precambrian) basaltic lavas and conglomerates rising several hundred feet above the adjacent lake and till plains. The ridges of the Keweenaw Peninsula are part of the Lake Superior syncline, which extends from northern Wisconsin to the tip of the Keweenaw Peninsula of Michigan.

Climate

Lake Superior significantly controls the climate of the Keweenaw Peninsula, keeping winters milder than those in surrounding areas. Spring is cool and brief, transitioning into a summer with highs near 70 °F (21 °C). Fall begins in September, with winter beginning in mid-November. The area receives an average of 220 inches of snowfall annually due to lake-effect.

Geology

The ancient lava flows of the Keweenaw Peninsula were produced during the Mesoproterozoic Era as a part of the Midcontinent Rift. This volcanic activity produced the only strata on Earth where large-scale economically recoverable 97 percent pure native copper is found.

Much of the native copper found in the Keweenaw comes in either the form of cavity fillings on lava flow surfaces which has a *lacy* consistency, or as *float" copper*, which is found as a solid mass. Copper ore may occur within conglomerate or breccia as void or interclast fillings. The conglomerate layers occur as interbedded units within the volcanic pile.

The Keweenaw Peninsula and Isle Royale, formed by the Midcontinent Rift System, are the only sites in the country with evidence of prehistoric aboriginal mining of copper. Artifacts made from this copper by these ancient Indians were traded as far south as present day Alabama. These areas are also the unique location where Chlorastrolite (Michigan Greenstone), the state gem of Michigan, can be found.

The primary geological make-up of F.J. McLain State Park is Lacustrine sand and gravel.

Shoreline Erosion

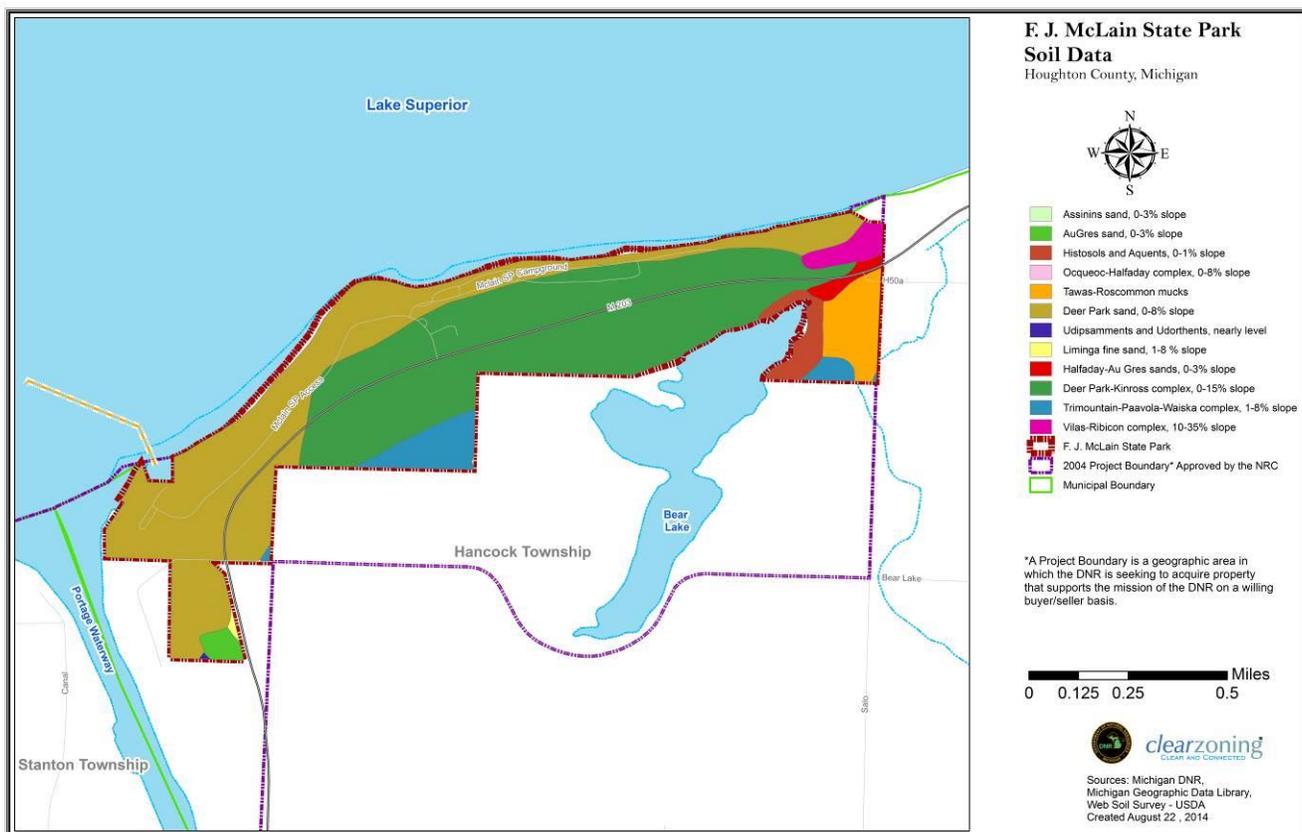
In 1997, the DNR paid the Corps of Engineers to conduct a study under Section 22 of the Water Resources Act of 1974 to determine the cause of the rapid erosion of the shoreline effecting F.J. McLain State Park. The study concluded that the upper navigational structure built by the Corps of Engineers effectively blocked shore transport of sand from the south. For many years, the dredged sand from the Keweenaw Waterway was deposited on the beaches of McLain State Park, which prevented further erosion to the north. When dredging ceased in the late 1970's, the deposited sand eventually eroded and exposed the northern bluffs to the rapid erosion we see today. The Corps and the University of Michigan concluded that further shoreline protection measures and the application of dredge sand was not cost effective and recommended in this study to relocate and rebuild the campground and other threatened park facilities on stable ground.

A study conducted in 2001 concluded that additional research regarding shoreline erosion at the park is needed. Thus, current efforts are focusing on the specific locations where erosion occurs. In particular, a geophysical survey is underway for the purpose of examining the depth of bedrock to determine high and low risk erosion areas. In consultation with the state geologist and the Department of Environmental Quality (DEQ), the study is planned for the summer of 2014. The Planning Team recognizes that shoreline erosion at the park is a serious and costly issue that should be at the forefront of future planning and management.

Soils

The majority of the park is Deer Park- Kinross complex, 0-15% slopes and Deer Park sands 0-8% slopes. Soils found on site are illustrated by the following map and the main soil types described below:

Soil Descriptions



- Au Gres sand, 0-3% slope** soils are very deep, nearly level, somewhat poorly drained soils found on broad plains and in depressions and drainageways. These irregular or long and narrow shaped soil areas range in size from 5 to 200 acres. The top 1 inch of soil is usually black, well decomposed forest litter. The remaining surface layer consists of light brownish gray, mottled sand about 19 inches thick. Subsoils are dark reddish brown, reddish brown, and yellowish red, loose sand about 20 inches thick. Some areas of the soil are gravelly or very gravelly sand throughout. Permeability is rapid and the seasonally high water table is at a depth of 0.5 to 1.5 feet in the spring and other excessively wet periods. Available water capacity is low and runoff is very slow.

Soils are droughty during dry periods and have a seasonably high water table, which can lead to seedling losses of 25% – 50%. The seasonal high water table also leads to shallow rooted trees. This can create the potential for trees to be blown down during excessively wet periods with high winds.

- Histosols and Aquepts, 0-1% slope** soils are nearly level, poorly drained, and found in depressions and along streams and lake edges. They consist of a high water table at or above the surface throughout the year. Histosols soils are organic, while the Aquepts are sandy and loamy. The soil areas may consist of solely Histosols, Aquepts, or a combination of both. Up to 20% of the areas may consist of open water.

The soil lands are mostly marsh, consisting of cattails, reeds and grasses. Clumps of trees and shrubs can be found along the edges of the soils mapping areas. Wildlife such as waterfowl, beavers, muskrats and other wetland animals frequently inhabit these areas.

- **Tawas-Roscommon mucks** are very deep soils that are nearly level and found in depressions and drainageways. Both soils are poorly drained, thus subject to ponding. The surface layer of Tawas soils are dark reddish brown muck extending to a 4 inch depth. This is followed by 16 inches of very dark gray and black muck. Roscommon's surface layer consists of black muck and mucky sand extending approximately 6 inches in depth. Its upper substratum is light brownish gray and pale brown sand to a depth of 60 inches. For Tawas mucks, permeability is moderately slow to moderately rapid in muck layers and rapid in the substratum. Roscommon soils have rapid permeability. For both soils, the seasonally high water table is near or above the surface during the spring and excessively wet periods. Both soils have a runoff that is very slow or ponding, while available water capacity is high in Tawas soils and low in Roscommon.
- **Deer Park sand, 0-8% slope** soils are very deep, nearly level and undulating. This excessively drained soil can be found located on beaches and dunes. The surface of the soil consists of approximately 2 inches of partially decomposed, black leaf litter. The remaining surface layer is black sand to a depth of 4 inches. Pale brown sand to a depth of approximately 20 inches makes up the subsurface. Permeability is rapid and the soil has a low available water capacity and very slow runoff.

These soils are primarily used as woodlands with major management concerns consisting of equipment limitations and seed mortality. In heavily traveled areas, heavy equipment has a hard time gaining traction in the loose sands. This problem is exacerbated during dry periods. The very dry soils can lead to 25% to 50% seedling losses.

- **Halfaday-Au Gres sands, 0-3% slope** soils are irregular shaped areas ranging from 5 to 500 acres. The Halfaday portions of this sand consist of very deep, nearly level, moderately well drained soils found on low knolls. Au Gres portions of this sand are deep, nearly level, somewhat poorly drained soils found in slight depressions. These two soils are very intricately mixed. The top 1 inch of Halfaday soil is composed of partially decomposed forest litter on the surface. The remaining surface layer of the soil is pinkish gray sand to a depth of about 3 inches. Approximately the next 27 inches of subsoil are dark reddish brown, yellowish red and strong brown friable sand. The top 1 inch of Au Gres soil is well decomposed, black forest litter on the surface. Light brownish gray, mottled sand to a depth of about 19 inches make up the rest of the surface layer. Dark reddish brown, reddish brown and yellowish red loose sand make up the subsoil to a depth of approximately 20 inches. Both soils have rapid permeability. The seasonally high water table is at 2.0 to 3.5 feet for Halfaday soils and 0.5 to 1.5 feet for Au Gres. Available water capacity for both soils is low and runoff is slow.
- **Deer Park-Kinross Complex, 0 – 15 % slope** soils are very deep and found on plains. The Deer Park soils are level to rolling, excessively drained and found on dunes and low ridges. In contrast, Kinross soils are nearly level, poorly drained soils subject to ponding that are found in swales and depressions. These soils are very intricately mixed. The top 2 inches of Deer Park soil are black, partially decomposed leaf litter at the surface. Black sand to a depth of 4 inches makes up the rest of the surface layer. The subsurface layer consists of brown and yellowish brown loose sand to a depth of 20 inches. The top 3 inches of the surface area for Kinross soils is black muck. Pinkish gray sand to a depth of 6 inches makes up the subsurface layer. In both soils the permeability is rapid and available water capacity is low. The seasonally high water table is near or above the surface during the excessively wet

periods and the spring for Kinross soils. Kinross soils also have very slow runoff or ponding of water. Deer Park soils have very slow runoff.

These soils are typically used as woodlands. The major management concerns associated with the soils are equipment limitations, seedling mortality, windthrow hazard, and plant competition. The very wet Kinross soils should only have equipment be used during dry periods or periods of adequate snow cover or when roads are adequately frozen. Due to droughtiness of the Deer Park soil and the wetness of the Kinross soils, seedling losses can be as high as 50%. The wetness of the Kinross soils leads to shallow rooting of trees, which can lead to them being blown down during high wind periods.

- **Trimountain-Paavola-Waiska complex, 1 to 8% slope** soils are very deep, nearly level and gently sloping soils found in low knolls and broad plains. The top 1 inch of Trimountain soil is composed of black, decomposed forest litter. The rest of the surface layer is a dark reddish gray cobbly fine sandy loam to a depth of 4 inches. The complex subsoil is 41 inches in depth. The top 2 inches of Paavola soil are composed of undecomposed forest litter at the surface. The remainder of the surface layer is dark reddish brown gravelly coarse sandy loam to a depth of 4 inches. The subsoil extends to a depth of 53 inches. The top 1 inch of Waiska soil is comprised of partially decomposed forest litter. The remainder of the surface layer is brown sand to a depth of 6 inches. The subsoil extends down to a depth of 29 inches.

The permeability of these soils varies. Trimountain soils have moderate permeability in the upper layers, very slow permeability in the middle portion, and moderate or moderately rapid permeability in the lower portions. Paavola permeability is moderate to very rapid in the upper portions, very slow in the middle portion, and moderate to very rapid in the lower portion. Waiska soil has very rapid permeability. The seasonal high water table in the Trimountain and Paavola soils is perched at a depth of 1 to 2 feet in the spring and other excessively wet periods. Runoff for all of these soils is slow. Available water capacity is low in the Trimountain soil and very slow in the other two soils.

- **Vilas-Rubicon complex, 10 to 35% slope** soils are very deep, gently rolling to steep, excessively drained soils that can be found in knolls, ridges, and alongside slopes. They are generally comprised of 45% to 60% Vilas soils and 35% to 50% Rubicon soils. The two soils are very intricately mixed. The top 1 inch of Vilas soil is comprised of partially decomposed forest litter. The remaining surface layer extends to a depth of 2 inches and is brown loamy sand. The subsoil extends to a depth of 33 inches and is dark brown and strong brown, very friable loamy sand in the upper portion and strong brown, friable sand in the lower portion. The top 1 inch of the Rubicon soils is black, well decomposed forest litter. The remaining portion of the surface layer is brown sand that extends to a depth of 4 inches. The subsoil extends to a depth of 24 inches and is comprised of dark brown and brown, very friable sand. Permeability is rapid in the Rubicon soil and in the upper portion of the Vila soil. Available water capacity is low in both soils and runoff is slow.

Topography

F.J. McLain State Park is generally flat at 640 feet above sea level with steep slopes at the Lake Superior shoreline at 607 feet above sea level.

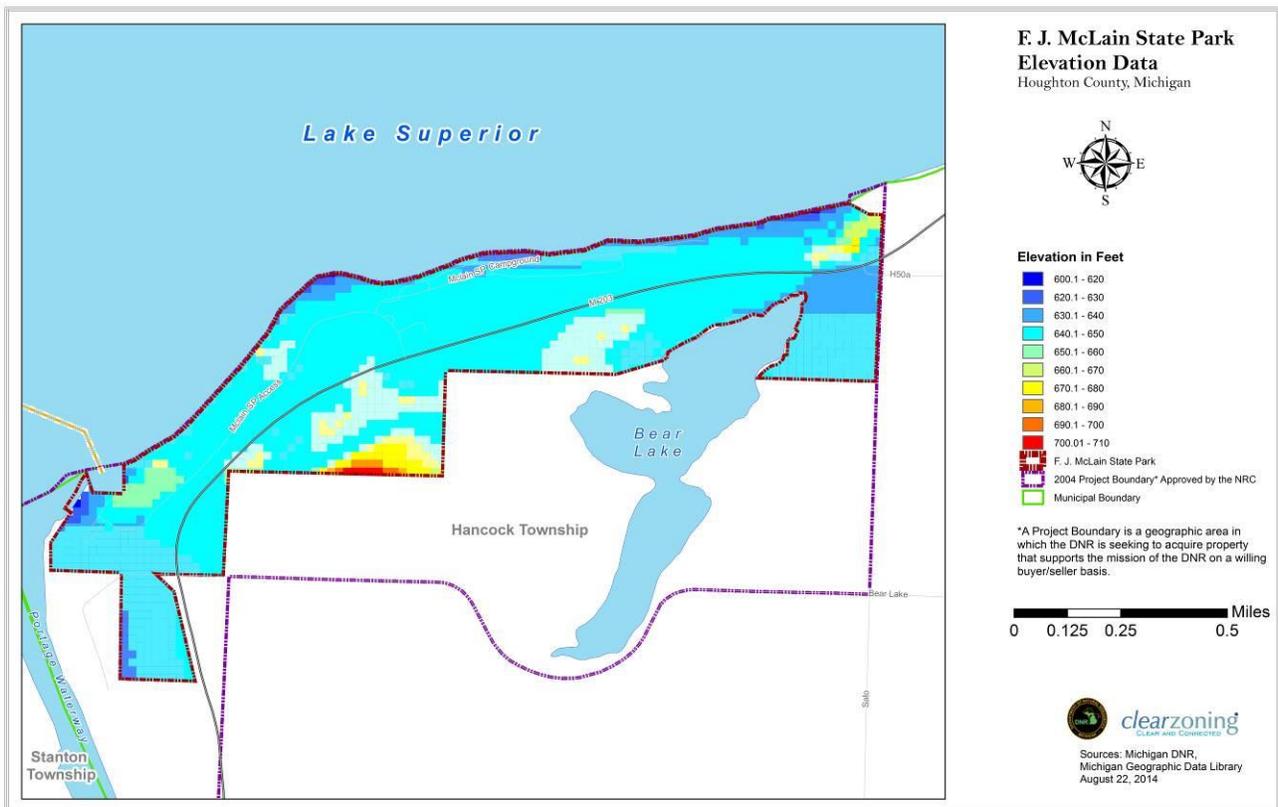
Water Resources

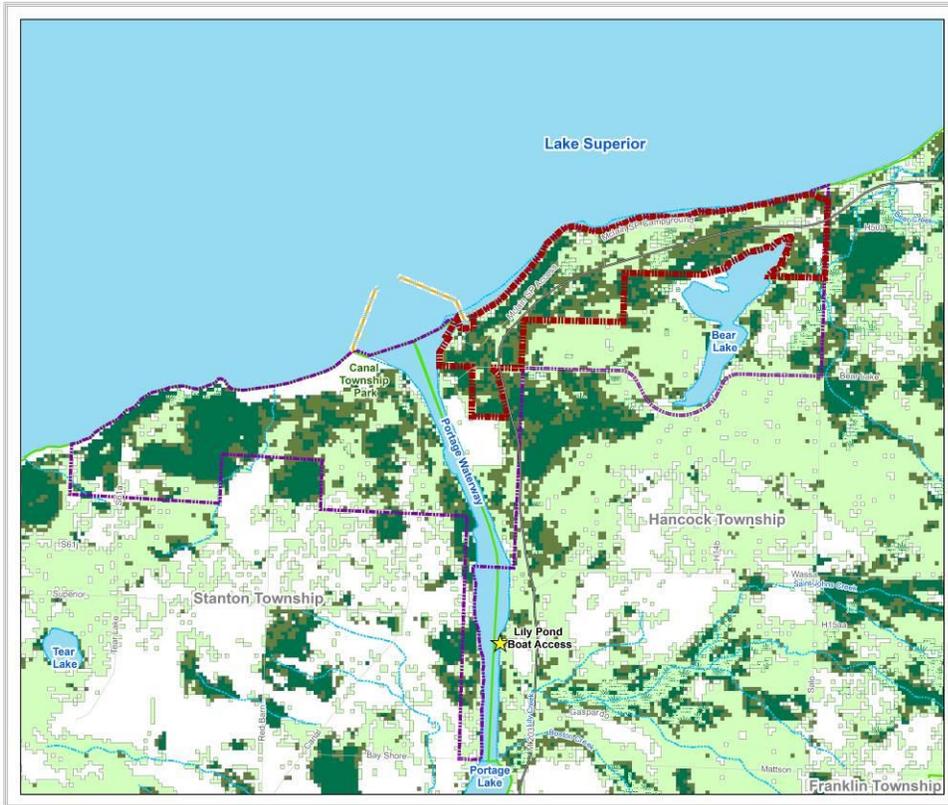
Houghton County hosts numerous inland lakes. The park itself is most significantly impacted by the waters of Lake Superior, Bear Lake (116 acres per DNR lake topography maps - bathymetric maps) and the Keweenaw Waterway. The Keweenaw Waterway is now seldom used by lake freighters. Modern, large freighters can no longer navigate the waterway. The

closing of the mines means that shipping from the Keweenaw is much reduced and there is a reduced need for refuge due to modern equipment. The channel is still used by pleasure craft.

Land Cover

The area of F.J. McLain State Park was historically dominated by a mix of pine and oak on the west half of the park and aspen on the east. The majority of the original land cover and hardwood trees were removed from the lands of and surrounding the park during the aggressive lumbering of the area in the 1860s-1890s. Since the logging in the late 1800's, forests have regrown in the park with a mixture of hardwoods and pines with the developed portions of the park remaining open.





**F. J. McLain State Park
Woodlands**
Hancock Township
Houghton County, Michigan

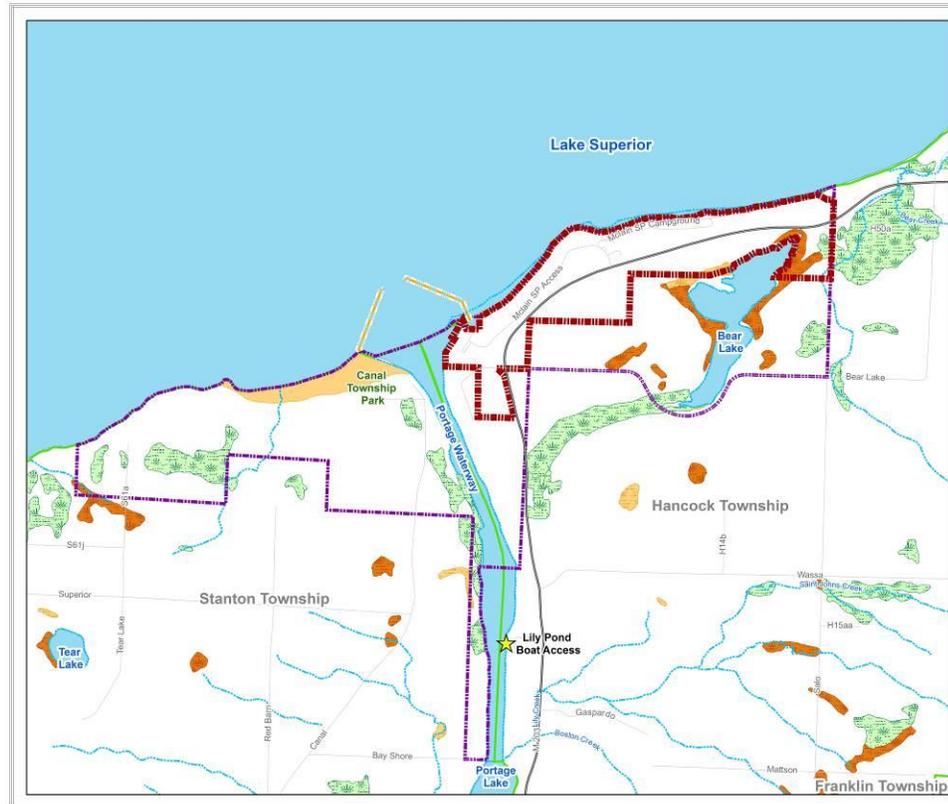


- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Wooded Wetlands
- F. J. McLain State Park
- 2004 Project Boundary* Approved by the NRC
- Municipal Boundary
- Roads

*A Project Boundary is a geographic area in which the DNR is seeking to acquire property that supports the mission of the DNR on a willing buyer/seller basis.



Sources: Michigan DNR,
Michigan Geographic Data Library
Created August 22, 2014

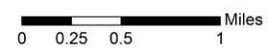


**F. J. McLain State Park
Wetlands**
Houghton County, Michigan



- Beach/Bar
- Emergent
- Forested
- Scrub-Shrub
- F. J. McLain State Park
- 2004 Project Boundary* Approved by the NRC
- Municipal Boundary
- Roads

*A Project Boundary is a geographic area in which the DNR is seeking to acquire property that supports the mission of the DNR on a willing buyer/seller basis.



Sources: Michigan DNR,
Michigan Geographic Data Library
August 22, 2014

Threatened and Endangered Species

No threatened or endangered species are currently known to occur at McLain State Park. Bald eagle (state special concern) and peregrine falcon (state endangered) have both nested within a few miles of the park and have potential to use the park. A sandstone lakeshore cliff natural community, supporting a population of the special concern plant butterwort (*Pinguicula vulgaris*) occurs about a mile west of the park. There is some potential for these or other rare species to be found at the park in the future.

Wildlife

F.J. McLain State Park's geographic location on Lake Superior and the Keweenaw Peninsula make it attractive as a stopping point for neo-tropical migrants and migrating shorebirds and waterfowl. Trees along the shoreline edge are used by insect eating songbirds as perches from which to hunt for hatching insects or resting out of the wind. Bear Lake is important for foraging shorebirds and for waterfowl seeking shelter from Lake Superior. Year round resident wildlife such as white-tailed deer, mink, coyote, fox and squirrels are common species that may be found using the park's natural resources. The oak component of the park in particular is an attraction for many of these species.

Fisheries

In 1874, a 22-mile canal was completed between the northwest end of Portage Lake and Lake Superior which allowed ships to bypass the trip around the Keweenaw Peninsula and provided a harbor of refuge. One of the outlets of Portage Lake is the Portage Canal at the north entry. Here the Lily Pond boating access site offers a convenient place to launch boats or a place to fish from shore.

Fish communities in the vicinity of the F.J. McLain State Park are comprised of 37 different species consisting of both Lake Superior coastal types as well as inland compositions from the Portage Canal system. Typically lake trout, lake whitefish, and pacific salmon (Coho, Chinook) are found in the Lake Superior shoreline waters, while the Portage waterway fish includes walleye, northern pike, yellow perch, rock bass, bluegill, pumpkinseed sunfish, black crappie, smallmouth bass, black bullhead, largemouth bass, and smallmouth bass. Lake sturgeon, a state threatened species is also found in both the Lake Superior and Portage Canal waters near F.J. McLain State Park. Fishing for lake sturgeon in this area is limited to hook-and-line and catch-and-immediate-release from July 16 through November 30.

Fishing rules and regulations are in place that control harvest seasons, size and catch limits. A fishing license is required for persons 17 years of age or older. Those under 17 years old may fish without a license, but are required to observe all fishing rules and regulations.

A.8 HISTORIC AND CULTURAL RESOURCES

There are no above ground structures at F. J. McLain State Park that are eligible for listing on the National Register of Historic Places.

As of 2012, there are eight known archaeological sites located within F. J. McLain State Park boundaries. These sites consist of two prehistoric sites, two historic period sites, two historic period isolated find locations, one pre-World War II location, and a historic period shipwreck site (which was located on the beach). Generally, isolated finds are transportable artifacts representing a single activity or event. A single feature may be considered an isolated feature.

In 2012, an archaeological investigation was conducted at F.J. McLain State Park on behalf of U.P. Engineers & Architects, Inc. by the Public Service Archaeology & Architecture Program of the University of Illinois at Urbana-Champaign. The university investigation included a literature review, review of the state archaeological site files, and a Phase I archaeological reconnaissance survey of approximately 264 acres (107 hectares) within a portion of F.J. McLain State Park in advance of proposed park redevelopment and improvements.

The background research indicated the presence of four previously reported archaeological sites within F.J. McLain State Park and the Phase I archaeological reconnaissance survey yielded 4 new sites within the designated survey area. The reconnaissance survey found that the majority of the investigated property was largely undisturbed, but that existing campground, cabin area and day use areas had been moderately to significantly impacted by the park infrastructure.

The 264 acres surveyed yielded two new historic period archaeological sites, two new historic period isolated find locations, redefined a previous historic period shipwreck site and revisited a known prehistoric site. The other two known archaeological sites were not in the designated 264 acres surveyed by the University of Illinois at Urbana-Champaign.

Given the data documented at the prehistoric sites, it is recommended these sites be avoided due to the potential for the sites to contain artifacts of a sensitive nature. If site avoidance is not possible, it is recommended for archaeological monitoring should any of the proposed development or improvement project be under taken in or adjacent to the mapped site area.

A.9 EDUCATIONAL, INTERPRETATION, AND RECREATION EVENTS

- Michigan State Park Explorer Program - a summer program offered at 41 Michigan State Parks to campers and day visitors. The program arms participants with field gear (animal skins, bug boxes and hands-on materials) and a guide for informal hikes and other programs. These activities cater to each parks' unique physical and cultural resources, targeting both children and adults. A partnership between the Michigan Department of Natural Resources (MDNR) Explorer Program and Michigan Technological University has allowed F.J. Mc Lain State Park to host astronomy programs during the summer months.
- The Portage Canal Run - an annual event held in July which has begun from inside the park since 1981. The run is organized by a group of volunteers representing Portage Health, and typically sees close to 1,000 participants.
- “K-Day” (Keweenaw Day) – a long-standing tradition for students of Michigan Technological University in which students celebrate the beginning of the new academic year by setting up displays and participating in activities at the park. There is also food and music available to students. The event takes place each year in September and is typically attended by 6,000 students.



K-Day is an annual event at the park

A.10 RECREATION RESOURCES

Beach

- The park offers two miles of sandy beach, which extends to the seawall leading to the lighthouse.

Biking

- On paved surfaces and unofficial woodland paths

Camping

- The park features 103 modern camp sites most of which offer spectacular views of Lake Superior.



The campground offers beautiful views of Lake Superior

Cabins

- There are six mini cabins called Oaks, Pines, Aspens, Cedars, Hemlocks, and Maples
- There is one rustic cabin called Birches

Cross Country Skiing and Snowshoeing

- Users are able to ski and snowshoe along four miles of hiking trails located in the park.



The lighthouse is a maritime resource at the park

Games

- Volleyball courts and horseshoe pits are available at the day-use areas.

Hiking

- There is a total of four miles of hiking trails in the park.

Hunting

- The area south of M-203 is open to hunting during appropriate hunting seasons.

Lighthouse

- The Keweenaw Upper Entrance Lighthouse was built in 1950. The lighthouse, managed by the U.S. Coast Guard, is a scenic feature which can be viewed from the park.

Kayaking

- F.J. McLain is located along the Keweenaw Water Trail, which circles the tip of the Keweenaw Peninsula. Kayakers may spend the night at the park.

Picnicking

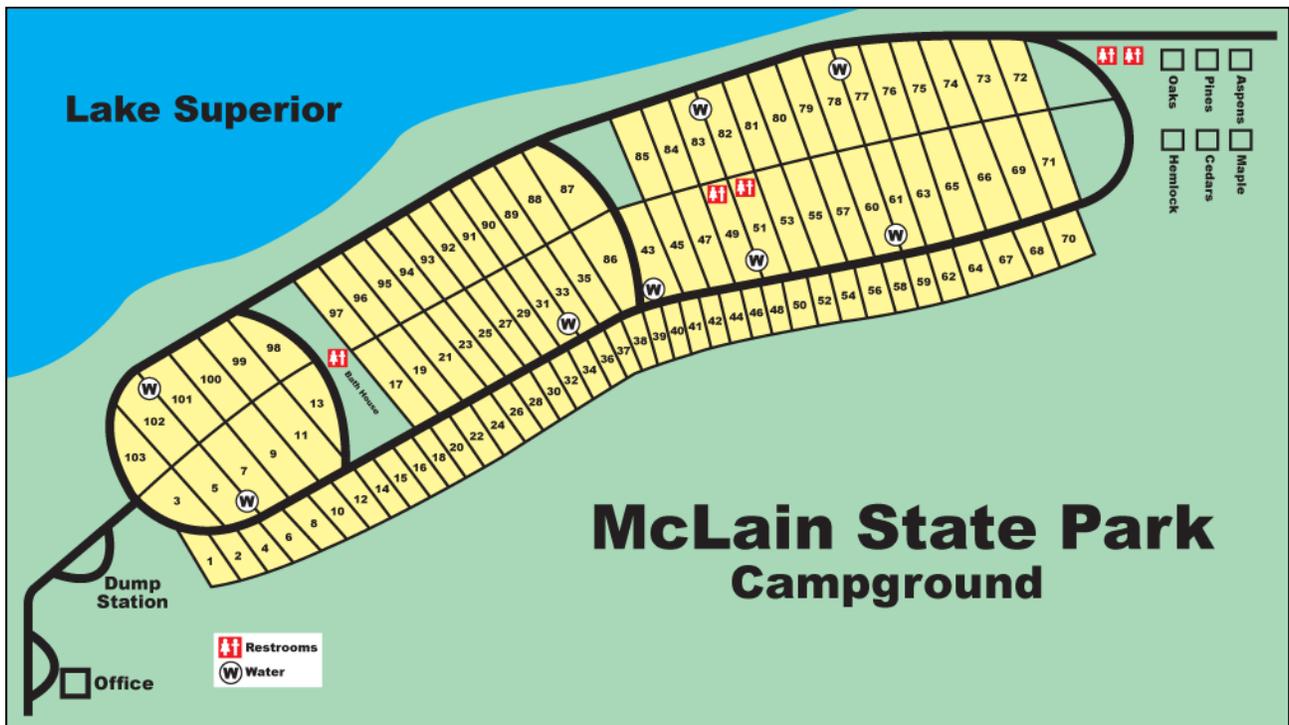
- There are three picnic shelters that are available for reservation. Two of the shelters have fireplaces.

Playgrounds

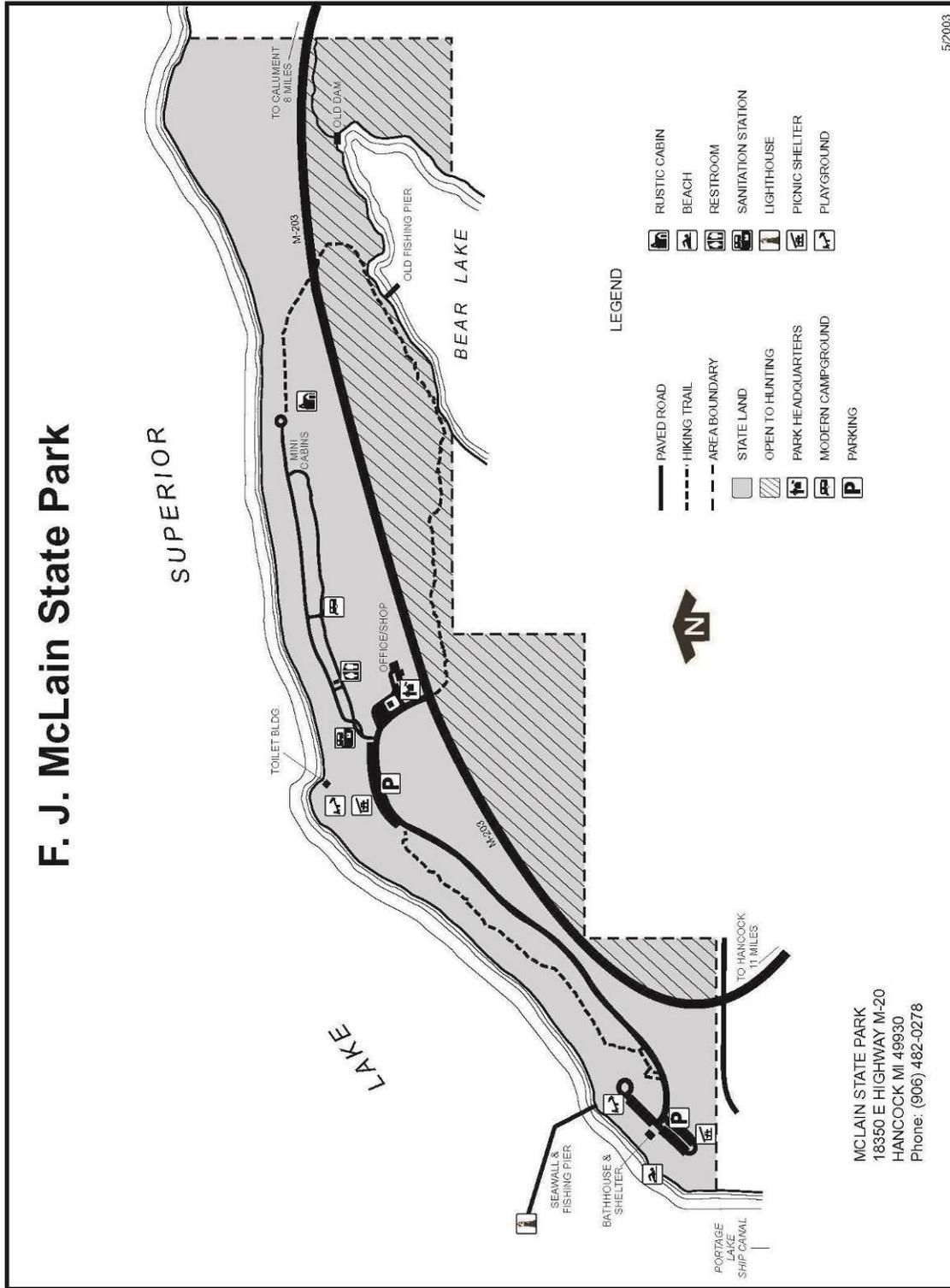
- A playground is located at both day use areas.

Swimming

- The swimming area is located on the southwest side of the seawall in the southernmost day-use area. It is not a designated swimming area. The nearby lighthouse pier buffers the incoming waves on Lake Superior and shelters the swimming area. The day-use area also provides a bathhouse and shelter.



F. J. McLain State Park



5/2003

A.11 ISSUES AND OPPORTUNITIES

The main issue at F. J. McLain State Park is currently shoreline erosion, which is threatening park buildings, cabins and other infrastructure. Specifically, erosion has already claimed campground roads and campsites and is currently threatening the campground toilet/shower building, additional campground roads, campsites and cabins, as well as utilities that serve the campground and day use toilet building. A sewer line in the central day use area is now only 10 feet from the eroding bank.

- Day users park in the campground parking lot rather than the day use parking area. This results in a lack of available parking for campground users as well as congested campground roads.
- Park users access the beach in ways that accelerate the rate of erosion. Additional education is needed at High Risk Erosion areas to inform park users about erosion and how they can help minimize their impact on erosion.
- The stamp sand on the day use beach is not appealing to users.
- Campground roads are used by both motor vehicles and bicyclists which poses safety concerns.
- The potential future relocation of park amenities, including the campground, could impact the existing aquifer and availability of water at the park.
- Shoreline erosion is an urgent and significant issue at the park that should remain at the forefront of future planning and management. Shoreline erosion also provides an important research and education opportunity for research organizations and universities.



Shoreline erosion is a major issue at the park



Stamp sand at the day use beach

A.12 PARK USE STATISTICS AND ECONOMIC IMPACTS

Park Use

The total number of day-use visitors for 2012 was 46,519 and the total number of campers was 103,010. Total revenues (camping fees) generated by the park in 2012 was \$ 325,576.00

A characterization of park use is described as follows (based on 2012 MDNR-Park Attendance Statistics):

Day-use

- Summer Use Season – This is defined as the three-month period of June through August, when schools are not in session. This is the busiest season for the park, as 65% of all day-use takes place during these months.
- Fall Use Season – The fall season is defined by the months of September through November. An estimated 21% of all day-use takes places within this season.
- Winter Use Season – December through March marks a significant decline in park use, as only 5% of its day-use occurs during this time.
- Spring Use Season – April through May shows gradual increase in park use with day-use at 9%.

Camping

- Summer Use Season – This is defined as the three-month period of June through August, when schools are not in session. This is the busiest season for the park, as 68% of all camping takes place during these months.
- Fall Use Season – The fall season is defined by the months of September through November. An estimated 26% of all camping takes places within this season.
- Winter Use Season – The winter season is defined from December through March. 1% of the park's camping occurs during this time.
- Spring Use Season – April through May shows gradual increase in park use with camping at 5%.

Economic Impacts

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 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 basic 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.

The following are the relative economic impacts of F.J. McLain State Park to the economy of Houghton County.

Direct Economic Effects to the Community

- Direct spending attributable to F.J. McLain State Park visitors totaled \$ 4,849,000 of which \$491,500 came from day-use, and \$4,357,280 from Camping.
- Jobs totaled 153, with 15 related to day-use activity and 137 to camping. (Note...jobs are not full-time equivalent. They include part-time and seasonal positions.)
- Personal Income total is \$1,649,000 with \$167,150 associated with day-use of the park and \$1,481,840 associated with camping.
- Value added (total income plus business taxes) totaled \$2,490,000. Day-use accounted for \$252,350 and camping accounted for \$2,237,190.

Total Economic Effects to the Community

(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.

- Total spending = \$6,410,000
- Jobs = 178
- Personal Income = \$2,169,000
- Value added = \$3,452,000