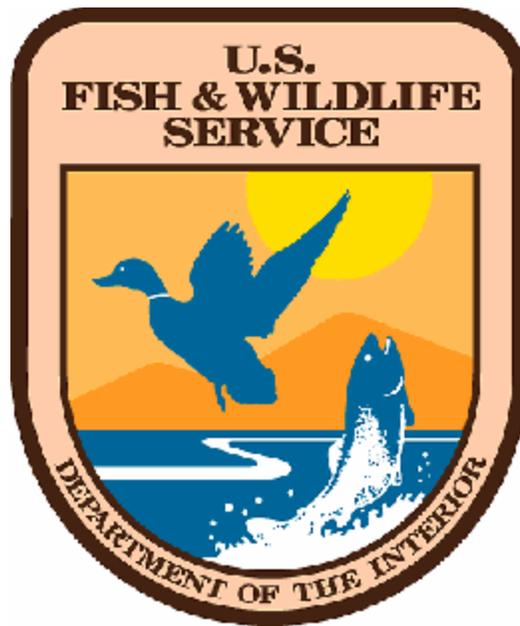


WILDLAND FIRE MANAGEMENT PLAN

WHITEFISH POINT NATIONAL WILDLIFE REFUGE



2003

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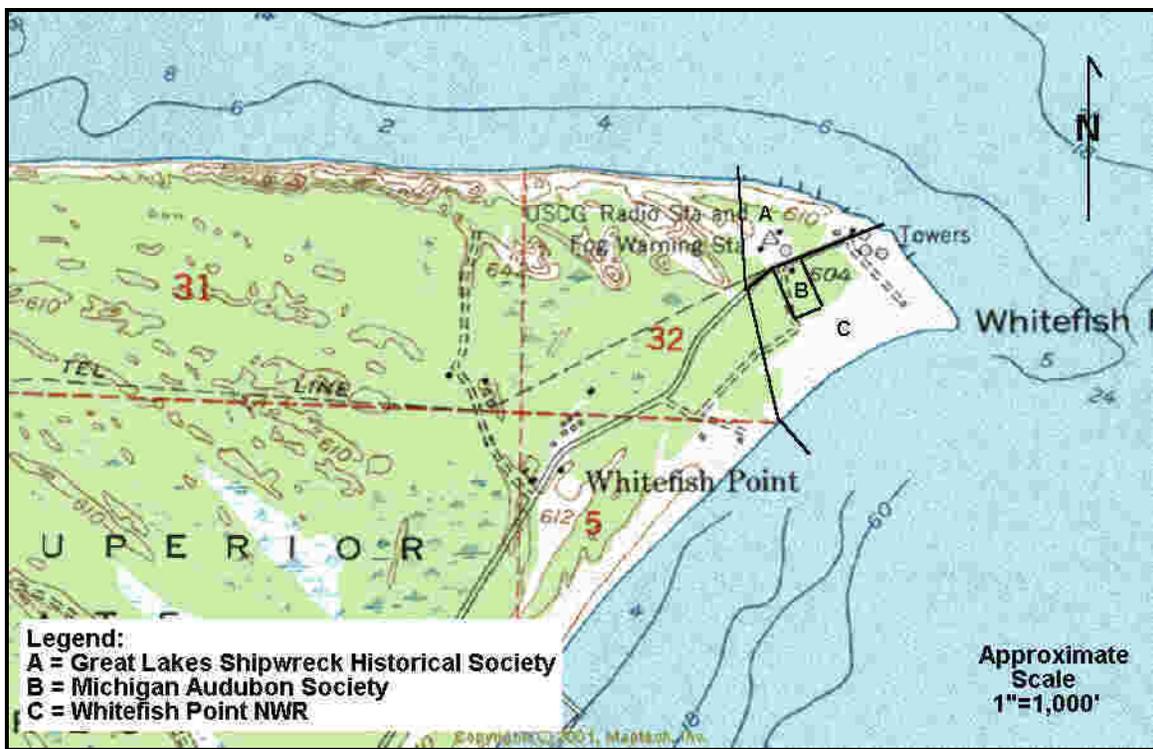
INTRODUCTION

NEED AND REASON FOR FIRE MANAGEMENT PLAN

This document establishes a Fire Management Plan (FMP) for Whitefish Point National Wildlife Refuge (NWR). The plan is written as an operational guide for managing the Refuge's wildland fire program. It defines levels of protection needed to ensure (1) safety of employees and visitors, and (2) protect resources, given current understanding of the complex relationships in natural ecosystems. It is written to comply with both Departmental and Service-wide requirements that units with burnable vegetation develop a fire management plan (620 DM 1).

This FMP outlines a program of most cost efficient and ecologically responsible suppression of all wildland fires. There will be no prescribed fires on the Refuge. Lands comprising the Refuge were set aside under provisions in Public Law 104-324 (signed October 19, 1996). The former Coast Guard facility was divided among three entities requiring coordination of all management, development, or other activities. Figure 1 illustrates the boundaries. Whitefish Point National Wildlife Refuge is a satellite unit of Seney National Wildlife Refuge and is located approximately 70 highway miles northeast of Seney NWR.

Figure 1 – Lands Divided by P.L. 104-324



HOW FMP ACHIEVES LAND MANAGEMENT PLAN OBJECTIVES

A Land Management Plan (LMP) does not currently exist for Whitefish Point NWR. Management objectives are derived from purposes of refuges described in the Migratory Bird Treaty Act provisions. As Whitefish Point is a documented resting point during migrations both to and from nesting grounds, habitat protection is the key objective.

Implementation of this plan will provide added protection to existing habitat from unwanted wildland fire.

MEETING REGULATORY REQUIREMENTS

As no new Federal actions that would affect the environment are included in this plan, the plan is deemed a categorical exclusion and requires no additional environmental documentation under the National Environmental Policy Act (NEPA). It is the policy of the Fish and Wildlife Service (FWS) to provide opportunities for public participation in management planning. This document will be available for a thirty-day comment period following completion of the draft plan.

An informal Section 7 consultation will be conducted to ensure no adverse effects on Federally Threatened or Endangered (T&E) species.

Historic buildings are located on a portion of the original Coast Guard facility. These fall under the management of the Great Lakes Shipwreck Historical Society (Museum). These buildings are not on Service lands and not covered by this Wildland Fire Management Plan. No known surveys of historic structures have been conducted on the Refuge area. Due to the constant movement of the shoreline, other sites subject to the National Historic Preservation Act (NHPA) are not likely present.

Documentation showing compliance with these and any other requirements are found in Appendix C.

COLLABORATIVE DEVELOPMENT PROCESS FOR LMP AND FMP

Public Law 107-324 requires a Cooperative Use Agreement (Section 1. (e) of House Resolution 2611 and accepted in the conference committee language) between the three parties receiving the land. Both the Michigan Audubon Society (Audubon) and Museum were involved in reviewing and commenting on this plan.

Future collaborative opportunities exist with both partner organizations on site and with Michigan Department of Natural Resources for fire protection, wildland-urban interface protection and other management needs as yet undetermined.

AUTHORITIES FOR FMP DEVELOPMENT

Authority and guidance for developing and implementing this plan are found in:

- Protection Act of September 20, 1922 (42 Stat. 857; 16 U.S.C.594): authorizes the Secretary of the Interior to protect from fire, lands under the jurisdiction of the Department directly or in cooperation with other Federal agencies, states, or owners of timber.
- Economy Act of June 30, 1932: authorizes contracts for services with other Federal agencies.
- Reciprocal Fire Protection Act of May 27, 1955 (69 Stat. 66, 67; 42 U.S.C. 1856, 1856a and b): authorizes reciprocal fire protection agreements with any fire organization for mutual aid with or without reimbursement and allows for emergency assistance in the vicinity of agency lands in suppressing fires when no agreement exists.
- Disaster Relief Act of May 22, 1974 (88 Stat. 143; 42 U.S.C. 5121): authorizes Federal agencies to assist state and local governments during emergency or major disaster by direction of the President.
- Federal Fire Prevention and Control Act of October 29, 1974 (88 Stat. 1535; 15 U.S.C.2201): provides for reimbursement to state or local fire services for costs of firefighting on federal property.
- Wildfire Suppression Assistance Act of 1989. (P.L. 100-428, as amended by P.L. 101- 11, April 7, 1989).
- Departmental Manual (Interior), Part 620 DM, Chapter 1, Wildland Fire Management: General Policy and Procedures (April 10, 1998): defines Department of Interior fire management policies.
- Service Manual, Part 621, Fire Management (February 7, 2000): defines U.S. Fish and Wildlife Service fire management policies.

- National Wildlife Refuge System Administrative Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997, 16 U.S.C. 668dd et seq.: defines the National Wildlife Refuge System as including wildlife refuges, areas for the protection and conservation of fish and wildlife which are threatened with extinction, wildlife ranges, game ranges, wildlife management areas and waterfowl production areas. It also establishes a conservation mission for the Refuge System, defines guiding principles and directs the Secretary of the Interior to ensure that biological integrity and environmental health of the system are maintained and that growth of the system supports the mission.
- National Environmental Policy Act of 1969: regulations implementing the National Environmental Policy Act encourage the combination of environmental comments with other agency documents to reduce duplication and paperwork (40 CFR 1500.4(o) and 1506.4).
- Clean Air Act (42 United State Code (USC) 7401 et seq.): requires states to attain and maintain the national ambient air quality standards adopted to protect health and welfare. This encourages states to implement smoke management programs to mitigate the public health and welfare impacts of Wildland and prescribed fires managed for resource benefit.
- Endangered Species Act of 1973.
- U.S. Fish & Wildlife Service Fire Management Handbook.
- National Fire Plan, Departments of Interior and Agriculture, 2001.
- 10-Year Comprehensive Strategy Implementation Plan, Departments of Interior and Agriculture, 2002.
- Draft Cohesive Strategy for Protecting People and Sustaining Resources in Fire-Adapted Ecosystems.

RELATIONSHIP TO LAND MANAGEMENT PLANNING/FIRE POLICY

AGENCY SPECIFIC FIRE MANAGEMENT POLICY

Fish and Wildlife Service fire management policy is based on the Departmental Manual (620 DM 1) and the 2001 Federal Wildland Fire Policy. **Firefighter and public safety is the first priority.** All Fire Management Plans and activities must reflect this commitment. With the possible exception of instances where the life of another is threatened, no Service employee, contractor, or cooperators will be purposely exposed to life-threatening conditions or situations (See 241 FW 7).

Only trained and qualified people will be assigned to fire management duties. Fire Management personnel will meet training and qualification standards established or adopted by the Service for the position they occupy. Agency Administrators will meet training standards established or adopted by the Service for the position they occupy. Employees who are trained and certified will participate in the wildland fire management program as the situation demands. Non-certified employees with operational, administrative, or other skills will support the wildland fire management program as needed. Agency Administrators will be responsible, be held accountable, and make employees available to participate in the wildland fire management program.

Fire management planning, preparedness, wildland and prescribed fire operations, monitoring, and research will be conducted on an interagency basis with the involvement of all partners when appropriate. Every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans must be consistent with firefighter and public safety, values to be protected, and land, natural, and cultural resource management plans, and must address public health issues. Fire Management Plans must also address all potential wildland fire occurrences and may include the full range of appropriate management responses. Fire Management Plans must be coordinated, reviewed, and approved by the responsible agency administrator, to ensure consistency with approved land management plans.

Fire, as an ecological process, will be integrated into resource management plans and activities on a landscape scale, across jurisdictional boundaries, and will be based upon best available science. All use of fire for natural and cultural resource management requires an approved plan which contains a formal prescription. Wildland fire will be used to meet identified resource management objectives when appropriate.

The Service will employ prescribed fire whenever it is an appropriate tool for managing Service resources and to protect against unwanted wildland fire whenever it threatens human life, property and natural/cultural resources. Once people have been committed to an incident, these human resources become the highest value to be protected. If it becomes necessary to prioritize between property and natural/cultural resources, this is done based on relative values to be protected, commensurate with fire management costs.

Regions will ensure their capability to provide safe, cost-effective fire management programs in support of land, natural, and cultural resource management plans through appropriate planning, staffing, training, and equipment.

Management actions taken on wildland fires must consider firefighter and public safety, be cost effective, consider benefits and values to be protected, and be consistent with natural and cultural resource objectives. Refuges will work with their local cooperators and the public to prevent unauthorized ignition of wildland fires on Service lands.

Structural firefighting is not the functional responsibility of the Service. Service assistance in structure protection should only be performed on an emergency basis to save lives. (See Fire Management Handbook, 1.5.4) Fire management policies and procedures for safety, training and equipment are mandatory. See 241 FW 7 (Safety Operations - Firefighting), 232 FW 6 (Firefighting Training), and 241 FW 3 (Personal Protective Equipment).

Further clarification and interpretation of policy may be found in Section 1.1.2 of the FWS Fire Management Handbook.

RELATION OF FMP TO ENABLING LEGISLATION AND PURPOSE OF UNIT

From the FWS perspective, the legislative language that directs FWS management is found in Section 1 (f) (2) of H.R. 2611: “any use of the Property or any structure located on the property which may impair or interfere with the conservation values of the Property is expressly prohibited.” In addition, the usual recognition of value to migratory birds as a resting place provides management direction.

The Fire Management Plan supports both the legislation and underlying philosophy establishing the Refuge.

SUMMARY OF SIGNIFICANT RESOURCES AND VALUES

The most significant Refuge resource is its value as a resting place for migrating birds. While not a large area, its specific location on Lake Superior supports considerable use during both spring and fall bird migrations.

Adjacent to the Refuge, the Audubon property is home to an extremely active bird monitoring site. Information derived from observations at this site has been of tremendous value to governmental agencies and private groups and individuals.

Property managed by the Museum, including several acres of undeveloped beach, provides some additional protection for migratory birds. In addition, the old lighthouse and supporting facilities are of historic interest. The lake passage at Whitefish Point funnels east-bound lake traffic toward Sault Sainte Marie and the Soo Locks. This location has been the site of a number of Great Lakes shipping disasters, the most recent the sinking of the ore carrier *Edmund Fitzgerald* in 1975 with the loss of all hands.

Critical Habitat for Piping Plovers

On 5/7/01, the FWS designated critical habitat for piping plovers in the Great Lakes. The shoreline at Whitefish Point was included in the designation, with critical habitat extending 500 meters (1,640') inland. All FWS ownership at the Point is considered critical habitat. In managing the area, the FWS must ensure that its activities do not adversely modify critical habitat to the point that it will no longer aid in the species recovery. The FWS also has a responsibility not to fund or authorize any activity within critical habitat that could potentially be averse to piping plovers.

In managing the Point, the FWS must ensure that basic elements of plover conservation are included and these are:

1. adequate space be provided for individual and population growth and normal behavior;
2. quality cover or shelter and sites for breeding and rearing offspring be provided;
3. occupied habitats are protected from disturbance by burnable fuels.

The physical layout of burnable fuels of the Point and the firefighting resources and tactics that will be used to ensure the protection of critical nesting habitat include ensuring a resource advisor from Seney

NWR will be made available to local and State firefighters as quickly as possible after a fire is discovered. Moreover, fire fighting techniques to be used (e.g., hardlines and hoselays from trucks on roads and trails) should not threaten plover habitat.

In total, there should be no effect on piping plovers from the implementation of this FMP. Appendix E contains additional information regarding significant resources and values. Appendix E contains additional information regarding significant resources and values.

BROAD MANAGEMENT PLAN DIRECTION PERTINENT TO FMP

Land Management Goals

While no formal management plans have been developed for Whitefish Point NWR, the primary goal is provision of a site to allow migrating birds a chance to recover and prepare for the next stage of the migration.

Land Management Objectives

Two objectives support the above goal: First, protection of existing habitat conditions from degradation including unwanted wildland fire; Second, improving the current habitat by various land management techniques and then protecting those improvements. Both objectives are supported by the FMP. A partial list of species known to use the Refuge is found in Appendix E.

WILDLAND FIRE MANAGEMENT STRATEGIES

GENERAL MANAGEMENT CONSIDERATIONS

Area-wide Considerations

Interagency Relationships

The primary interagency relationship involves the Michigan Department of Natural Resources (MIDNR). Facets of this relationship include wildlife management, wildland fire protection, air quality considerations and others on an occasional basis.

Regional Strategies

There are no regional strategies currently in place.

Other Collaborative Processes

Opportunities exist for the public to have input into the Refuge's management planning process. Some opportunities result from NEPA requirements while others derive from local refuge support groups. This plan was placed out for public review and input for a thirty-day period to insure local concerns were addressed and possible misconceptions cleared.

10 Year Comprehensive Strategy Core Principles

Collaboration

For this FMP, collaboration at the local level includes the MIDNR. Both the Museum and Audubon would be included based on the establishing legislation and position adjacent to Refuge lands.

Collaboration beyond the local level is not likely as the Refuge only covers ± 37 acres, approximately 40% of which is sand with little or no vegetative cover.

Priority Setting

Hazardous fuels project proposals will be rated locally for initial priorities. Overall priorities for funding fuel management projects on the Refuge will be established at the federal regional level with appropriate input from state officials in the immediate refuge area. Both Audubon and the Museum will be offered the opportunity to be involved in project proposal development when and if it becomes necessary.

Accountability

Accountability for achieving objectives developed in this plan will be accomplished by reporting results of projects or activities to the National Fire Plan Operations and Reporting System (NFPORS) as it is implemented. For objectives related to suppression, the annual report of fire activity, available at the Seney NWR office will document results of suppression actions taken on Whitefish Point NWR.

WILDLAND FIRE MANAGEMENT GOALS

Fire Management Goals in Context of LMP

The primary fire management goal is the prevention of adverse fire effects on Refuge habitats. Due to the small size of the Refuge, no other fire management goals are identified.

FMP Contribution to Safely and Effectively Achieve LMP Goals

Effective wildland fire suppression actions, taken quickly, will prevent excessive damage to refuge habitat. In the short-term, there are no plans to use prescribed fire to modify Refuge habitats. Current vegetation is generally considered to be in an early successional stage, only marginally susceptible to fire intensities that would be considered stand replacing (see Table 1 for fire regime groups).

Contribution of Wildland Fire Goals to Regional/National Plans

National Fire Plan

Due to the small size of the unit and lack of fire history in the last 20 years, wildland fire operations will not contribute to any of the National Fire Plan goals.

10 Year Comprehensive Strategy

Priorities to Protect Communities and High Risk Watersheds

There are no communities or high risk watersheds near the Refuge.

Collaboration among Governments and Representative Stakeholders

Collaboration will occur between the MIDNR and the other stakeholders designated in the establishing legislation.

Performance Measures and Results Monitoring

The only performance measure applicable involves effective protection of life, property and existing habitat conditions.

Cohesive Strategy Elements (Draft USDI-USDA document)

Institutional Objectives and Priorities

There are numerous refuge units in the Great Lakes-Big Rivers Region of FWS that support large fire-adapted habitats. These areas will receive priority attention. Whitefish Point NWR needs will be addressed when it reaches a higher priority.

Program Management Budgets and Authorities

At the present time, with no fire history, and its status as a small un-staffed unit, the Refuge fails to generate any support from the FIREBASE fire planning and budgeting tool.

Social Awareness and Support

Due to the small size of the Refuge, its existence is not widely known. While support is good from Audubon, no attempt has been made to generate extensive public support for Refuge operations. The staff time required for more extensive awareness and support would adversely affect efforts to restore a significantly larger fire-adapted ecosystem at Seney NWR.

WILDLAND FIRE MANAGEMENT OPTIONS

Wildland Fire Management Options to be Implemented

Again, due to the small size of the Refuge and the proximity of the buildings associated with the Museum, full suppression is the wildland fire management option of choice. Firefighter safety and that of visitors to the area is of primary concern, a second concern is protection of the Museum's building complex and the Audubon facilities.

Use of foam or retardants will not be allowed on the Refuge to protect both adjacent fisheries and on-refuge water quality. In addition, Minimum Impact Suppression Tactics (MIST) will be used to the extent possible to reduce environmental damage. Where possible, heavy equipment (dozers, tractor plows) use will be restricted to those areas where fire is a threat to off-refuge improvements and property.

Rationale for Strategies to be Applied to Each Fire Management Unit

With the visitor load at the Museum’s facilities and the number of Audubon visitors to that facility, suppression is the reasonable fire management strategy. The Refuge is crossed by numerous trails providing extensive flexibility in location of control lines. Actual suppression tactics could range from full, aggressive, suppression to containment between trails, the beach and roads to monitoring. Wildland fire use is not an option.

DESCRIPTION OF WILDLAND FIRE MANAGEMENT STRATEGIES BY FMU

FMU Description

The Refuge has only one FMU. Three different fuel complexes exist: conifer forest dominated by jack pine (*Pinus banksiana*), swamp dominated by speckled alder (*Alnus rugosa*) and sparse beach grasses. Topographically, the unit is generally flat with an estimated elevation difference of 10 feet depending on the level of Lake Superior. The forested area falls within fire regime group IV (as defined in the 10-Year Comprehensive Strategy, see Table 1) and can expect stand-replacing fires to occur at intervals between 35 and 100+ years. Additional physical and biological information that applies to the FMU may be found in Appendix E.

Table 1 – Fire Regime Groups

Fire Regime Group	Frequency (Fire Return Interval)	Severity
I	0-35 years	low severity
II	0-35 years	stand replacement severity
III	35-100+ year	mixed severity
IV	35-100+ year	stand replacement severity
V	>200 years	stand replacement severity

The forested area is considered to be Condition Class 1, as defined in Table 2. This indicates that under current conditions an intense, stand replacing, fire is unlikely. Beach grass is widely scattered and subject to fire only under extreme wind conditions when humidity along the lake is likely to be high and fire likelihood low. The swamp area would be subject to fire when foliage is off and ground conditions are dry. Historically, in this part of the Upper Peninsula of Michigan, swamps like this only burn under extreme drought conditions.

Table 2 – Condition Class Explanation

Condition Class	Fire Regime Example Management Options
Condition Class 1	Fire regimes are within an historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range. Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use.
Condition Class 2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range. Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the historical fire regime.
Condition Class 3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range. Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the historical fire regime.

FMU Objectives and Strategies to be Used

The primary fire management objective for this FMU is the protection of existing habitat from wildland fire to benefit migratory birds. Wildland fire suppression is the strategy to be applied.

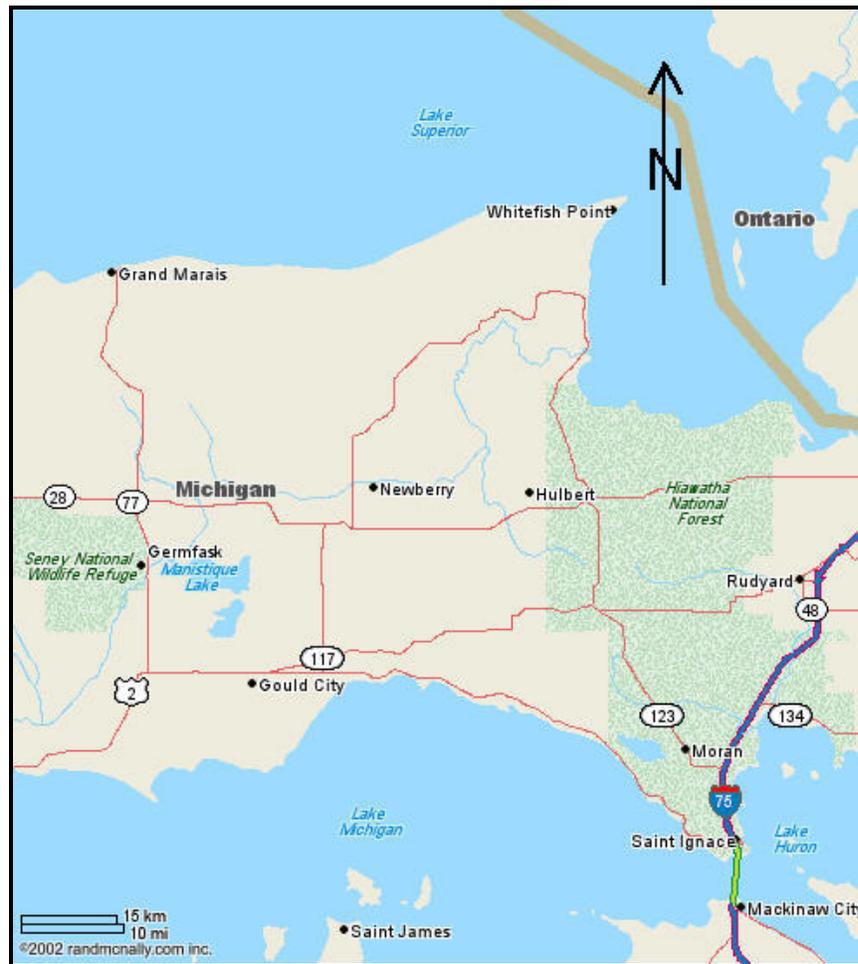
WILDLAND FIRE MANAGEMENT COMPONENTS

WILDLAND FIRE SUPPRESSION

Program Direction Where Suppression is Appropriate Management Response

Because the Refuge is a remote, unstaffed, satellite of Seney NWR, initial attack suppression action will generally be provided by either the Whitefish Township Fire Department with backup by MIDNR. Seney NWR staff will assist as necessary, providing a resource advisor as quickly as possible, and during the mop-up phase of operations. Figure 2 shows the relative location of Seney and Whitefish Point NWRs.

Figure 2 – Refuge Vicinity Map



Preparedness

Prevention and Community Education

Most wildland fires in the area are a result of human causes. As this FMP is implemented, opportunities to provide prevention education through the Museum facilities are expected to develop. Coordination of prevention messages with both MIDNR and U.S. Forest Service is both reasonable and practical; Closures of Refuge lands due to very high or extreme fire danger levels would be coordinated with the other agencies as well.

There are no communities adjacent to, or within a reasonable distance of, the Refuge that would be affected by a Refuge wildland fire. Scattered individual homes near Refuge boundaries receive structural fire protection from the local volunteer fire department. Wildland fire protection is provided by both the local fire department and MIDNR.

Community Assistance and Grant Programs

No FWS sponsored community assistance or grant programs are in place and none are expected to be established.

Training and Qualifications

Departmental and FWS policy requires that all personnel engaged in suppression and prescribed fire duties meet the standards set by the National Wildfire Coordinating Group (NWCG). As FWS personnel are part of the Seney NWR staff, they will conform strictly to the requirements of the wildland fire management qualification and certification system and FWS guidelines.

Additional details on training and qualification may be found in the pertinent sections of the Seney NWR FMP.

Readiness

As the fire season for Whitefish Point NWR is the same as that at Seney NWR, all readiness actions at Seney will support readiness at Whitefish Point. There are no local FWS caches of tools or equipment here. MIDNR has tools and equipment at Newberry, MI which is 40 miles away and at Tahquamenon Falls State Park, approximately 10 miles distant.

Detection

Detection reports from the public to staff at the Museum facilities would be the primary detection source. These reports would expect to pass through the local 911 system with either Whitefish Township Fire Department and/or MIDNR responding. No additional detection needs exist.

Initial Attack

Initial attack operations by either MIDNR or the local fire department would generally consist of 2 firefighters and a wildland engine. Support would come from Seney NWR staff, other MIDNR offices, and the U.S. Forest Service under existing cooperative agreements.

Extended Attack

Due to the small size of the Refuge, an extended attack operation is highly unlikely. Second burning period operations would most likely involve mop-up operations with a limited potential for emergency rehabilitation. Procedures for additional resource requests from local sources are found in Section 4.4 of the MIDNR Upper Peninsula Wildfire Mobilization Plan.

Other Management Considerations

Clean Air Act

The area is designated a Class II airshed under the Clean Air Act. As there are no immediate plans for prescribed fire use, the only effects on air quality would be from unwanted wildland fires and they are expected to be very short-term with limited adverse effects expected.

Endangered Species Act

Threatened or Endangered animals, if present would normally be able to move away from an unwanted wildland fire. No surveys for Threatened or Endangered plants have been conducted and none are known to exist on the Refuge. Tables showing the Federally listed Threatened or

Endangered species and the state listed species expected to be found in Chippewa County are found in Appendix E.

Other Legislation or Codified Rules

Although there has been no formal cultural site survey on the Refuge, the location on the shore of Lake Superior, proximity to traditional Native American fishing areas, and the short distance to the Canadian shore all indicate that cultural sites may be present. Appendix A presents the Great Lakes-Big Rivers policy and procedure for dealing with known or potential cultural sites under the National Historic Preservation Act (NHPA).

WILDLAND FIRE USE

There will be no Wildland Fire Use on Whitefish Point due to the small size of the area and risk to Museum and Audubon facilities.

PRESCRIBED FIRE

There is no plan to apply prescribed fire to this unit during the period of this plan. Should the Comprehensive Conservation Plan or other land management planning document indicate a need, this plan will be modified.

NON-FIRE FUEL TREATMENTS

None are planned at this time.

EMERGENCY REHABILITATION AND RESTORATION

Burned Area Emergency Stabilization and Rehabilitation Handbook

The Burned Area Emergency Stabilization and Rehabilitation Handbook will guide all wildland fire recovery efforts.

Pre-Identified Areas with Restoration Needs

Because there are only 19 acres of burnable fuel and the existing vegetation lies on generally flat ground and is fire-adapted, no areas with pre-identified restoration needs exist.

ORGANIZATION AND BUDGET

STAFFING

Current Level

As Whitefish Point NWR is an unstaffed satellite of Seney NWR, there is no staff on site. For current fire management staff and capability see the Seney NWR FMP.

Level Needed to Accomplish Objectives

No additional staffing is required to accomplish the objectives noted in the Wildland Fire Management Strategies section of this plan.

FUNDING

Current Level

As no fire load is present, analysis using FIREBASE shows no funding requirements. Any support for suppression operations would be expected to come through the Seney NWR budget.

Level Needed to Accomplish Objectives

No additional funding is needed until such time as fuel management operations are proposed.

COOPERATIVE AGREEMENTS

There is no formal agreement with the State of Michigan for suppression cooperation. Cooperation is generally predicated on the agreements between the state and U.S. Forest Service and by extension between the Forest Service and FWS by means of the "all of us agreement" most recently renewed at the national level in 1995.

MONITORING AND EVALUATION

MONITORING

Prescribed Fire

As no prescribed fire application is planned, no monitoring is planned. An opportunity does exist to collect baseline data so that future management actions or wildland fires could be evaluated as to effects on Refuge habitats.

Non-Fire Treatments

As no non-fire treatments are planned, no monitoring is planned. Any baseline data collected under the previous item would be usable for these treatments also.

EVALUATION

Wildland Fire Suppression Operations

Review of Outside Resource Performance

Evaluation of outside resources (MIDNR, other overhead or resources) will occur in accordance with guidance in the Fire Management Handbook, Section 3.6, Reviews.

Review of Internal Refuge Actions

Evaluation of Refuge suppression actions will be handled the in the same manner as the review of outside resource performance. Again the guidance found in the Fire Management Handbook, Section 3.6, Reviews will be followed.

Effectiveness of Prescribed Fire Operations

The effectiveness of prescribed fire operations will be judged using the monitoring results developed in the section on monitoring above.

NATIONAL WILDLAND FIRE PERFORMANCE MEASURES

As there is no fire history for this Refuge, there are no reductions in acres or costs to be achieved. Projects or activities that relate to the National Fire Plan would be entered into NFPORS and reported through that system.

APPENDICES

APPENDIX A: REGIONAL REQUIREMENTS FOR NHPA

Preparation for prescribed fires (such as constructing fire lines) are subject to Section 106 of the National Historic Preservation Act. The procedures in the Notice dated December 8, 1999, "Historic Preservation Responsibilities," apply to the planning and preparation for conducting prescribed fires.

Efforts to control wildland fires (including prescribed fires that get out of control) are also subject to Section 106 of the National Historic Preservation Act. We will meet our obligations under this act in the following ways:

When the land covered by a wildfire has been inventoried for cultural resources, and the cultural resources have been evaluated for significance according to the criteria for the National Register of Historic Places, the Fire Management Officer will direct ground disturbing fire suppression efforts around (will avoid impacting) historic properties. Nevertheless, evidence of a previously undetected cultural resource may be encountered. The project leader shall immediately notify the Regional Historic Preservation Officer (RHPO). The RHPO will take immediate steps to have the cultural resource evaluated and protected, as appropriate, to the extent required by law and policy. This may require arranging for a qualified professional to visit and evaluate the site's importance and recommend a course of action. An evaluation and decision on the disposition of the cultural resource should be made within 48 hours of the discovery unless the project's schedule allows greater flexibility.

When the land covered by a wildfire has not been inventoried for cultural resources and wildfire suppression activities do result in ground disturbing activities, we will take the following action. Soon after fire control, the project leader will contact the RHPO to arrange for an archeologist to investigate the disturbed areas to determine if sites were affected.

Refuge operations and maintenance funds (currently sub-activity 1261) will pay the cost of these activities unless the action is an emergency archeological and historic property survey in unstable areas prone to further degradation (i.e., erosion) following a wildland fire or in association with an emergency fire rehabilitation treatment. Emergency archeological and historic property surveys in unstable areas prone to further degradation (i.e., erosion) following a wildland fire or in association with an emergency fire rehabilitation treatment, and archeological, historic structure, cultural landscape, and traditional cultural property resource stabilization and rehabilitation can be funded with emergency rehabilitation funding (sub-activity 9262).

APPENDIX B: GLOSSARY

Burned Area Rehabilitation: The treatment of an ecosystem following disturbance to minimize subsequent effects (1995 Federal Wildland Fire Policy.)

Ecosystem: A spatially explicit, relatively homogeneous unit of the Earth that includes all interacting organisms and components of any part of the natural environment within its boundaries. An ecosystem can be of any size, e. g., a log, pond, field, forest, or the Earth s biosphere (Society of American Foresters, 1998)

Ecosystem Integrity: The completeness of an ecosystem that at geographic and temporal scales maintains its characteristic diversity of biological and physical components, composition, structure, and function (Cohesive Strategy, 2000) .

Fire-prone ecosystem: Ecosystems that historically burned intensely at low frequencies ((stand replacing fires) , those that burned with low intensity at a high frequency (understory fires) , and those that burned very infrequently historically, but are now subject to much more frequent fires because of changed conditions. These include fire-influenced and fire-adapted ecosystems (Cohesive Strategy, 2000) .

Firewise: A public education program developed by the National Wildland Fire Coordinating Group that assists communities located in proximity to fire-prone lands. (For additional information visit the Web site at: <http://www.firewise.org>)

Indigenous knowledge: Knowledge of a particular region or environment from an individual or group that lives in that particular region or environment, e. g. , traditional ecological knowledge of American Indians (FS National Resource Book on American Indian and Alaskan Native Relations, 1997) .

Performance measure: A quantitative or qualitative characterization of performance (Government Performance and Results Act of 1993) .

Resiliency: The capacity of an ecosystem to maintain or regain normal function and development following disturbance (Society of American Foresters, 1998) .

Restoration: The active or passive management of an ecosystem or habitat toward its original structure, natural compliment of species, and natural functions or ecological processes (Cohesive Strategy, 2000) .

Severe wildland fire (catastrophic wildfire): Fire that burns more intensely than the natural or historical range of variability, thereby fundamentally changing the ecosystem, destroying communities and/ or rare or threatened species/ habitat, or causing unacceptable erosion (GAO/ T-RCED-99-79) (Society of American Foresters, 1998) .

Wildland urban interface: The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (Glossary of Wildland Fire Terminology, 1996) .

Wildland Fire Use: The management of naturally ignited wildland fires to accomplish specific, planned resource management, objectives in predefined geographic areas outlined in fire management plans. Wildland fire use is not to be confused with “fire use” which includes prescribed fire.

APPENDIX C: REGULATORY COMPLIANCE

NEPA, Endangered Species Act, National Historic Preservation Act compliance documents will be included in this Appendix.

APPENDIX D: WILDLAND FIRE DISPATCH PLAN

Whitefish Point National Wildlife Refuge Dispatch Plan

When report of smoke or fire is received get as much information as possible from the caller. The following list should be filled in.

Location of smoke or fire:

Location of caller:

Name and telephone number of caller:

Color of smoke:

Size of fire:

Type of Fuel:

Character of fire (running, creeping, etc.):

Anyone on the fire:

See anyone in the area or boats leaving the area:

- 1. Check map location*
- 2. Notify Project Leader*
- 3. Maintain log of all telephone communications.*
- 4. Remain on duty.*
- 5. Notify the Following:*

<i>MIDNR - Newberry Field Office</i>	<i>Office (906) 293-3293</i>
<i>5666 M123, Newberry, MI 49868</i>	
<i>After Hour Pager</i>	<i>(906) 222-1115</i>
<i>Paul Gaberdiel – after hours</i>	<i>(906) 586-3740</i>

DIRECTORY

Regional Office

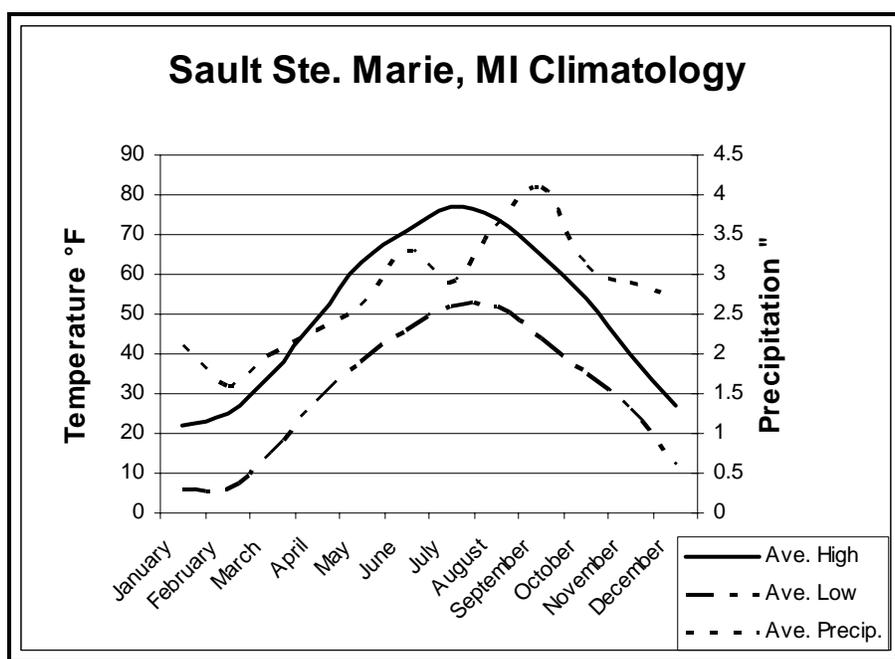
<i>Brian McManus</i>	<i>Fire Mgt. Coordinator</i>	<i>Office (612) 713-5366</i>
		<i>Home (507) 263-8878</i>
<i>Nita Fuller</i>	<i>Chief, Division of Refuges</i>	<i>Office (612) 713-5401</i>

APPENDIX E: FMU PHYSICAL AND BIOLOGICAL ADDENDUM

Whitefish Point NWR is located on the south shore of Lake Superior approximately 40 miles west of Sault Sainte Marie, MI. The point is a constantly changing area of sand beach with the Refuge lying in such a position as to be accreting land continuously. Topographically, the land is considered flat to slightly rolling with a difference in elevation of approximately ten feet. Soil conditions are harsh with coarse sand the predominating soil.

Climatologically, the area is subject to significant winds from the northwest with over one hundred miles of open lake failing to provide any modification of wind speed. Because of the lakeshore location, summer temperatures are frequently cooler than those found inland ten or more miles. Figure 3 shows the climatological conditions at Sault Sainte Marie.

Figure 3 – Sault Sainte Marie, MI Climatology



The Upper Peninsula of Michigan typically has a split fire season. The first part is in the spring from the time snow disappears until vegetation has begun its growth (green-up). This part of the fire season usually runs from mid-April until late May or early June. A fall fire season may follow the growing season. The first frost cures remaining fine fuels and this season may last until snow cover is on the ground. Growing season statistics for the area indicate a 110 day growing season on average.

Vegetation on the Refuge is typical of a droughty soil type. Jack pine and blueberry (*Vaccinium angustifolium*) are common on the drier sites. A portion along the south boundary is swamp; species found include speckled alder, red maple (*Acer rubrum*) and black spruce (*Picea mariana*). Low growing shrubs also occur in the swamp area. Grasses occur on the more recently accreted lands, occurring in bunches with extensive open sand areas. No vegetation surveys have been conducted so no evidence of threatened or endangered plants has been noted.

Because the Refuge area only contains about 19 acres of forest type vegetation, there is not adequate nesting territory to support a dense bird population on the Refuge. However, several thousand acres of forested land exist on the Lake Superior State Forest south and west of the Refuge. The habitat on the

Refuge is desirable primarily as a resting point for migrating birds. White-tailed deer (*Odocoileus virginianus*) are expected visitors and timber wolves (*Canis lupus*) are known to frequent the surrounding area. Small mammals including snowshoe hare (*Lepus americanus*), striped skunk (*Mephitis mephitis*), squirrels and others are likely residents.

Threatened and Endangered species lists follow.

Table 3 – Federally Listed Threatened or Endangered Species

Common Name	Accepted Scientific Name	Status
BIRDS		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T
Kirtland's Warbler	<i>Dendroica kirtlandii</i>	E
Piping Plover	<i>Charadrius melodus</i>	E
MAMMALS		
Canada Lynx	<i>Lynx canadensis</i>	T
Eastern Puma	<i>Puma concolor cougar</i>	E
Indiana Bat	<i>Myotis sodalis</i>	E
Gray Wolf	<i>Canis lupus</i>	E
INSECTS: BUTTERFLIES & MOTHS		
Karner Blue Butterfly	<i>Lycaeides melissa samuelis</i>	E
Mitchell's Satyr Butterfly	<i>Neonympha mitchellii mitchellii</i>	E
PLANTS		
American hart's-tongue fern	<i>Asplenium scolopendrium var. americanum</i>	T
Dwarf lake iris	<i>Iris lacustris</i>	T
Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T
Fassett's locoweed	<i>Oxytropis campestris</i>	T
Houghton's goldenrod	<i>Solidago houghtonii</i>	T
Lakeside daisy	<i>Hymenoxys herbacea</i>	T
Michigan monkey-flower	<i>Mimulus glabratus var. michiganensis</i>	E
Pitcher's thistle	<i>Cirsium pitcheri</i>	T
Small whorled pogonia	<i>Isotria medeoloides</i>	T

Michigan State Threatened or Endangered Species

The table below is derived from the Michigan Natural Features Inventory and includes those state T&E species reported in, or reasonably expected to be found in, Chippewa County.

Table 4 – State Listed Threatened or Endangered Species – Chippewa County

Common Name	Scientific Name	Status
BIRDS		
Bald eagle	<i>Haliaeetus leucocephalus</i>	T
Common loon	<i>Gavia immer</i>	T
Common tern	<i>Sterna hirundo</i>	T
Merlin	<i>Falco columbarius</i>	T
Migrant loggerhead shrike	<i>Lanius ludovicianus migrans</i>	E
Osprey	<i>Pandion haliaetus</i>	T
Piping plover	<i>Charadrius melodus</i>	E
Red-shouldered hawk	<i>Buteo lineatus</i>	T
Short-eared owl	<i>Asio flammeus</i>	E
Yellow rail	<i>Coturnicops noveboracensis</i>	T

Common Name	Scientific Name	Status
INSECTS		
Lake Huron locust	<i>Trimerotropis huroniana</i>	T
MAMMALS		
Gray wolf	<i>Canis lupus</i>	E
PLANTS		
Alpine bluegrass	<i>Poa alpina</i>	T
Ashy whitlow-grass	<i>Draba cana</i>	T
Auricled twayblade	<i>Listera auriculata</i>	SC
Awlwort	<i>Subularia aquatica</i>	E
Bedstraw	<i>Galium kamschaticum</i>	T
Blunt-lobed woodsia	<i>Woodsia obtusa</i>	T
Bulrush sedge	<i>Carex scirpoidea</i>	T
Calypso or fairy-slipper	<i>Calypso bulbosa</i>	T
Canada rice-grass	<i>Oryzopsis canadensis</i>	T
Dwarf lake iris	<i>Iris lacustris</i>	T
False pennyroyal	<i>Trichostema brachiatum</i>	T
Farwell's water-milfoil	<i>Myriophyllum farwellii</i>	T
Flattened spike-rush	<i>Eleocharis compressa</i>	T
Goblin moonwort	<i>Botrychium mormo</i>	T
Green spleenwort	<i>Asplenium trichomanes-ramosum</i>	T
Hart's-tongue fern	<i>Asplenium scolopendrium var. americanum</i>	E
Houghton's goldenrod	<i>Solidago houghtonii</i>	T
Lake Huron tansy	<i>Tanacetum huronense</i>	T
Lapland buttercup	<i>Ranunculus lapponicus</i>	T
Limestone oak fern	<i>Gymnocarpium robertianum</i>	T
New England sedge	<i>Carex novae-angliae</i>	T
Panicled screw-stem	<i>Bartonia paniculata</i>	T
Pine-drops	<i>Pterospora andromedea</i>	T
Pitcher's thistle	<i>Cirsium pitcheri</i>	T
Prairie-smoke	<i>Geum triflorum</i>	T
Purple cliff-brake	<i>Pellaea atropurpurea</i>	T
Round-leaved orchis	<i>Amerorchis rotundifolia</i>	E
Small skullcap	<i>Scutellaria parvula</i>	T
Sweet coltsfoot	<i>Petasites sagittatus</i>	T
Vasey's rush	<i>Juncus vaseyi</i>	T
Walking fern	<i>Asplenium rhizophyllum</i>	T
Wall-rue	<i>Asplenium ruta-muraria</i>	E
Western moonwort	<i>Botrychium hesperium</i>	T
Wiegand's sedge	<i>Carex wiegandii</i>	T

The following table is a partial compilation of birds recently reported by the Michigan Audubon Society at the Whitefish Point Bird Observatory. Most of the birds on the list are migrants and not likely found on a regular basis on the Refuge.

Table 5 – Whitefish Point NWR Partial Bird List

Common Name	Scientific Name
American Crow	<i>Corvus brachyrhynchos</i>
American Kestrel	<i>Falco sparverius</i>
American Pipit	<i>Anthus rubescens</i>
American Redstart	<i>Setophaga ruticilla</i>
American Robin	<i>Turdus migratorius</i>
American Wigeon	<i>Anas americana</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Bay-breasted Warbler	<i>Dendroica castanea</i>

Common Name	Scientific Name
Belted Kingfisher	<i>Ceryle alcyon</i>
Black-backed Woodpecker	<i>Picoides arcticus</i>
Black-capped Chickadee	<i>Parus atricapillus</i>
Blackpoll Warbler	<i>Dendroica striata</i>
Black-throated Green Warbler	<i>Dendroica virens</i>
Blue Jay	<i>Cyanocitta cristata</i>
Blue-gray Gnatcatcher	<i>Poliopitila caerulea</i>
Blue-headed Vireo	<i>Vireo solitarius</i>
Bonaparte's Gull	<i>Larus philadelphia</i>
Brown Creeper	<i>Certhia americana</i>
Canada Goose	<i>Branta canadensis</i>
Canada Warbler	<i>Wilsonia canadensis</i>
Cape May Warbler	<i>Dendroica tigrina</i>
Caspian Tern	<i>Sterna caspia</i>
Chipping Sparrow	<i>Spizella passerine</i>
Clay-colored Sparrow	<i>Spizella pallida</i>
Common Loon	<i>Gavia immer</i>
Common Merganser	<i>Mergus merganser</i>
Common Raven	<i>Corvus corax</i>
Common Snipe	<i>Gallinago gallinago</i>
Common Tern	<i>Sterna hirundo</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Fox Sparrow	<i>Passerella iliaca</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Gray-cheeked Thrush	<i>Catharus minimus</i>
Greater Scaup	<i>Aythya marila</i>
Green-winged Teal	<i>Anas crecca</i>
Harris's Sparrow	<i>Zonotrichia querula</i>
Hermit Thrush	<i>Catharus guttatus</i>
Herring Gull	<i>Larus argentatus</i>
Horned Grebe	<i>Podiceps auritus</i>
Horned Lark	<i>Eremophila alpestris</i>
Iceland Gull	<i>Larus glaucoides</i>
Lapland Longspur	<i>Calcarius lapponicus</i>
Le Conte's Sparrow	<i>Passerherbulus caudacutus</i>
Lincoln's Sparrow	<i>Melospiza lincolni</i>
Long-eared Owl	<i>Asio otus</i>
Magnolia Warbler	<i>Dendroica magnolia</i>
Mallard	<i>Anas platyrhynchos</i>
Merlin	<i>Falco columbarius</i>
Mourning Dove	<i>Zenaida macroura</i>
Nashville Warbler	<i>Vermivora ruficapilla</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Parula	<i>Parula americana</i>
Pacific Loon	<i>Gavia pacifica</i>
Palm Warbler	<i>Dendroica palmarum</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Philadelphia Vireo	<i>Vireo philadelphicus</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
Red-necked Grebe	<i>Podiceps grisegena</i>
Red-throated Loon	<i>Gavia stellata</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Rusty Blackbird	<i>Euphagus carolinus</i>
Sanderling	<i>Calidris alba</i>

Common Name	Scientific Name
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Saw-whet Owl	<i>Aegolius acadicus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>
Sora	<i>Porzana carolina</i>
Surf Scoter	<i>Melanitta perspicillata</i>
Swainson's Thrush	<i>Catharus ustulatus</i>
Swamp Sparrow	<i>Melospiza Georgiana</i>
Tennessee Warbler	<i>Vermivora peregrine</i>
Turkey Vulture	<i>Cathartes aura</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
White-winged Scoter	<i>Melanitta deglandi</i>
Winter Wren	<i>Troglodytes troglodytes</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>

There are no structures or physical facilities on the Refuge. Facilities owned by Audubon are surrounded by Refuge land. An open area of grass surrounds the building providing some area from which structural protection could occur.

Museum property is separated from the Refuge by the Whitefish Point Road. One area of private land abuts the Refuge on the south boundary, east of the road. Buildings are far enough from the boundary that structural protection, if necessary, can be put in place. The primary threat to Museum facilities would be from a fire on Lake Superior State Forest lands to the south and west. MIDNR has provided a FIREWISE assessment to the Museum.