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## Environmental Overview

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This Chapter provides an overview of known environmental constraints associated with the Sawyer International Airport (Sawyer) Master Plan Update and is not intended to satisfy environmental clearance requirements outlined in FAA Order 5050.4B, *Airport Environmental Handbook*, or to fulfill the requirements of the National Environmental Policy Act of 1969 (NEPA). Rather, the intent of this Chapter is to provide an overview of the environmental constraints that exist in the area and to provide data that can be used in developing any future NEPA compliant document such as a Categorical Exclusion, Environmental Assessment, or an Environmental Impact Statement. This Chapter will not determine or delineate any detailed environmental concerns, as that is the purpose of the NEPA environmental process; however, general assessments of the 21 required NEPA categories will be provided.

In 1995, the K.I. Sawyer Base Re-use Plan recommended various improvements to Sawyer to facilitate the transfer of aircraft operations from Marquette County Airport in Negaunee to the existing Sawyer site. As a result, an Environmental Assessment (EA) was prepared in 1999 to evaluate the effects of the proposed projects on the surrounding natural, social, and economic environments. This EA provided a comprehensive inventory of known environmental constraints at Sawyer; therefore, the EA was used as a reference to create this chapter of the current Master Plan document. In addition, the Project Team coordinated with various local, state, and federal regulatory agencies throughout the master planning process including the Michigan Department of Environmental Quality (MDEQ), Michigan Department of Natural Resources (MDNR), U.S. Fish and Wildlife Service (USFWS), Federal Aviation Administration (FAA), and the Environmental Protection Agency (EPA) in an effort to supplement the information provided by the 1999 EA.

This chapter is organized into the following sections:

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## **6.1 Noise**

Per the Federal Aviation Administration (FAA) *Environmental Desk Reference for Airport Actions*, projects at airports that experience 90,000 annual piston-powered aircraft operations, 700 annual jet-powered aircraft operations, citing a new airport, runway relocation, runway strengthening, or a major runway expansion require a noise analysis including noise contour maps.

This Master Plan Update project does not involve any of these actions and as such, a noise analysis or a noise contour map is not required. Noise contours are not typically generated for master plan studies unless impacts to surrounding incompatible land uses are anticipated and development of noise contours would assist with refinement of alternatives by evaluating noise impacts to adjacent communities or land uses.

To evaluate noise impacts for a given project, the FAA, EPA, and Housing and Urban Development (HUD) have established the 65 day-night sound level (65 DNL) as the threshold for the determination of significant noise impacts. To determine if a proposed project will exceed these levels, the Integrated Noise Model (INM) is the accepted industry tool for evaluating aircraft noise impacts in the vicinity of an airport. The INM has many analytical uses, including analyzing changes in noise impacts resulting from new or extended runways or runway configurations, assessing new traffic demand and fleet mixes and alternative flight profiles, and evaluating modifications to operational procedures.

An INM analysis was completed during the 1999 EA and was developed to evaluate the existing primary runway, the development of a 5,000 foot crosswind runway, and to assess the potential noise impacts to the surrounding community. The location of the proposed crosswind runway within the EA is identical to the crosswind runway alternatives presented within this Master Plan Update report. Based on the noise analysis conducted in the 1999 EA, proposed development will not likely impact the 65 DNL threshold. The 1999 EA states that no noise or land use impacts are anticipated with the development of the crosswind runway and all existing aircraft noise is anticipated to remain in the current 65 DNL if the runway length remains unchanged. As a result, the crosswind runway alternatives presented in this Master Plan Update are not expected to have noise impacts that exceed 65 DNL.

Although noise impacts are not expected with any crosswind runway alternative, further analysis is recommended during the formal environmental clearance process, such as an EA, to verify that no new noise sensitive land uses have been developed in proximity to Sawyer since the last noise analysis in 1999. FAA guidance directs a noise analysis be completed if a new crosswind runway is proposed. However, if a future crosswind runway is the same length and in the same location as the 1999 EA crosswind runway, the 1999 noise data can be utilized in place of a new noise analysis. Given that a crosswind runway was evaluated in the 1999 EA, additional noise modeling is unlikely to be required unless the crosswind runway footprint changes, the primary runway length is modified, or a significant change in fleet mix occurs.

Aircraft noise can often be a nuisance to noise sensitive land uses surrounding an airport. For example, at the former site in Negaunee, noise complaints were experienced in the 1990s because residential development had occurred around the Marquette County Airport site. If the Marquette County Airport would have remained at the original Negaunee site and experienced the same operational growth as Sawyer, it is likely that many of the surrounding residents would have experienced an increase in aircraft noise. The decision to relocate to Sawyer alleviated this conflict and allowed for the continued development of the Negaunee area and allowed airport activity to be located in an area more suitable for aircraft noise. The decision to relocate to the Sawyer site should be recognized as a responsible land use planning decision.

## 6.2 Compatible Land Use

Land use planning as it relates to Sawyer is fundamental to achieving and maintaining compatibility with the surrounding communities. The key concept behind land use planning and airports is to ensure that people who live, work, or own property near the airport enjoy acceptable levels of freedom from noise while the airport maintains its ability to satisfy existing users and expand its size and level of operation to meet projected aviation demand.



Safety is another important consideration when evaluating compatible land uses around airports. Incompatible land uses such as solid waste landfills, open water, and wetlands can act as wildlife attractants and adversely affect safe aircraft operations. Airport sponsors are directed by the FAA to use their best efforts to promote compatible land uses and zoning measures to influence compatible development adjacent to airport property.

The current land use around Sawyer is a mix of residential, agricultural, and industrial uses. The noise analysis conducted in the 1999 EA indicates that land uses will not be affected. Agency coordination, as part of this Master Plan study, was conducted and verified that land use impacts were unlikely. This element should be reviewed in the future to confirm that no incompatible land uses have been maintained in proximity to Sawyer.

As discussed in the previous section, residential development began to encroach on the Marquette County Airport site in Negaunee in the 1990s. As growth of residential properties around the airport increased, the opportunity of noise concerns for residents from aircraft overflights increased as well. The subsequent relocation to the Sawyer site has alleviated the land use conflicts and has increased the quality of life for residents surrounding the now closed Marquette County Airport.

Additionally, the relocation to Sawyer has generated industrial and commercial opportunities in close proximity to air service and air freight operations. As a result of the move to Sawyer, 225 jobs were created with the location of the American Eagle Sawyer Base Maintenance Center. The development of this business and many others would not have been possible at the previous airport location.

### **6.3 Social Impacts**

Social impacts which are normally considered in an environmental overview include community, health, and safety impacts. Social impacts caused by a given project include moving homes and residences, causing disruptions to existing businesses, causing alterations to surface transportation in the community, interfering with planned development, or any appreciable changes in employment.

When assessing social impacts of a particular project, an evaluation must be made in order to determine the level of health and safety impacts on a community and especially children. Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, defines risks to a community in terms of air, water, food, and the soil used to grow food. This order directs environmental documents to evaluate project-related impacts to air, water, food, and the soil to determine if disproportionate impacts would occur to the children of the community as a result of the project.

An analysis of proposed alternatives indicates that no social impacts are expected. Agency coordination was conducted to verify this determination. As a result, it is not expected that property acquisition will be required for future airport developments, nor are there any expected residential, business, or road relocations, or impacts to community health and safety. Therefore, no social impacts are anticipated.

### **6.4 Socioeconomic Impacts**

Major airport development can often cause induced or secondary impacts on surrounding communities. Induced socioeconomic impacts address such issues as population movement and growth, public service demands, and changes in the business and economic activity created or generated by the proposed airport development. These impacts are normally not significant enough for an environmental assessment unless other categories, such as land use, social, and noise exhibit significant impacts.

Improvements to Sawyer are not expected to create a significant change in population, public service, or economic activity in the area but are expected to have positive impacts on the surrounding community through the development of additional employment opportunities, business growth, and economic activity. Coordination with various resource agencies supports this finding. Thus, it has been determined that no detrimental significant socioeconomic impacts are anticipated.

## 6.5 Environmental Justice

The purpose of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, is to identify, address, and avoid disproportionately high and adverse human or environmental effects on minority and low-income populations. Environmental Justice is defined as the right to a safe, healthy, productive, and sustainable environment for all where “environment” is considered in its totality to include the ecological, physical, social, political, aesthetic, and economic environments.

Minority populations are commonly defined as African American, Hispanic, Asian, or American Indian individuals. Each or all of these ethnic groups may live in geographic proximity to one another or may be geographically scattered but will be similarly impacted by the proposed project. Generally, when defining a minority population in relation to project impacts, the minority population or populations must exceed 50 percent (50%) of the total population within the vicinity of expected impacts.

Low-income populations are defined as any group of persons identified as low-income who live in geographic proximity to a proposed project and will be similarly impacted. Several methods are used to calculate low-income populations including the Department of Health and Human Services poverty levels and the U.S. Census Bureau’s annual statistical poverty thresholds.

Based on the data provided in the previously completed EA and a review of the 2000 Census data, there are no disproportionate concentrations of minority, low-income, or other people with special transportation needs in the project area. Consequently, the proposed improvements to Sawyer will not require the relocation of residences and businesses or have any disproportionately high adverse impacts on minority or low-income populations.

## 6.6 Air Quality

Generally, a detailed air quality analysis is needed for projects that due to their size, scope, or location have the potential to change or diminish air quality standards in a given area and are governed by the Clean Air Act and the EPA. National standards known as “National Ambient Air Quality Standards” (NAAQS) have been established for certain pollutants. Compliance with NAAQS means that the ambient outdoor levels of defined air pollutants are safe for human health and the environment. Federal regulations also require states to define geographic areas within the state as attainment, nonattainment, or maintenance areas for air quality standards.

Areas defined as in “attainment” meet NAAQS standards and federal actions within attainment areas are not required to comply with general conformity air quality regulations. Nonattainment and maintenance areas are areas where the concentrations of pollutants exceed established standards and projects within those areas usually require an air quality analysis. Each state is required to develop an EPA approved State Implementation Plan (SIP) that addresses air quality and puts forth a plan to bring nonattainment and maintenance areas into compliance with national standards.

According to the FAA *Environmental Desk Reference for Airport Actions*, if the proposed improvements occur at an airport having less than 180,000 general aviation operations and less than 1.3 million enplanements, an air quality analysis is not needed. Since the enplanements are forecasted to be less than 1.3 million and the general aviation operations will be significantly less than 180,000, no significant impacts are expected. In addition, according to the previously completed 1999 EA, Sawyer is in an attainment area and is included in the State Implementation Plan.

## 6.7 Water Quality

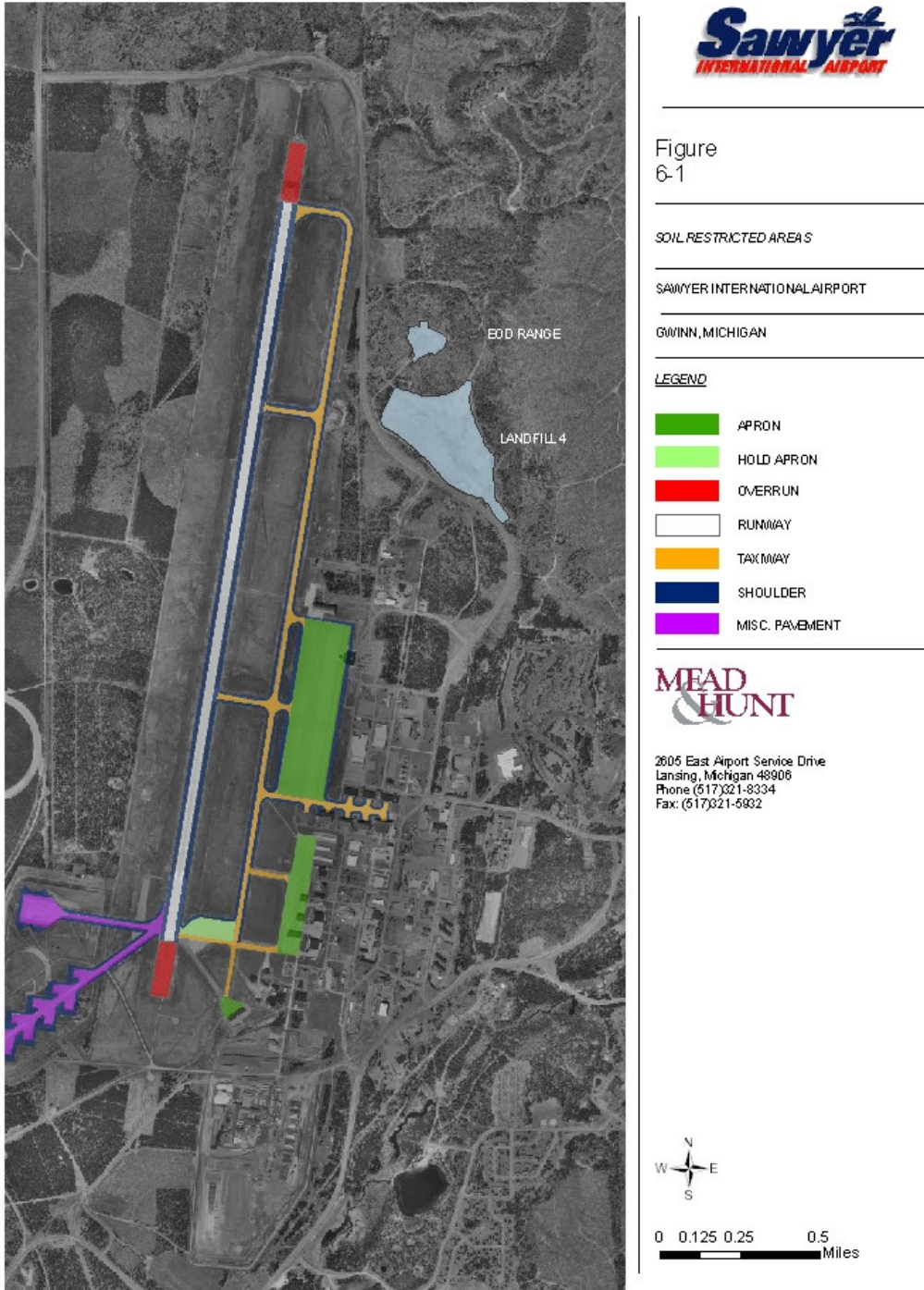
In accordance with the *Clean Water Act of 1977*, which established water quality standards, controls for discharges into surface and subsurface waters, and management plans for waste treatment, there are three (3) potential sources of water pollutants at Sawyer. These include sewage generated by the terminal and associated facilities, surface water runoff, and any existing underground contamination. In addition, there are several sites of environmental contamination due to previous Air Force operations which have resulted in land use restrictions associated with several of these sites. At the sites where contamination exceeds Michigan's "Generic Residential" clean up levels, restrictions exist on allowable uses of the property.

Restrictions in place on several sites at Sawyer include soil use and groundwater use. None of the groundwater use restrictions should impact further development as they are intended to prevent exposure to drinking contaminated groundwater and to prevent the alteration of the contaminant plume's size/location by prohibiting the installation of any water supply or extraction wells. Since the various development alternatives do not require the development of wells, it is not expected to be an issue.

According to the MDEQ, only two soil restricted areas may be of potential concern as it relates to this Master Plan. The Explosive Ordinance Disposal (EOD) Range and Land Fill number 4 (LF-4) are both located on the northeast side of Sawyer. They have been covered with engineered caps and any construction at either site is restricted. The EOD Range was the site of disposal of military ordinance and has a clay cover which is intended to shed precipitation and prevent contact with any explosive residues that might be present. LF-4 has an engineered cap system which includes a high density polyethylene liner, a gas collection system, and a protective sand and vegetative layer. Any damage to the cap system at either site would require immediate repair to equal or greater specification. The storm water management system around the cap perimeter must not be compromised. **Figure 6-1** illustrates the location of both the EOD Range and LF-4.

All other soil restricted areas permit construction where it would not involve removing existing buildings, roads, or other facilities. Any impact to these areas would require restoration to minimize the concentration of precipitation or runoff through the contaminated soils.

Coordination with the MDEQ and the United States Air Force Base Real Property Agency (AFRPA) environmental coordinator is strongly recommended in each phase of the airport improvement process.



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## **6.8 Department of Transportation Act, Section 4(f)**

Section 4(f) of the Department of Transportation Act provides that the Secretary of Transportation will not approve any program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance as determined by the officials having jurisdiction, thereof, unless there is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from the use.

To analyze the potential for Section 4(f) impacts, the 1999 EA was reviewed and agency coordination was conducted to determine if impacts could be expected. As a result of this analysis, it was determined that land acquisition is not anticipated for any project included in this Master Plan and acquisition of Section 4(f) property is not required. Therefore, Section 4(f) impacts will not be an issue and no further analysis is required at this time.

## **6.9 Historic, Archaeological, and Cultural Resources**

According to FAA *Environmental Desk Reference for Airport Actions*, two basic laws apply to this impact category. The first law, the National Historic Preservation Act of 1966, as amended “[r]ecommends measures to coordinate Federal historic preservation matters, to recommend measures to coordinate Federal historic preservation activities, and to comment on Federal actions affecting historic properties included in or eligible for inclusion in the National Register of Historic Places.” The second law, the Archaeological and Historic Preservation Act of 1974, “[p]rovides the survey, recovery, and preservation of significant scientific, prehistorical, historical, archeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally licensed, or federally funded project.”

The FAA is concerned that airport development should not adversely impact any historic, architectural, archeological, or cultural resources. Often airport projects require that buildings be removed or previously undisturbed earth be excavated. These activities can permanently remove evidence of a historic building or archaeological site. The FAA requires that the effects of proposed projects on potentially historic, archaeological, and cultural resources be determined prior to construction. In this instance, it has been determined through discussions with the State of Michigan Historic Preservation Office (SHPO) that there are no registered historic sites on or adjacent to Sawyer. However, potential impacts to archaeological resources should be considered during the formal environmental clearance process although no impacts are anticipated. Additional coordination with SHPO will be required during any environmental documentation process.

## **6.10 Biotic Communities**

Prior to the approval or the funding of proposed projects, the FAA must determine the extent of a proposed project’s impacts on biotic communities in the surrounding area. According to the FAA *Environmental Desk Reference for Airport Actions*, there are several categories for biotic communities

that must be analyzed including vegetation, wildlife (including aquatic fauna), threatened and endangered species, and wetlands.

According to the previously completed 1999 EA, approximately 35 percent (35%) of property owned by Sawyer is considered forested, but human activities have resulted in over half of this property being developed. In addition to aviation facilities, a majority of Sawyer owned property is maintained as lawns, athletic fields, and other types of landscaping including a 168 acre golf course.

The forested areas surrounding Sawyer provide habitat for wildlife. A loss of habitat is likely with the development of a crosswind runway and would result in the displacement of wildlife. However, the displacement would likely not be considered significant since wildlife would migrate to adjacent suitable areas.

To determine the potential for biotic impacts, the 1999 EA was reviewed, as well as formal coordination with various resource agencies including the MDNR and USFWS. As a result, some environmental concerns were identified including potential impacts to a state threatened species and state species of special concern in or around the project area. See Section 6.11 of this document for additional discussions on threatened and endangered species.

It should be noted that during the development of any formal environmental assessment, further studies and coordination with the MDNR and the USFWS will be required.

## 6.11 Endangered and Threatened Species

This section focuses on the potential impacts of the proposed development on species listed as endangered, threatened, or of special concern by the federal and state government. Endangered species are protected from harm pursuant to federal and state law. Species of special concern are not formally afforded regulatory protection; however, any reduction in their number or habitat is of concern from a state, regional, and/or national perspective.

*The Endangered Species Act of 1973 (ESA)*, as amended, provides for the protection of certain plants and animals, as well as the habitats in which they are found. In compliance with the ESA, agencies overseeing federally-funded projects are required to obtain from the USFWS information concerning any species listed, or proposed to be listed, which may be present in the area of the proposed project. Since the State of Michigan is a recipient of federal funds, as well as an agency overseeing the federally-funded project, coordination with the MDNR is required.

The MDNR provided early coordination and comments regarding the project area as part of the Master Plan study. According to the letter, dated December 11, 2007, "Records in the database indicate that a



qualified observer has documented the presence of special natural features at a site on or near the airport. The absence of records may mean that a site has not been surveyed. The only way to obtain a definitive statement on the presence of rare species is to have a competent biologist perform a field survey". The following list includes unique features that are known to occur on or near Sawyer:

- Intermittent wetland natural community
- Dry-mesic northern forest
- Narrow-leaved gentian (state threatened species)
- Frigga fritillary (state species of special concern)
- Fir clubmoss (state species of special concern)

All future development projects have the potential to impact one of the above listed species or natural communities. A "no effect" statement will be required by the MDNR for the state threatened narrow-leaved gentian before any land altering work begins. A determination of the presence of these species from a professional wildlife biologist will be needed during the environmental documentation process. Continued coordination with the MDNR will be required as a follow-up to the planning process and will be included in any future EA project prior to construction.

## **6.12 Wetlands**

The U.S. Environmental Protection Agency's *Clean Water Act* defines wetlands as: "[t]hose areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Federal regulations require that proposed actions avoid, to the greatest extent possible, any long-term and short-term impacts to wetlands including the destruction or altering of the functions and values of wetlands.

According to the 1999 EA completed for the base conversion, Sawyer has 117 acres of known and identified wetlands. The 1999 EA determined that the impacts associated with the development of a crosswind runway would be to a "man-made ditch and does not qualify as a wetland (USAF 3-101)". In addition, National Wetland Inventory (NWI) maps were reviewed during the alternatives development phase of the Master Planning process and found no wetland impacts or areas of concern related to the proposed development. It is likely additional coordination and field verification will be required during the NEPA environmental process as projects are undertaken at a later date.

## **6.13 Floodplains**

A floodplain is generally a flat, low-lying area adjacent to a stream or river that is subject to inundation during high flows. The relative elevation of different floodplains determines their frequency of flooding, ranging from rare flows to those experienced several times a year. For example, a 100-year floodplain

would include the area of inundation that has a frequency of occurring, on average, once every 100 years.

Federal regulations from the Department of Transportation direct that all airport development actions must avoid floodplains if another prudent and feasible alternative exists. If no other feasible alternative exists, activities in floodplains must be designed to minimize adverse impacts to the greatest extent possible.

To determine floodplain impacts, a review of the 1999 EA, Federal Emergency Management Agency (FEMA) floodplain data, and coordination with the MDEQ indicated that the Sawyer is not located within a floodplain. As such, floodplain impacts are not expected.

## **6.14 Coastal Zones and Coastal Barriers**

The *Coastal Zone Management Act of 1972* established the Federal Coastal Zone Management Program to encourage and assist states in preparing and implementing management programs to “*preserve, protect, develop, and where possible, to restore or enhance the resources of the nation’s coastal zone.*”

Sawyer, located inland in Gwinn, is not located in a coastal zone management area; therefore, development will not have an impact on the coastal resources.

## **6.15 Wild and Scenic Rivers**

The *Wild and Scenic Rivers Act of 1968* provides protection for certain free-flowing rivers, which have “outstanding or remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.”



To assess impacts to this environmental category, coordination with the MDNR indicated that wild and scenic rivers will not be impacted by any proposed project in the master plan. However, it should be noted that there are two wild and scenic rivers in the region. The Yellow Dog River which is located approximately 37 miles northwest and the Whitefish River located approximately 32 miles southeast. Neither of these rivers would be impacted by any improvement projects. As a result, Sawyer is not located in proximity to any wild or scenic rivers and therefore no impacts are expected.

## **6.16 Farmland**

The *Farmland Protection Policy Act of 1981* (FPPA) was enacted to minimize the extent to which federal actions and programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses.

Farmland can be classified as “prime farmland”, “unique farmland”, or “farmland that is of statewide or local importance” pursuant to the FPPA. Prime farmland has the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops. Unique farmland is defined as land other than prime farmland that is used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and vegetables. Any federal action which may result in conversion of farmland to a non-agricultural use requires coordination with the Natural Resource Conservation Services (NRCS).

All proposed development will occur on existing property which is not in agricultural protection or has been cleared for non-agricultural use. Therefore, no significant impact to prime or unique farmland is anticipated. Additional coordination is encouraged as part of the environmental process prior to construction.

## 6.17 Energy Supply and Natural Resources

This section examines the potential changes in the demand for energy or natural resources that would have a significant measurable effect on local supplies due to the implementation of a proposed project. Energy requirements associated with an airport usually fall into two categories: those which relate to changed demands for stationary facilities and those which involve the movement of air and ground vehicles. Examples of these are airfield lighting, terminal building heating and cooling systems, and aircraft and passenger vehicles.

FAA guidance typically states that airport improvement projects do not generally increase the consumption of energy or natural resources to the point that significant impacts would occur unless it is found that implementation of a proposed project would cause demand to exceed supply.

All proposed actions presented in this Master Plan may cause increased energy consumption during construction, but this increase will be temporary in nature and does not constitute a significant impact. As a result, no long-term impacts to energy supply and natural resources are anticipated with any of the proposed improvement projects.

## 6.18 Light Emissions

Aviation lighting required for security, obstruction clearance, and navigation are the chief contributors to light emissions radiating from airports. An analysis is necessary when projects include the introduction of new or the relocation of existing airport lighting facilities that may affect residential or other sensitive areas. For example, high-intensity strobe lights may shine directly into residences or overhead apron, parking, or streetlights to create glares that affect pilots and air traffic controllers. Only in these types of unusual circumstances would the impact of light emissions be considered sufficient to warrant a special study and a more detailed examination of alternatives.



The location and orientation of existing and proposed lighting systems are not expected to adversely affect local residences or the areas immediately surrounding Sawyer and therefore are not expected to be an issue.

## 6.19 Solid Waste

FAA Order 5050.4B, *Airport Environmental Handbook*, dictates that airport actions which relate only to airfield development (runways, taxiways, and related items) will not normally include any direct relationship to solid waste collection, control, or disposal other than that associated with the construction itself. Since there may be additional hangar development recommended as a part of this study, additional studies may be required during the environmental clearance process, although, no impacts related to solid waste are anticipated.

In addition to the generation of solid waste noted above, landfills are also an area of concern. Although often considered a land use issue, landfills near airports can act as wildlife attractants and are considered incompatible land uses. To address wildlife attractants near airports, FAA AC 150/5200-33B, *Hazardous Wildlife Attractants on or near Airports*, requires a minimum separation between landfills and airports of 5,000 feet for airports serving piston-powered aircraft and 10,000 feet for airports serving turbine-powered aircraft.

To determine potential landfill impacts, research of the local area and a search of the MDEQ regulated landfill database indicate that there are two active landfills in the region. The Marquette County Landfill is located approximately 14 miles northwest of Sawyer and the We Energies Presque Isle Power Plant hazardous waste landfill is located approximately 20 miles north of the City of Marquette. According to FAA guidance, these landfills meet the separation criteria mentioned above and as such, no landfill impacts are expected.

## 6.20 Construction Impacts

In order to minimize anticipated air quality, water quality, and soil erosion impacts associated with the proposed projects, all construction related activity will comply with the provisions specified in FAA Advisory Circular 150/5370-10, *Standards for Specifying Construction of Airport*. In accordance with the State of Michigan's *Soil Erosion and Sedimentation Control Act 451 of 1994* and the *Natural Resources and Environmental Protection Act, Part 91*, soil erosion permits issued by the County of Marquette will be required. In addition, all construction will be completed in



accordance with the Michigan Department of Transportation's *General Provisions for Construction of Airports*. All construction and demolition debris will be disposed of in accordance with applicable state

and federal criteria. Further analysis will be required to determine construction impacts and proper techniques to reduce potential impacts as specific projects are developed.

## **6.21 Environmental Contamination and Hazardous Waste**

Hazardous materials and hazardous waste management activities at Sawyer are governed by specific environmental regulations. The terms hazardous waste and hazardous materials are defined as hazardous by the *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*, 42 E.S.C 9601 et seq., as amended, and the *Solid Waste Disposal Act*, as amended by the *Resource Conservation and Recovery Act (RCRA)*, 42 U.S.C. 6901-6992. In general, hazardous waste or materials include substances that because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present substantial danger to public health or welfare or the environment when released into the environment. The State of Michigan defines hazardous substances under Section 3(P) of the *Michigan Environmental Response Act (MERA)* 307 which is enforced by the MDEQ.

Sawyer, previously a military base, received, stored, and utilized large quantities of hazardous materials. The most commonly utilized hazardous materials included aviation and motor fuels, various grades of petroleum products, lubricants, hydraulic fluids, solvents, paints, thinners, and compressed gases. There are multiple sites at Sawyer that have been identified as hazardous. Formal environmental clearance process as part of a NEPA document will require extensive coordination with state and federal regulatory agencies to determine the significance of any potential impacts and mitigation requirements prior to construction of any major projects.

## **6.22 Summary of Anticipated Impacts**

As previously mentioned, this environmental overview is not intended to be a substitute for the NEPA environmental clearance process as outlined in FAA Order 5050.4B, *Airport Environmental Handbook*. During the development of a NEPA compliant document for any proposed airport improvement project, each environmental category as outlined in FAA Order 5050.4B will require a greater level of analysis than what is provided in this Master Plan.

However, during the creation of this Master Plan, there were several environmental issues that were identified that may require additional review during an NEPA environmental clearance process prior to any proposed construction. Although several environmental issues were recognized, it should be noted that the potential environmental impacts are anticipated to be minimal and easily mitigated. These environmental issues include:

- Noise - Additional analysis is recommended during the formal environmental clearance process to verify no new noise sensitive land uses have developed in proximity to Sawyer due to changes in the aircraft fleet mix. FAA guidance directs a noise analysis be completed if a new crosswind runway is proposed. The closure of the Marquette County Airport and the relocation of aviation activity to the Sawyer is an example of sound land use planning. The relocation has increased the quality of life for Negaunee residents and the Sawyer location

allows for continued airport development without inducing significant noise levels on surrounding residents.

- **Compatible Land Use** - The noise analysis conducted in the 1999 EA indicates that land uses will not be impacted. During the development of any future environmental document, this issue should be reviewed to verify that no incompatible land uses have developed adjacent to Sawyer.
- **Water Quality** – Early coordination with the MDEQ and the United States Air Force BRAC environmental coordinator is strongly recommended throughout each phase of the airport improvement process.
- **Historic, Archaeological, and Cultural Resources** – Although there are no registered historic sites on or adjacent to Sawyer, potential impacts to archaeological resources should be considered during the formal environmental clearance process. Additional coordination with SHPO will be required during any environmental documentation process.
- **Endangered and Threatened Species** - A “no effect” statement will be required by the MDNR for the state threatened narrow-leaved gentian before any land altering work begins. A determination of the presence of this species by a professional wildlife biologist will be necessary during the environmental documentation process.
- **Wetlands** - It is likely additional coordination and field verification will be required with the MDEQ during the NEPA compliant environmental development process to delineate specific wetland boundaries.
- **Environmental Contamination & Hazardous Waste** - Multiple sites have been identified as hazardous or contaminated. The formal environmental clearance process will likely require coordination with state and federal regulatory agencies and a Phase I Hazardous Material evaluation to determine the significance of any potential impacts and mitigation requirements.