

FINDING OF NO SIGNIFICANT IMPACT FOR ON-BASE SNOWMOBILE TRAIL

AGENCY: Department of the Air Force

PROPOSED ACTION (On-Base Snowmobile Trail): Under this alternative, Grand Forks AFB would reroute the base's snowmobile trail to allow base residents to ride their snowmobiles on and off base. Snowmobiles would only be driven on the designated trail. Trails would only be used to gain access to off base trails and then to return to the rider's residence. Stop signs are placed at road crossings and occasional orange triangular trail blazers arrows are placed where necessary. The trail is approximately eight to twelve feet wide and nine to ten miles long.

ALTERNATIVES CONSIDERED: Under the second alternative, Grand Forks AFB would not allow snowmobile trails on Grand Forks AFB. Residents would have to transport the snowmobiles via trailers to off-base locations and then transport them back by the same means. The no action alternative would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders, the base's snowmobile club, would abide by the same rules and regulations stated under the proposed action.

ENVIRONMENTAL CONSEQUENCES:

Air Quality - Snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. North Dakota air quality is considered good and the area is in attainment for all criteria pollutants.

Noise - The operation of snowmobiles would increase the amount of noise pollution in the vicinity of the trails.

Wastes, Hazardous Materials, and Stored Fuels – The base's snowmobile trail would not impact wastes, hazardous materials, or stored fuels.

Water Resources – Surface water quality could degrade due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Provided best management practices are followed, there would be minimal impacts to ground water, surface water, water quality, and wetlands.

Biological Resources – Operation of snowmobiles would negatively impact vegetation and destroyed vegetation would need to be repaired immediately. Noise generation would impact wildlife and care would need to be taken when wildlife are in the vicinity of the trail.

Socioeconomic Resources – The base's snowmobile trail would not impact socioeconomic resources.

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14. ABSTRACT This final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of an on-base snowmobile trail on Grand Forks AFB, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise, Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources Cultural Resources; Land Use; Transportation Systems; Airspace/ Airfield Operations; Safety and Occupation Health; Environmental Management and Environmental Justice. In addition to the Proposed Action, the Alternative Action and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.			
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Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use – Siting for the proposed action has been approved by the Facility Board.

Transportation Systems – The proposed construction would have minor adverse impacts to base roads due to snowmobiles crossing a limited number of base streets.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

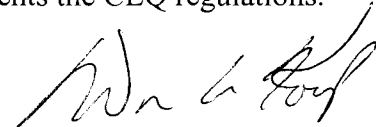
Safety and Occupational Health – According to the base’s safety office, portions of the trail should be eliminated to minimize safety concerns. All culverts and guy wires along the route would have to be flagged or otherwise identified.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of this project.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, On-Base Snowmobile Trail.

CONCLUSION: Based on the Environmental Assessment performed for On-Base Snowmobile Trail, no significant environmental impact is anticipated from the proposed action. Based upon this finding, an Environmental Impact Statement is not required for this action. This document and the supporting AF Form 813 fulfill the requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction 32-7061, which implements the CEQ regulations.


WAYNE A. KOOP, R.E.M., GM-13
Environmental Management Flight Chief

Date: 1 APR 04

Final

**Environmental Assessment
ON-BASE SNOWMOBILE TRAIL**

**At
Grand Forks AFB, North Dakota**

22 Mar 04

Cover Sheet

Agency: United States Air Force (USAF)

Action: The action proposes an on-base snowmobile trail at Grand Forks Air Force Base (AFB), North Dakota.

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Designation: Final Environmental Assessment (EA)

Abstract: This final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of an on-base snowmobile trail on Grand Forks AFB, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise, Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupation Health; Environmental Management; and Environmental Justice.

In addition to the Proposed Action, the Alternative Action and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated construction activities along with other concurrent actions at Grand Forks AFB and the surrounding area.

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ACRONYMS, ABBREVIATIONS, AND TERMS

AAM	Annual Arithmetic Mean
ACM	Asbestos Containing Material
AFB	Air Force Base
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zone
AMC	Air Mobility Command
APZs	Accident Potential Zones
ARPA	Archeological Resource Protection Act
ARW	Air Refueling Wing
Ave	Avenue
BASH	Bird Aircraft Strike Hazard
Blvd	Boulevard
BMPs	Best Management Practices
CAA	Clean Air Act
CWA	Clean Water Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dBa	Decibel
DNL	Day-Night Average A-Weighted Sound Level
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
F	Fahrenheit
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
ft	feet
ft ³ /s	feet cubed per meter
HAP	Hazardous Air Pollutants
hr	hour
H ₂ S	Hydrogen Sulfide
IRP	Installation Restoration Program

LT	Long-Term
MBTA	Migratory Bird Treaty Act
MFH	Military Family Housing
mph	Miles Per Hour
MSL	Mean Sea Level
$\mu\text{g}/\text{m}^3$	Micrograms Per Meter Cubed
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
ND	North Dakota
NDAAQS	North Dakota National Ambient Air Quality Standards
NDAC	North Dakota Administrative Code
NDDH	North Dakota Department of Health
NDPDES	North Dakota Pollutant Discharge Elimination System
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
O_3	Ozone
OSHA	Occupational Safety and Health Act
Pb	Lead
PM_{10}	Particulate Matter 10 Microns In Diameter
$\text{PM}_{2.5}$	Particulate Matter 2.5 Microns In Diameter
POL	Petroleum Oil Lubricant
ppm	Parts Per Million
PSD	Prevention of Significant Deterioration
RACM	Regulated Asbestos Containing Materials
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
SAGE	Strategic Air Ground Equipment
SARA	Superfund Amendments and Reauthorization Act
SO_2	Sulfur Dioxide
SO_x	Sulfur Dioxide
St	Street

ST	Short-Term
tpy	Tons Per Year
TSCA	Toxic Substance Control Act
TSI	Thermal System Insulation
US	United States
USACE	United States Army Corps of Engineers
USAF	United States Air Force
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

EXECUTIVE SUMMARY

The United States Air Force proposes an on-base snowmobile trail on Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: Current Military Family Housing (MFH) construction projects have blocked off portions of the base's trail system inside the main perimeter fence along County Road B3. This trail was utilized by base residents to ride their snowmobiles on and off base. A new route is now required to allow the base snowmobile club, Freedom Riders, to operate on base.

Proposed Action: Under the proposed action, Grand Forks AFB would reroute the base's snowmobile trail to allow base residents to ride their snowmobiles on and off base. Snowmobiles would only be driven on the designated trail. Trails would only be used to gain access to off base trails and then to return to the rider's residence. Stop signs are placed at road crossings and occasional orange triangular trail blazers arrows are placed where necessary. The trail is approximately eight to twelve feet wide and nine to ten miles long.

On-Base Trail Elimination : Under the alternative action, Grand Forks AFB would not allow snowmobile trails on Grand Forks AFB. Residents would have to transport the snowmobiles via trailers to off-base locations and then transport them back by the same means.

No Action Alternative: Under the no action alternative, Grand Forks AFB would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders would abide by the same rules and regulations stated under the proposed action.

Impacts by Resource Area

Air Quality - Snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. North Dakota air quality is considered good and the area is in attainment for all criteria pollutants.

Noise - The operation of snowmobiles would increase the amount of noise pollution in the vicinity of the trails.

Wastes, Hazardous Materials, and Stored Fuels – The base's snowmobile trail would not impact wastes, hazardous materials, or stored fuels.

Water Resources – Surface water quality could degrade due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Provided BMPs are followed, there would be minimal impacts to ground water, surface water, water quality, and wetlands.

Biological Resources – Operation of snowmobiles would negatively impact vegetation and

destroyed vegetation would need to be repaired immediately. Noise generation would impact wildlife and care would need to be taken when wildlife are in the vicinity of the trail.

Socioeconomic Resources – The base’s snowmobile trail would not impact socioeconomic resources.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use – Siting for the proposed action has been approved by the Facility Board.

Transportation Systems – The proposed construction would minor adverse impact to transportation systems on base due to snowmobiles crossing a limited number of base streets.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

Safety and Occupational Health – According the base’s safety office, portions of the trail system should be eliminated to minimize safety concerns. All culverts and guy wires along the route would have to be flagged or otherwise identified.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of this project.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

This Environmental Assessment (EA) examines the potential for impacts to the environment resulting from an on-base snowmobile trail on Grand Forks Air Force Base (AFB). As required by the *National Environmental Policy Act* (NEPA) of 1969, federal agencies must consider environmental consequences in their decision making process. The EA provides analysis of the potential environmental impacts from both the proposed action and its alternatives.

1.1 INTRODUCTION

Located in northeastern North Dakota (ND), Grand Forks AFB is the first core refueling wing in Air Mobility Command (AMC) and home to 48 KC-135R Stratotanker aircraft. The host organization at Grand Forks AFB is the 319th Air Refueling Wing (ARW). Its mission is to guarantee global reach, by extending range in the air, supplying people and cargo where and when they are needed and provides air refueling and airlift capability support to Air Force (AF) operations anywhere in the world, at any time. Organizational structure of the 319th ARW consists primarily of an operations group, maintenance group, mission support group, and medical group.

The location of the proposed action (and the alternative actions) would be at Grand Forks AFB, ND. Grand Forks AFB covers approximately 5,420 acres of government-owned land and is located in northeastern ND, about 14 miles west of Grand Forks, along United States (US) Highway 2. Grand Forks (population 49,321) is the third largest city in ND. Appendix A includes a Location Map. The city, and surrounding area, is a regional center for agriculture, education, and government. It is located approximately 160 miles south of Winnipeg, Manitoba, and 315 miles northwest of Minneapolis, Minnesota. The total base population, as of May 2003, is approximately 6,934. Of that, 2,849 are military, 3,747 are military dependents, and 338 civilians working on base (Grand Forks AFB, 2003).

A majority of the snowmobile trail is located in the Military Family Housing (MFH) area of Grand Forks AFB. The other portions of the trail are located along the base's multi-use trail, Eielson Street (St), and Steen Avenue (Ave).

1.2 NEED FOR THE ACTION

Current Military Family Housing (MFH) construction projects have blocked off portions of the base's trail system inside the main perimeter fence along County Road B3. This trail was utilized by base residents to ride their snowmobiles on and off base. A new route is now required to allow the base snowmobile club, Freedom Riders, to operate on base.

1.3 OBJECTIVES FOR THE ACTION

The purpose of the proposed action is to provide an on-base snowmobile trail on Grand Forks AFB to allow base residents to travel to off-base trails without transporting their snowmobiles by trailer.

1.4 SCOPE OF EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with an on-base snowmobile trail on Grand Forks AFB. This analysis covers only those items listed above. It does not include any previous construction of facilities, parking lots, associated water drainage structures, or other non-related construction activities.

The following must be considered under the NEPA, Section 102(E).

- Air Quality
- Noise
- Wastes, Hazardous Materials, and Stored Fuels
- Water Resources
- Biological Resources
- Socioeconomic Resources
- Cultural Resources
- Land Use
- Transportation Systems
- Airspace/Airfield Operations
- Safety and Occupation Health
- Environmental Management
- Environmental Justice

1.5 DECISION(S) THAT MUST BE MADE

This EA evaluates the environmental consequences from an on-base snowmobile trail on Grand Forks AFB. NEPA requires that environmental impacts be considered prior to final decision on a proposed project. The Environmental Management Flight Chief will determine if a Finding of Significant Impact can be signed or if an Environmental Impact Statement (EIS) must be prepared. Preparation of an environmental analysis must be accomplished prior to a final decision regarding the proposed project and must be available to inform decision makers of potential environmental impacts of selecting the proposed action or either of the alternatives.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

These regulations require federal agencies to analyze potential environmental impacts of proposed actions and alternatives and to use these analyses in making decisions on a proposed action. All cumulative effects and irremediable commitment of resources must also be assessed during this process. The Council on Environmental Quality (CEQ) regulations declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).

- Aid in an agency's compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, specifies the procedural requirements for the implementation of NEPA and the preparation of an EA. Other environmental regulatory requirements relevant to the Proposed Action and alternatives are also in this EA. Regulatory requirements including, but not restricted to the following programs will be assessed:

- AF Environmental Impact Analysis Process (EIAP) (32 CFR 989)
- AFI 32-7020, Environmental Restoration Program
- AFI 32-7040, Air Quality Compliance
- AFI 32-7041, Water Quality Compliance
- AFI 32-7042, Solid and Hazardous Waste Compliance
- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program
- AFI 32-7064, Integrated Natural Resource Management
- Archaeological Resources Protection Act (ARPA) [16 U.S.C. Sec 470a-11, *et seq.*, as amended]
- Clean Air Act (CAA) [42 U.S.C. Sec 7401, *et seq.*, as amended]
- Clean Water Act (CWA) [33 U.S.C. Sec 400, *et seq.*]
- CWA [33 U.S.C. Sec 1251, *et seq.*, as amended]
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) [42 U.S.C. Sec. 9601, *et seq.*]
- Defense Environmental Restoration Program [10 U.S.C. Sec. 2701, *et seq.*]
- Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 [42 U.S.C. Sec. 11001, *et seq.*]
- Endangered Species Act (ESA) [16 U.S.C. Sec 1531-1543, *et seq.*]
- Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality as Amended by EO 11991
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898, Environmental Justice
- EO 12989 Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- Hazardous Materials Transportation Act of 1975 [49 U.S.C. Sec 1761, *et seq.*]
- NEPA of 1969 [42 U.S.C. Sec 4321, *et seq.*]
- National Historic Preservation Act (NHPA) of 1966 [16 U.S.C. Sec 470, *et seq.*, as amended]
- The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 [Public Law 101-601, 25 U.S.C. Sec. 3001-3013, *et seq.*]

- Noise Control Act of 1972 [42 U.S.C. Sec. 4901, *et seq.*, Public Law 92-574]
- ND Air Pollution Control Act (Title 23) and Regulations
- ND Air Quality Standards (Title 33)
- ND Hazardous Air Pollutants Emission Standards (Title 33)
- Occupational Safety and Health Act (OSHA) of 1970 [29 U.S.C. Sec. 651, *et seq.*]
- Resource Conservation and Recovery Act (RCRA) of 1976 [42 U.S.C. Sec. 6901, *et seq.*]
- Toxic Substances Control Act (TSCA) of 1976 [15 U.S.C. Sec. 2601, *et seq.*]

Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit to cover base-wide industrial activities. No construction would be involved with the snowmobile trail; therefore a new NPDES permit would not be required.

Scoping for this EA included discussion of relevant issues with members of the environmental management and bioenvironmental flights. Scoping letters requesting comments on possible issues of concern were sent to agencies with pertinent resource responsibilities. In accordance with AFI 32-7061, a copy is submitted to the ND Division of Community Services.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

Based on the descriptions of the relevant environmental resources presented in Section 3 and the predictions and analyses presented in Section 4, this section presents a comparative summary matrix of the alternatives (the heart of the analysis) providing the decision maker and the public with a clear basis for choice among the alternatives.

This section has five parts:

- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Detailed Study
- Detailed Descriptions of the Three Alternatives Considered
- Comparison of Environmental Effects of the Proposed Action and Alternatives
- Identification of the Preferred Alternative

2.2 SELECTION CRITERIA FOR ALTERNATIVES

Selection criteria used to evaluate the Proposed and Alternative Actions include the following:

- *Criteria 1: Provide an on-base snowmobile trail for base residents.*

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

No alternatives were eliminated from detailed study.

2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

This section describes the activities that would occur under three alternatives: the proposed action and the two action alternatives. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

2.4.1 Alternative 1 (Proposed Action): On-Base Snowmobile Trail

Under this alternative, Grand Forks AFB would reroute the base's snowmobile trail to allow base residents to ride their snowmobiles on and off base. Snowmobiles would only be driven on the designated trail. Trails would only be used to gain access to off base trails and then to return to the rider's residence. The club requests a waiver of liability insurance because each member is required to have liability insurance on their snowmobile as per North Dakota law. The Freedom Riders operate under a "Permission to Organize" dated 5 August 98 and signed by the Mission Support Group commander. The club established the trails on base that same year. The trails open on 1 December or when there is a minimum of 4 inches of snow, whichever is later. The Mission Support Group Commander is briefed annually on the club and makes the decision to open the trails. Signs are placed along the trail annually but no other maintenance is conducted. Occasionally, a limb may be removed but since all trails are established as multi-use trails, there

are no other maintenance issues. Stop signs are placed at road crossings and occasional orange triangular trail blazers arrows are placed where necessary. The trail is approximately eight to twelve feet wide and nine to ten miles long. The base requires annual safety and trail usage training by all members of the Freedom Riders using the trail. Safety training certificates are issued immediately after receiving the training.

2.4.2 Alternative 2: On-Base Trail Elimination

Under the alternative action, Grand Forks AFB would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders would abide by the same rules and regulations stated under the proposed action.

2.4.3 Alternative 3 (No Action Alternative): Status Quo

Under the no action alternative, Grand Forks AFB would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders would abide by the same rules and regulations stated under the proposed action.

2.5 DESCRIPTION OF PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS RELEVANT TO CUMULATIVE IMPACTS

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB. There are several other construction and demolition projects occurring on Grand Forks AFB in the same time frame. These projects are addressed under separate NEPA documents.

2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

Potential impacts from implementing the Proposed Action, Alternative 2, and the No Action Alternative are discussed in detail in Chapter 4.

Table 2.6.1: Summary of Environmental Impacts			
	Proposed Action	Alternative 1	No Action Alternative
Legend: ST = short-term; LT = long-term			
Air Quality	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Noise	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Wastes, Hazardous Materials, and Stored Fuels	None	None	None
Water Resources			
Groundwater	Minor Adverse ST Impact	None	Minor Adverse ST Impact
Surface Water	Minor Adverse ST Impact	None	Minor Adverse ST Impact
Wastewater	None	None	None
Water Quality	Minor Adverse ST Impact	None	Minor Adverse ST Impact
Wetlands	None	None	None

Table 2.6.1: Summary of Environmental Impacts			
	Proposed Action	Alternative 1	No Action Alternative
Biological Resources			
Vegetation	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Wildlife	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Threatened and Endangered Species	None	None	None
Socioeconomic Resources			
	None	None	None
Cultural Resources			
	None	None	None
Land Use			
	None	None	None
Transportation Systems	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Airspace/Airfield Operations			
Aircraft Safety	None	None	None
Airspace Compatibility	None	None	None
Safety and Occupational Health	Minor Adverse LT Impact	None	Minor Adverse LT Impact
Environmental Management			
Installation Restoration Program	None	None	None
Geological Resources	None	None	None
Pesticide Management	None	None	None
Environmental Justice	None	None	None

2.7 IDENTIFICATION OF PREFERRED ALTERNATIVE

The preferred action is Alternative 1 (Proposed Action): *On-Base Snowmobile Trail*.

3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section succinctly describes the operational concerns and the environmental resources relevant to the decision that must be made concerning this proposed action. Environmental concerns and issues relevant to the decision to be made and the attributes of the potentially affected environment are studied in greater detail in this section.

This descriptive section, combined with the definitions of the three alternatives in Section 2, and their predicted effects in Section 4, establish the scientific baseline against which the decision-maker and the public can compare and evaluate the activities and effects of all three alternatives.

3.2 AIR QUALITY

Grand Forks AFB has a humid continental climate that is characterized by frequent and drastic weather changes. The summers are short and humid with frequent thunderstorms. Winters are long and severe with almost continuous snow cover. The spring and fall seasons are generally short transition periods. The average annual temperature is 40° Fahrenheit (F) and the monthly mean temperature varies from 6° F in January to 70° F in July. Mean annual precipitation is 19.5 inches. Rainfall is generally well distributed throughout the year, with summer being the wettest season and winter the driest. An average of 34 thunderstorm days per year is recorded, with some of these storms being severe and accompanied by hail and tornadoes. Mean annual snowfall recorded is 40 inches with the mean monthly snowfall ranging from 1.6 inches in October to 8.0 inches in March. Relative humidity averages 58 percent annually, with highest humidities being recorded in the early morning. The average humidity at dawn is 76 percent. Mean cloud cover is 48 percent in the summer and 56 percent in the winter (USAF, 2003).

Table 3.2-1: Climate Data for Grand Forks AFB, ND						
Month	Mean Temperature (°F)			Precipitation (Inches)		
	Maximum	Minimum	Monthly	Mean	Maximum	Minimum
January	15	-1	6	0.7	2.4	0.1
February	21	5	13	0.5	3.2	0.0
March	34	18	26	1.0	2.9	0.0
April	53	32	41	1.5	4.0	0.0
May	69	47	56	2.5	7.8	0.5
June	77	56	66	3.0	8.1	0.8
July	81	61	70	2.7	8.1	0.5
August	80	59	67	2.6	5.5	0.1
September	70	49	57	2.3	6.2	0.3
October	56	37	44	1.4	5.7	0.1
November	34	20	26	0.7	3.3	0.0
December	20	6	12	0.6	1.4	0.0

Source: AFCCC/DOO, October 1998

Wind speed averages 10 miles per hour (mph). A maximum wind speed of 74 mph has been recorded. Wind direction is generally from the northwest during the late fall, winter, and spring, and from the southeast during the summer.

Grand Forks County is included in the ND Air Quality Control Region. This region is in attainment status for all criteria pollutants. In 1997, the ND Department of Health (NDDH) conducted an Air Quality Monitoring Survey that indicated that the quality of ambient air in ND is generally good as it is located in an attainment area (NDDH, 1998). Grand Forks AFB has the following air permits: T5-F78004 (permit to operate) issued by NDDH and a CAA Title V air emissions permit.

The United States Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS), which define the maximum allowable concentrations of pollutants that may be reached, but not exceeded within a given time period. The NAAQS regulates the following criteria pollutants: Ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter. The ND Ambient Air Quality Standards (NDAAQS) were set by the State of ND. These standards are more stringent and emissions for operations in ND must comply with the Federal or State standard that is the most restrictive. There is also a standard for hydrogen sulfide (H₂S) in ND.

Prevention of significant deterioration (PSD) regulations establish SO₂, particulate matter 10 microns in diameter (PM₁₀), and NO₂ that can be emitted above a premeasured amount in each of three class areas. Grand Forks AFB is located in a PSD Class II area where moderate, well-controlled industrial growth could be permitted. Class I areas are pristine areas and include national parks and wilderness areas. Significant increases in emissions from stationary sources (100 tons per year (tpy) of CO, 40 tpy of nitrogen oxides (NO_x), volatile organic compounds (VOCs), or sulfur oxides (SO_x), or 15 tpy of PM₁₀) and the addition of major sources requires compliance with PSD regulations. There is also a 25 ton/year level for total particulate.

Air pollutants include O₃, CO, NO₂, SO₂, Pb, and particulate matter. Ground disturbing activities create PM₁₀ and particulate matter 2.5 microns in diameter (PM_{2.5}). Combustion creates CO, SO₂, PM₁₀, and PM_{2.5} particulate matter and the precursors (VOC and NO₂) to O₃. Only a small amount of Hazardous Air Pollutants (HAP) are generated from internal combustion processes or earth-moving activities. The Grand Forks AFB Final Emissions Survey Report (USAF, 1996) reported that Grand Forks AFB only generated small levels HAPs, 10.3 tpy of combined HAPs and 2.2 tpy maximum of a single HAP (methyl ethyl ketone). Methyl Ethyl Ketone is associated with aircraft and vehicle maintenance and repair. Secondary sources include fuel storage and dispensing (USAF, 2001a).

**Table 3.2-2
National Ambient Air Quality Standards (NAAQS) and ND Ambient Air Quality Standards (NDAAQS)**

Pollutant	Averaging Time	NAAQS $\mu\text{g}/\text{m}^3$ (ppm) ^a		NDAAQS $\mu\text{g}/\text{m}^3$ (ppm) ^a
		Primary ^b	Secondary ^c	
O ₃	1 hr	235 (0.12)	Same	Same
	8 hr ^e	157 (0.08)	Same	None
CO	1 hr	40,000 (35)	None	40,000 (35)
	8 hr	10,000 (9)	None	10,000 (9)
NO ₂	AAM ^d	100 (0.053)	Same	Same
SO ₂	1 hr	None	None	715 (0.273)
	3 hr	None	1,300 (0.5)	None
	24 hr	365 (0.14)	None	260 (0.099)
	AAM	80 (0.03)	None	60 (0.023)
PM ₁₀	AAM	50	Same	Same
	24 hr	150	Same	Same
PM _{2.5} ^e	AAM	65	Same	None
	24 hr	15	Same	None
Pb	¼ year	1.5	Same	Same
H ₂ S	1 hr	None	None	280 (0.20)
	24 hr	None	None	140 (0.10)
	3 mth	None	None	28 (0.02)
	AAM	None	None	14 (10)
	Instantaneous			14 (10)

^a $\mu\text{g}/\text{m}^3$ – micrograms per cubic meter; ppm – parts per million

^bNational Primary Standards establish the level of air quality necessary to protect the public health from any known or anticipated adverse effects of pollutant, allowing a margin of safety to protect sensitive members of the population.

^cNational Secondary Standards establish the level of air quality necessary to protect the public welfare by preventing injury to agricultural crops and livestock, deterioration of materials and property, and adverse impacts on the environment.

^dAAM – Annual Arithmetic Mean.

^eThe Ozone 8-hour standard and the PM 2.5 standards are included for information only. A 1999 federal court ruling blocked implementation of these standards, which USEPA proposed in 1997. USEPA has asked the US Supreme Court to reconsider that decision (USEPA, 2000).

PM₁₀ is particulate matter equal to or less than 10 microns in diameter.

PM_{2.5} is particulate matter equal to or less than 2.5 microns in diameter.

Source: 40 CFR 50, ND Air Pollution Control Regulations – North Dakota Administrative Code (NDAC) 33-15

3.3 NOISE

Noise generated on Grand Forks AFB consists mostly of aircraft, vehicular traffic and construction activity. Most noise is generated from aircraft during takeoff and landing and not from ground traffic. Noise levels are dependent upon type of aircraft, type of operations, and distance from the observer to the aircraft. Duration of the noise is dependent upon proximity of the aircraft, speed, and orientation with respect to the observer.

Table 3.3-1 Typical Decibel Levels Encountered in the Environment and Industry			
Sound Level (dBA) ^a	Maximum Exposure Limits	Source of Noise	Subjective Impression
10			Threshold of hearing
20		Still recording studio; Rustling leaves	
30		Quiet bedroom	
35		Soft whisper at 5 ft ^b ; Typical library	
40		Quiet urban setting (nighttime); Normal level in home	Threshold of quiet
45		Large transformer at 200 ft	
50		Private business office; Light traffic at 100 ft; Quiet urban setting (daytime)	
55		Window air conditioner; Men's clothing department in store	Desirable limit for outdoor residential area use (EPA)
60		Conversation speech; Data processing center	
65		Busy restaurant; Automobile at 100 ft	Acceptable level for residential land use
70		Vacuum cleaner in home; Freight train at 100 ft	Threshold of moderately loud
75		Freeway at 10 ft	
80		Ring alarm clock at 2 ft; Kitchen garbage disposal; Loud orchestral music in large room	Most residents annoyed
85		Printing press; Boiler room; Heavy truck at 50 ft	Threshold of hearing damage for prolonged exposure
90	8 hr ^c	Heavy city traffic	
95	4 hr	Freight train at 50 ft; Home lawn mower	
100	2 hr	Pile driver at 50 ft; Heavy diesel equipment at 25 ft	Threshold of very loud
105	1 hr	Banging on steel plate; Air Hammer	
110	0.5 hr	Rock music concert; Turbine condenser	
115	0.25 hr	Jet plane overhead at 500 ft	
120	< 0.25 hr	Jet plane taking off at 200 ft	Threshold of pain
135	< 0.25 hr	Civil defense siren at 100 ft	Threshold of extremely loud

^adBA – decibals
^bft – feet
^chr - hours
Source: US Army, 1978

Table 3.3-2 Approximate Sound Levels (dBA) of Construction Equipment						
Equipment Type	Sound Levels (dBA) at Various Distances (ft)					
	50	100	200	400	800	1,600
Front-end Loader	84	78	72	66	60	54
Dump Truck	83	77	71	65	59	53
Truck	83	77	71	65	59	53
Tractor	84	78	72	66	58	52

Source: Thurman, 1976; US Army, 1978

Because military installations attract development in proximity to their airfields, the potential exists for urban encroachment and incompatible development. The USAF utilizes a program known as AICUZ to help alleviate noise and accident potential problems due to unsuitable community development. AICUZ recommendations give surrounding communities alternatives to help prevent urban encroachment. Noise contours are developed from the Day-Night Average A-Weighted Sound Level (DNL) data which defines the noise created by flight operations and ground-based activities. The AICUZ also defines Accident Potential Zones (APZs), which are rectangular corridors extending from the ends of the runways. Recommended land use activities and densities in the APZs for residential, commercial, and industrial uses are provided in the base's AICUZ study. Grand Forks AFB takes measures to minimize noise levels by evaluating aircraft operations. Blast deflectors are utilized in designated areas to deflect blast and minimize exposure to noise.

3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

Hazardous wastes, as listed under the RCRA, are defined as any solid, liquid, contained gaseous, or combination of wastes that pose a substantive or potential hazard to human health or the environment. On-base hazardous waste generation involves three types of on-base sites: an accumulation point (90-day), satellite accumulation points, and spill cleanup equipment and materials storage (USAF, 2001c). Discharge and emergency response equipment is maintained in accessible areas throughout Grand Forks AFB. The Fire Department maintains adequate fire response and discharge control and containment equipment. Equipment stores are maintained in buildings 523 and 530. Petroleum contaminated soils generated from excavations throughout the base can be treated at the land treatment facility located on base. These solid wastes are tilled or turned several times a year to remediate the soils to acceptable levels.

Hardfill, construction debris, and inert waste generated by Grand Forks AFB are disposed of at a permitted off-base landfill. All on-base household garbage and solid waste is collected by a contractor and transported to the Grand Forks County Landfill, which opened in 1982.

Recyclable materials from industrial facilities are collected in the recycling facility, off the southeast corner of building 408. Paper, glass, plastics, cardboard, and wood are collected in separate storage bins. Curbside containers are used in housing for recyclable materials. A contractor collects these materials and transports them off base.

The Environmental Management Flight manages the hazardous material through a contract with Pacific Environmental Services. Typical hazardous materials include reactive materials such as explosives, ignitables, toxics, and corrosives. Improper storage can impact human health and the safety of the environment.

Since Grand Forks AFB is a military installation with a flying mission, there are several aboveground and underground fuel storage tanks. None of the alternatives would impact fuel storage tanks.

3.5 WATER RESOURCES

3.5.1 Ground Water

Chemical quality of ground water is dependent upon the amount and type of dissolved gases, minerals, and organic material leached by water from surrounding rocks as it flows from recharge to discharge areas. The water table depth varies throughout the base, from a typical 1-3 ft to 10 ft or more below the surface.

Even though the Dakota Aquifer has produced more water than any other aquifer in Grand Forks County, the water is very saline and generally unsatisfactory for domestic and most industrial uses. Its primary use is for livestock watering. It is a sodium chloride type water with total dissolved solids concentrations of about 4,400 ppm. The water generally contains excessive chloride, iron, sulfate, total dissolved solids, and fluoride. The water from the Dakota is highly toxic to most domestic plants and small grain crops, and in places, the water is too highly mineralized for use as livestock water (Hansen and Kume, 1970).

Water from wells tapping the Emerado Aquifer near Grand Forks AFB is generally of poor quality due to upward leakage of poor quality water from underlying bedrock aquifers. It is sodium sulfate type water with excessive hardness, chloride, sulfate, and total dissolved solids. Water from the Lake Agassiz beach aquifers is usually of good chemical quality in Grand Forks County. The water is a calcium bicarbonate type that is relatively soft. The total dissolved content ranges from 308 to 1,490 ppm. Most water from beach aquifers is satisfactory for industrial, livestock, and agricultural uses (Hansen and Kume, 1970).

Grand Forks AFB draws 85 to 90 percent of its water for industrial, commercial and housing functions from the City of Grand Forks and 10 to 15 percent from Agassiz Water.

3.5.2 Surface Water

Natural surface water features located on or near Grand Forks AFB are the Turtle River and Kellys Slough National Wildlife Refuge (NWR). Drainage from surface water channels ultimately flows into the Red River.

The Turtle River, crossing the base boundary at the northwest corner, is very sinuous and generally flows in a northeasterly direction. It receives surface water runoff from the western portion of Grand Forks AFB and eventually empties into the Red River of the North that flows north to Lake Winnipeg, Canada. The Red River drainage basin is part of the Hudson Bay drainage system. At Manvel, ND, approximately 10 miles northeast of Grand Forks AFB, the mean discharge of the Turtle River is 50.3 feet cubed per second (ft³/s). Peak flows result from spring runoff in April and minimum flows (or no flow in some years) occur in January and February.

NDDH has designated the Turtle River to be a Class II stream, it may be intermittent, but, when flowing, the quality of the water, after treatment, meets the chemical, physical, and

bacteriological requirements of the NDDH for municipal use. The designation also states that it is of sufficient quality to permit use for irrigation, for propagation of life for resident fish species, and for boating, swimming, and other water recreation.

Kelly's Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR receives surface water runoff from the east half of the base and effluent from the base sewage lagoons located east of the base. Surface water flow of the slough is northeasterly into the Turtle River Drainage from surface water channels ultimately flowing into the Red River. Floodplains are limited to an area 250 ft on either side of Turtle River (about 46 acres on base). Appendix C contains a map depicting floodplains. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency (FEMA).

Surface water runoff leaves Grand Forks AFB at four primary locations related to identifiable drainage areas on base. The four sites are identified as northeast, northwest, west, and southeast related to the base proper. These outfalls were approved by the NDDH as stated in the Grand Forks AFB ND Pollutant Discharge Elimination System (NDPDES) Permit NDR02-0314 Stormwater Discharges from Industrial Activity. Of the four outfall locations, the west and northwest sites flow into the Turtle River, the northeast site flows to the north ditch and the southeast outfall flows into the south ditch. The latter two flow to Kellys Slough and then the Turtle River. All drainage from these surface water channels ultimately flows into the Red River. The Bioenvironmental Engineering Office samples the four outfall locations during months when de-icing activities occur on base.

3.5.3 Wastewater

Grand Forks AFB discharges its domestic and industrial wastewater to four stabilization lagoons located east of the main base. The four separate treatment cells consist of one primary treatment cell, two secondary treatment cells, and one tertiary treatment cell. Wastewater effluent is discharged under ND Permit ND0020621 into Kellys Slough. Wastewater discharge occurs for about one week, sometime between mid-April through October. Industrial wastewater at the base comprises less than ten percent of the total flow to the treatment lagoons.

3.5.4 Water Quality

According to the National Water Quality Inventory Report (USEPA, 1995), ND reports the majority of rivers and streams have good water quality. Natural conditions, such as low flows, can contribute to violations of water quality standards. During low flow periods, the rivers are generally too saline for domestic use. Grand Forks AFB receives water from Grand Forks and Lake Agassiz Water. The city recovers its water from the Red River and the Red Lake River, while the water association provides water from aquifers. The water association recovers water from well systems within glacial drift aquifers (USAF, 1999). The 319th Civil Engineering Squadron tests the water received on base daily for fluorine and chlorine. The 319th

Bioenvironmental Flight collects monthly bacteriological samples to be analyzed at the ND State Laboratory.

3.5.5 Wetlands

About 246,900 acres in the county are drained wetland Type I (wet meadow) to Type V (open freshwater). Approximately 59,500 acres of wetland Type I to V are used for wetland habitat. Wetland Types IV and V include areas of inland saline marshes and open saline water. Kellys Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR is the most important regional wetland area in the Grand Forks vicinity. EO 11990 requires zero loss of wetlands. Grand Forks AFB has 49 wetlands, covering 23.9 acres of wetlands (see Appendix C), including 33 jurisdictional wetlands covering 12.2 acres. Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in drainage ways leading from the wastewater treatment lagoons to Kellys Slough NWR. The majority of wetland areas occur in the northern and central portions of base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of base. Development in or near these areas must include coordination with the ND State Water Commission and the USACE.

3.6 BIOLOGICAL RESOURCES

3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Because of the agrarian nature of Grand Forks County, cropland is the predominant element for wildlife habitat. Pastures, meadows, and other non-cultivated areas are overgrown with grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, bromegrass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as juneberry, dogwood, hawthorn, and snowberry also are found in the area. In wetland areas, predominant species include smartweed, wild millet, cord grass, bulrushes, sedges, and reeds. These habitats for upland wildlife and wetland wildlife attract a variety of species to the area and support many aquatic species.

Various researchers, most associated with the University of ND, have studied current native floras in the vicinity of the base. Prior to 1993 field investigations, ten natural communities occurring in Grand Forks County were identified in the ND Natural Heritage Inventory (1994). Of these, only one community, Lowland Woodland, is represented within the base boundaries. Dominant trees in this community are elm, cottonwood, and green ash. Dutch elm disease has killed many of the elms. European buckthorn (a highly invasive exotic species), chokecherry, and wood rose (*Rosa woodsii*) are common in the understory in this area. Wood nettle (*Laportea canadensis*), stinging nettle (*Urtica dioica*), beggars' ticks (*Bidens frondosa*), and waterleaf (*Hydrophyllum virginianum*) are typical forbes.

One hundred and forty two total taxa, representing less than a third of the known Grand Forks County plant taxa, were identified in the ND Natural Heritage Inventory. No rare plants species are known to exist on Grand Forks AFB.

3.6.2 Wildlife

Ground Forks County is primarily cropland although there are wildlife areas located within the county. Kellys Slough NWR is located a couple miles northeast of Grand Forks AFB. In addition to being a wetland, it is a stopover point for migratory birds. The Prairie Chicken Wildlife Management Area is located north of Mekinock and contains 1,160 acres of habitat for deer, sharp-tailed grouse, and game birds. Wildlife can also be found at the Turtle River State Park, The Bremer Nature Trail, and the Myra Arboretum.

There is minimal habitat for wildlife on Grand Forks AFB due to extensive development. White tail deer, eastern cottontail, and ring-neck pheasant can be found on base. The proposed project area only provides low-quality foraging habitat for small animals.

3.6.3 Threatened and Endangered Species

According to the 1994 ND Natural Heritage Inventory, “There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB.” The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle and peregrine falcon, but there are no critical or significant habitats for those species present. The inventory also indicated that red-breasted nuthatch and moose are two special concern species. They have been observed on base near Turtle River. The inventory also indicated that there is no habitat on or near Grand Forks AFB to sustain a moose population. Red-breasted nuthatches prefer woodland habitats dominated by conifers. These birds are transients and pose no particular concern. The ESA does require that Federal Agencies not jeopardize the existence of a threatened or endangered species nor destroy or adversely modify designated critical habitat for threatened or endangered species.

3.7 SOCIOECONOMIC RESOURCES

Grand Forks County is primarily an agricultural region and, as part of the Red River Valley, is one of the world’s most fertile. Cash crops include sugar beets, beans, corn, barley, and oats. The valley ranks first in the nation in the production of potatoes, spring wheat, sunflowers, and durum wheat. Grand Forks County’s population in 2000 was 66,109, a decrease of 6.5 percent from the 1990 population of 70,638 (ND State Data Center, No Date). Grand Forks County’s annual mean wage in Oct 2001 was \$26,715 (Job Service of ND, 2001). Grand Forks AFB is one of the largest employers in Grand Forks County. As of May 2003, Grand Forks AFB had 3,165 active duty military members and 338 civilian employees. The total annual economic impact for Grand Forks AFB is \$325,647,980.

3.8 CULTURAL RESOURCES

According to the Grand Forks AFB Cultural Resources Management Plan, there are no archeological sites that are potentially eligible for the National Register of Historic Places (NRHP). A total of six archeological sites and six archeological find spots have been identified on the base. None meet the criteria of eligibility of the NRHP established in 36 CFR 60.4. There is no evidence for Native American burial grounds, or other culturally sensitive areas. Paleosols (soil that developed on a past landscape) remain a management concern requiring Section 106 compliance. Reconnaissance-level archival and archeological surveys of Grand Forks AFB conducted by the University of ND in 1989 indicated that there are no facilities (50 years or older) that possess historical significance. The base is currently consulting with the ND Historical Society on the future use of eight Cold War Era facilities. These are buildings 313, 606, 703-707, and 714.

3.9 LAND USE

Land use in Grand Forks County consists primarily of cultivated crops with remaining land used for pasture and hay, urban development, recreation, and wildlife habitat. Principal crops are spring wheat, barley, sunflowers, potatoes, and sugar beets. Turtle River State Park, developed as a recreation area in Grand Forks County, is located about five miles west of the base. Several watershed protection dams are being developed for recreation activities including picnicking, swimming, and ball fields. Wildlife habitat is very limited in the county. Kellys Slough NWR (located about two miles east of the base) and the adjacent National Waterfowl Production Area are managed for wetland wildlife and migratory waterfowl, but they also include a significant acreage of open land wildlife habitat.

The main base encompasses 5,420 acres, of which the USAF owns 4,830 acres and another 590 acres are lands containing easements, permits, and licenses. Improved grounds, consisting of all covered area (under buildings and sidewalks), land surrounding base buildings, the 9-hole golf course, recreational ballfields, and the family housing area, encompass 1,120 acres. Semi-improved grounds, including the airfield, fence lines and ditch banks, skeet range, and riding stables account for 1,390 acres. The remaining 2,910 acres of the installation consist of unimproved grounds. These areas are comprised of woodlands, open space, and wetlands, including four lagoons (180.4 acres) used for the treatment of base wastewater. Agricultural outleased land (1,040 acres) is also classified as unimproved. Land use at the base is solely urban in nature, with residential development to the south and cropland, hayfields, and pastures to the north, west, and east.

3.10 TRANSPORTATION SYSTEMS

Seven thousand vehicles per day travel ND County Road B3 from Grand Forks AFB's east gate to the US Highway 2 Interchange (Clayton, 2001). Two thousand vehicles per day use the off-ramp from US Highway 2 onto ND County Road B3 (Dunn, 2001). US Highway 2, east of the base interchange, handles 10,800 vehicles per day. (Kingsley and Kuntz, 2001). A four lane arterial road has a capacity of 6,000 vehicles per hour and a two lane, 3,000, based on the average

capacity of 1,500 per hour per lane. Roadways adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows (USAF, 2001a).

Grand Forks AFB has good traffic flow even during peak hours (6-8 am and 4-6 pm). There are two gates: the main gate located off of County Road B3, about one mile north of U.S. Highway 2, and the Secondary Gate located off of U.S. Highway 2, about 3/4 mile west of County Road B3. The main gate is connected to Steen Boulevard (Blvd), which is the main east-west road, and the south gate is connected to Eielson Street (St), which is the main north-south road.

3.11 AIRSPACE/AIRFIELD OPERATIONS

3.11.1 AIRCRAFT SAFETY

Bird Aircraft Strike Hazard (BASH) is a major safety concern for military aircraft. Collision with birds may result in aircraft damage and aircrew injury, which may result in high repair costs or loss of the aircraft. A BASH hazard exists at Grand Forks AFB and its vicinity, due to resident and migratory birds. Daily and seasonal bird movements create various hazardous conditions. Although BASH problems are minimal, Kellys Slough NWR is a major stopover for migratory birds. Canadian Geese and other large waterfowl have been seen in the area (USAF, 2001b).

3.11.2 AIRSPACE COMPATIBILITY

The primary objective of airspace management is to ensure the best possible use of available airspace to meet user needs and to segregate requirements that are incompatible with existing airspace or land uses. The Federal Aviation Administration has overall responsibility for managing the nation's airspace and constantly reviews civil and military airspace needs to ensure all interests are compatibly served to the greatest extent possible. Airspace is regulated and managed through use of flight rules, designated aeronautical maps, and air traffic control procedures and separation criteria.

3.12 SAFETY AND OCCUPATIONAL HEALTH

Safety and occupational health issues include one-time and long-term exposure. Examples include asbestos/radiation/chemical exposure, explosives safety quantity-distance, and bird/wildlife aircraft hazard. Safety issues include injuries or deaths resulting from a one-time accident. Aircraft Safety includes information on birds/wildlife aircraft hazards and the BASH program. Health issues include long-term exposure to chemicals such as asbestos and lead-based paint. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA designates asbestos as HAP. OSHA provides worker protection for employees who work around or asbestos containing material (ACM). Regulated ACM (RACM) includes thermal system

insulation (TSI), any surfacing material, and any friable asbestos material. Non-regulated Category I non-friable ACM includes floor tile and joint compound.

Lead exposure can result from paint chips or dust or inhalation of lead vapors from torch-cutting operations. This exposure can affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. OSHA considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

3.13 ENVIRONMENTAL MANAGEMENT

3.13.1 INSTALLATION RESTORATION PROGRAM

The Installation Restoration Program (IRP) is the AF's environmental restoration program based on the CERCLA. CERCLA provides for Federal agencies with the authority to inventory, investigate, and clean up uncontrolled or abandoned hazardous waste sites. There are seven IRP sites at Grand Forks AFB. These sites are identified as potentially impacted by past hazardous material or hazardous waste activities. They are the Fire Training Area/Old Sanitary Landfill Area, FT-02; New Sanitary Landfill Area, LF-03; Strategic Air Ground Equipment (SAGE) Building 306, ST-04; Explosive Ordnance Detonation Area, OT-05; Refueling Ramps and Pads, Base Tanks Area, ST-06; POL Off-Loading Area, ST-07; and Refueling Ramps and Pads, ST-08 (USAF, 1997b). Two sites are considered closed, OT-05 and ST-06. ST-08 has had a remedial investigation/feasibility study (RI/FS) completed and the rest are in long-term monitoring. Grand Forks AFB is not on the National Priorities List (NPL)

3.13.2 GEOLOGICAL RESOURCES

3.13.2.1 Physiography and Topography

The topography of Grand Forks County ranges from broad, flat plains to gently rolling hills that were produced mainly by glacial activity. Local relief rarely exceeds 100 ft in one mile, and, in parts of the lake basin, less than five ft in one mile.

Grand Forks AFB is located within the Central Lowlands physiographic province. The topography of Grand Forks County, and the entire Red River Valley, is largely a result of the former existence of Glacial Lake Agassiz, which existed in this area during the melting of the last glacier, about 12,000 years ago (Stoner et al., 1993). The eastern four-fifths of Grand Forks County, including the base, lies in the Agassiz Lake Plain District, which extends westward to the Pembina escarpment in the western portion of the county. The escarpment separates the Agassiz Lake Plain District from the Drift Plain District to the west. Glacial Lake Agassiz occupied the valley in a series of recessive lake stages, most of which were sufficient duration to produce shoreline features inland from the edge of the lake. Prominent physiographic features of the Agassiz Lake Plain District are remnant lake plains, beaches, inter-beach areas, and delta plains. Strandline deposits, associated with fluctuating lake levels, are also present and are indicated by narrow ridges of sand and gravel that typically trend northwest-southwest in Grand Forks County.

Grand Forks AFB lies on a large lake plain in the eastern portion of Grand Forks County. The lake plain is characterized by somewhat poorly drained flats and swells, separated by poorly drained shallow swells and sloughs (Doolittle et al., 1981). The plain is generally level, with local relief being less than one foot. Land at the base is relatively flat, with elevations ranging from 880 to 920 ft mean sea level (MSL) and averaging about 890 ft MSL. The land slopes to the north at less than 12 ft per mile

3.13.2.2 Soil Type Condition

Soils consist of the Gilby loam series that are characterized by deep, somewhat poorly drained, moderately to slowly permeable soils in areas between beach ridges. The loam can be found from 0 to 12 inches. From 12 to 26 inches, the soil is a mixture of loam, silt loam, and very fine sandy loam. From 26 to 60 inches, the soil is loam and clay loam.

3.13.3 PESTICIDE MANAGEMENT

Pesticides are handled at various facilities including Environmental Controls, Golf Course Maintenance, and Grounds Maintenance. Other organizations assist in the management of pesticides and monitoring or personnel working with pesticides. Primary uses are for weed and mosquito control. Herbicides, such as Round-up, are used to maintain areas adjacent to roadways. Military Public Health and Bioenvironmental Engineering provide information on the safe handling, storage, and use of pesticides. Military Public Health maintains records on all pesticide applicators. The Fire Department provides emergency response in the event of a spill, fire, or similar type incident.

3.14 ENVIRONMENTAL JUSTICE

Environmental justice addresses the minority and low-income characteristics of the area, in this case Grand Forks County. The county is more than 93 percent Caucasian, 2.3 percent Native American, 1.4 percent African-American, 1 percent Asian/Pacific Islander, less than 1 percent Other, and 1.6 percent "Two or more races". In comparison, the US is 97.6 percent Caucasian, 12.3 African-American, 0.9 percent Native American or Native Alaskan, 3.6 percent Asian, 0.1 Native Hawaiian or Pacific Islander, 5.5 percent Other, and 2.4 percent "Two or more races". Approximately 12.5 percent of the county's population is below the poverty level in comparison to 13.3 percent the state (US Bureau of the Census, 2002). There are few residences and no concentrations of low-income or minority populations around Grand Forks AFB.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

The effects of the proposed action and the alternatives on the affected environment are discussed in this section. The proposed action would provide an on-base snowmobile trail on Grand Forks AFB.

4.2 AIR QUALITY

4.2.1 Alternative 1 (Proposed Action)

Snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. Many snowmobiles have two-stroke engines that are documented as highly inefficient and produce relatively high emissions of carbon monoxide and unburned hydrocarbons. Typically these engines have no mechanism on them to control the amount of toxic pollutants emitted by the vehicle. Allowing snowmobile use at GFAFB would negatively impact air quality. However, North Dakota air quality is considered good and the area is in attainment for all criteria pollutants. The EPA is mandating that manufacturers produce new models of snowmobiles that have improved engine and fuel systems. Using this method over time should reduce air emissions through mobile sources, like snowmobiles. Snowmobile use is common in the adjacent areas to GFAFB, and use on base would not significantly impact current mandatory air permit requirements.

4.2.2 Alternative 2

The elimination of the snowmobile trail would decrease air emissions on base. The snowmobiles would still be operated off base and emissions would still remain in the vicinity of the base.

4.2.3 Alternative 3 (No Action)

The no action alternative would not impact air quality.

4.3 NOISE

4.3.1 Alternative 1 (Proposed Action)

The operation of snowmobiles would increase the amount of noise pollution in the vicinity of the trails. The noise increase would short-term and would only occur when the snowmobiles were driven on and off base during regular hours approved by the Mission Support Group Commander.

4.3.2 Alternative 2

Elimination of the snowmobile trail would eliminate noise generated by snowmobiles on base.

4.3.3 Alternative 3 (No Action)

Impacts would be similar to those generated under the proposed action.

4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

4.4.1 Alternative 1 (Proposed Action)

The proposed action would not impact hazardous or solid waste generation.

4.4.2 Alternative 2

Alternative 2 would not impact hazardous or solid waste generation.

4.4.3 Alternative 3 (No Action)

The no action alternative would not impact hazardous or solid waste generation.

4.5 WATER RESOURCES

4.5.1 Alternative 1 (Proposed Action)

Ground Water: Provided best management practices (BMPs) are followed, there would be minimal impacts on ground water. The proposed location is considered developed so the minimal soil compaction on any unpaved portions that is likely to occur should not interfere with infiltration during storm events.

Surface Water: Surface water quality could be degraded, both in the short-term, and over the long-term due to reduced storm water quality caused by a potential increase of exposed soil. The short-term effects come from possible erosion contributing to turbidity of runoff. Any areas of disturbed vegetation must be repaired to control surface water runoff and minimize erosion. Provided minimum snow pack depths are maintained and riders stay on established trails, negative impacts would be minimal.

Water Quality: The proposed action would have minimal impact to water quality.

Waste Water: The proposed action would have no impact on wastewater.

Wetlands: Provided riders stay on maintained trails, there should be no impact on wetlands. No wetlands are located near or on the trail. However, no riders should deviate from the signed trail as snowmobiling in wetlands can affect the distribution and abundance of wetland vegetation. Compacting of snow by snowmobiles in any habitat lowers temperatures under the snow and reduces the over-winter survival of plants and soil microbes. No dumping, filling, dredging, or changing of the wetland hydrologic structure is permitted without a permit. According to Air Force Instruction (AFI) 32-7064, "AF lands shall be managed for the goal of no-net-loss of

wetlands. In compliance with Executive Order 11990, Protection of Wetlands, the AF would preserve the natural values of wetlands while carrying out its mission.”

4.5.2 Alternative 2

Elimination of the trail decrease potential impacts to ground water, surface water, water quality and wetlands.

4.5.3 Alternative 3 (No Action)

Ground Water: Provided BMPs are followed, there would be minimal impacts on ground water. The areas considered are already considered developed so the minimal soil compaction on any unpaved portions that is likely to occur should not interfere with infiltration during storm events.

Surface Water: Surface water quality could be degraded, both in the short-term, and over the long-term due to reduced storm water quality caused by a potential increase of exposed soil. The short-term effects come from possible erosion contributing to turbidity of runoff. Any areas of disturbed vegetation must be repaired to control surface water runoff and minimize erosion. Provided minimum snow pack depths are maintained and riders stay on established trails, negative impacts would be minimal.

Water Quality: The proposed action would have minimal impact to water quality.

Waste Water: The proposed action would have no impact on wastewater.

Wetlands: Provided riders stay on maintained trails, there should be no impact on wetlands.

4.6 BIOLOGICAL RESOURCES

4.6.1 Alternative 1 (Proposed Action)

Vegetation: The proposed site is characterized by both improved and semi-improved vegetation. One hundred and forty two taxa, representing less than a third of the known Grand Forks County plant taxa, were identified in the ND Natural Heritage Inventory. No rare plant species are known to exist at GFAFB. Snowmobile impacts to vegetation can be severe. Snowmobiles crush and trample plants, destroy young saplings, and reduce vegetative cover. Snowmobiles compact the snow reducing the water holding capacity increasing the snow density and changing its structure. Snowmobile trails melt more slowly and maintain a partial gas seal over the soil during spring melt. Vegetation becomes starved of air and sunlight. Use of these vehicles compacts the soil, and makes it difficult for vegetation to reestablish. AFI 32-7064, chapter 10.6.1, states "Restrict use of off-road vehicles, including dirt bikes and all terrain vehicles, to areas that can sustain their use without damage to natural or cultural resources. Make sure all off-road vehicles are licensed and insured". Also, AFI 32-7064, chapter 10.6.2, states "Close areas damaged from uncontrolled off-road vehicle use from further use. Undertake rehabilitation projects to restore the damage." Any damage incurred from snowmobile use should be repaired

immediately.

Wildlife: Snowmobile riding activities would have adverse impacts to wildlife in the area such as direct mortality, noise, and habitat disturbance. These areas provide foraging habitat for many mammals such as mice, rabbits, skunks, badgers, and deer. The areas are both improved and semi-improved, therefore some maintenance activities would occur in the proposed trail areas. Snowmobile riders need to slow down when encountering any wildlife to avoid collisions and reduce potential mortality rates. Noise interferes with an animal's ability to perform critical survival functions such as using their hearing for predation and finding potential/existing mates. Small mammals, particularly those who use the subnivean layer (the space between snow and soil) for winter habitat, are at a potentially high risk for mortality from snowmobile use. Snowmobiles compact the snow over which they drive, which destroys air spaces between the snow and soil, reduces snow depth, increases the density of the snow, and decreases the ability of the snow to insulate the small subnivean air space from the cold winter air. Animals use this space between snow and soil for habitat because unpacked snow insulates the ground from the cold air.

Threatened or Endangered Species: According to the 1994 ND Natural Heritage Inventory (1994), "There are no known federally threatened or endangered species populations on or adjacent to Grand Forks AFB." There have been bald eagle reports (November 2003) on the sewage lagoons to the east of the base proper. However there is no appropriate habitat for the eagles at the proposed snowmobile trail sites, and there should be no adverse consequences to them.

4.6.2 Alternative 2

Elimination of the trail system would eliminate the potential impacts to biological resources.

4.6.3 Alternative 3 (No Action)

Impacts would be similar to those generated under the proposed action.

4.7 SOCIOECONOMIC RESOURCES

4.7.1 Alternative 1 (Proposed Action)

The proposed action would not impact socioeconomic resources.

4.7.2 Alternative 2

Alternative 2 would not impact socioeconomic resources.

4.7.3 Alternative 3 (No Action)

The no action alternative would not impact socioeconomic resources.

4.8 CULTURAL RESOURCES

4.8.1 Alternative 1 (Proposed Action)

The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

4.8.2 Alternative 2

Alternative 2 would not impact cultural resources.

4.8.3 Alternative 3 (No Action)

Impacts would be similar to those generated under the proposed action.

4.9 LAND USE

4.9.1 Alternative 1 (Proposed Action)

The Grand Forks AFB's Facility Board has approved the base's snowmobile trail.

4.9.2 Alternative 2

Alternative 2 would not impact land use.

4.9.3 Alternative 3 (No Action)

The Grand Forks AFB's Facility Board has approved the base's snowmobile trail.

4.10 TRANSPORTATION SYSTEMS

4.10.1 Alternative 1 (Proposed Action)

The proposed action would have minimal adverse impact to transportation systems on base due to snowmobiles crossing a limited number of intersections.

4.10.2 Alternative 2

Elimination of the snowmobile would a minimal beneficial impact on the base's transportation system.

4.10.3 Alternative 3 (No Action)

Impacts would be similar to those generated in the proposed action.

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Alternative 1 (Proposed Action)

The proposed action would not impact aircraft safety or airspace compatibility.

4.11.2 Alternative 2

Alternative 2 would not impact aircraft safety or airspace compatibility.

4.11.3 Alternative 3 (No Action)

The no action alternative would not impact aircraft safety or airspace compatibility.

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Alternative 1 (Proposed Action)

According to the base's safety office, the main gate access must be eliminated because operators circumvented the berm/wall on the north side of Steen would be required to enter the roadway and go over the Bollards to gain access to the exterior of the base. On the south side of Steen the berm/wall extends all the way to the perimeter fence. Also, the east and north trails in the old Dakota Military Family Housing (MFH) area must be eliminated because they are too close to hazards remaining due to demolition such as the large pile of cement/rebar debris. Additionally, the Eielson route coming from the North Boundary would have to remain on the east side of the street until they reach an area south of the 600 series hangars fence (between 7th and 6th) and then cross the roadway to the west side of the street to proceed south. They would also be required to enter the roadway between 1st and Alert because of fuel transfer pipes. All culverts and guy wires along the route would have to be flagged or otherwise identified..

4.12.2 Alternative 2

Elimination of the snowmobile trail would eliminate safety's concerns.

4.12.3 Alternative 3 (No Action)

Impacts would be similar to those generated in the proposed action.

4.13 ENVIRONMENTAL MANAGEMENT

4.13.1.1 Alternative 1 (Proposed Action)

IRP: The proposed action would not impact IRP Sites.

Geology: The proposed action would not impact geology.

Pesticides: No pesticides would be used as part of this project.

4.13.1.2 Alternative 2

Alternative 2 would not impact IRP Sites or geological resources. No pesticides would be used as part of this project.

4.13.1.3 Alternative 3 (No Action)

The no action alternative would not impact IRP Sites or geological resources. No pesticides would be used as part of this project.

4.14 ENVIRONMENTAL JUSTICE

4.14.1 Alternative 1 (Proposed Action)

EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action, and, thus, there would be no disproportionately high or adverse impact on such populations.

4.14.2 Alternative 2

Alternative 2 would not impact environmental justice.

4.14.3 Alternative 3 (No Action)

Impacts would be similar to those generated in the proposed action.

4.15 INDIRECT AND CUMULATIVE IMPACTS

The short-term increases in air emissions and noise during construction and the impacts predicted for other resource areas, would not be significant when considered cumulatively with other ongoing and planned activities at Grand Forks AFB and nearby off-base areas. The cumulative impact of the Proposed Action or Alternative with other ongoing construction in the area would produce and increase in solid waste generation; however, the increase would be limited to the

timeframe of each construction project. The area landfill used for construction and demolition debris does not have capacity concerns and could readily handle the solid waste generated by the various projects.

4.16 UNAVOIDABLE ADVERSE IMPACTS

The use of construction-related vehicles and their short-term impacts on noise, air quality, and traffic is unavoidable.

4.17 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed action and alternative would involve the use of previously developed areas. No croplands, pastureland, wooded areas, or wetlands would be modified or affected as a result of implementing the Proposed Action or Alternative and, consequently, productivity of the area would not be degraded.

4.18 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Under the proposed action, fuels, manpower, economic resources, fill and other construction materials related to an on-base snowmobile trail would be irreversibly lost.

5.0 LIST OF PREPARERS

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Bismarck, ND 58505-0200

Mr. Merlen E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck ND 58505-0200

Mr. Dean Hildebrand
Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

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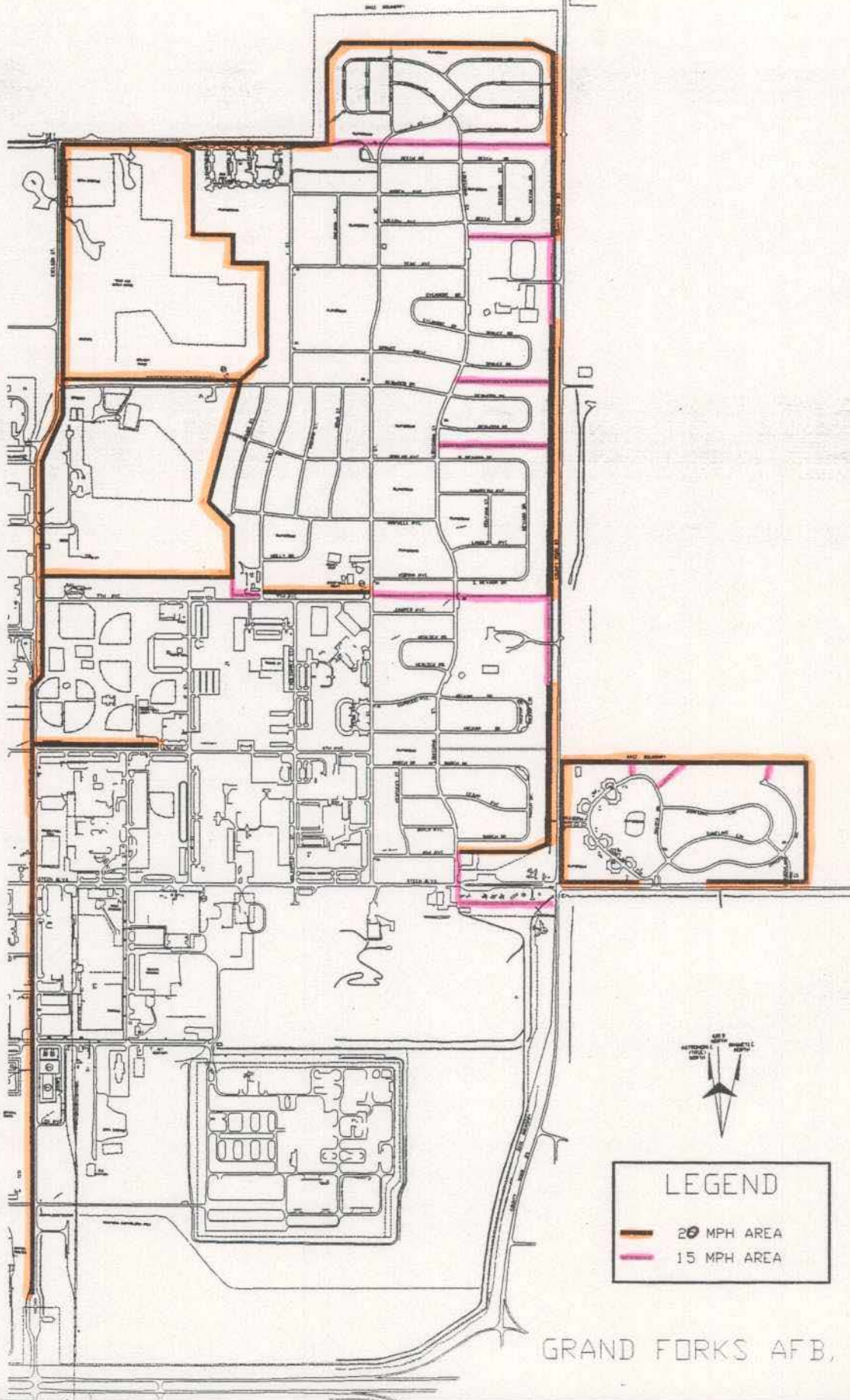
**APPENDIX A
LOCATION MAP**

Grand Forks AFB, ND



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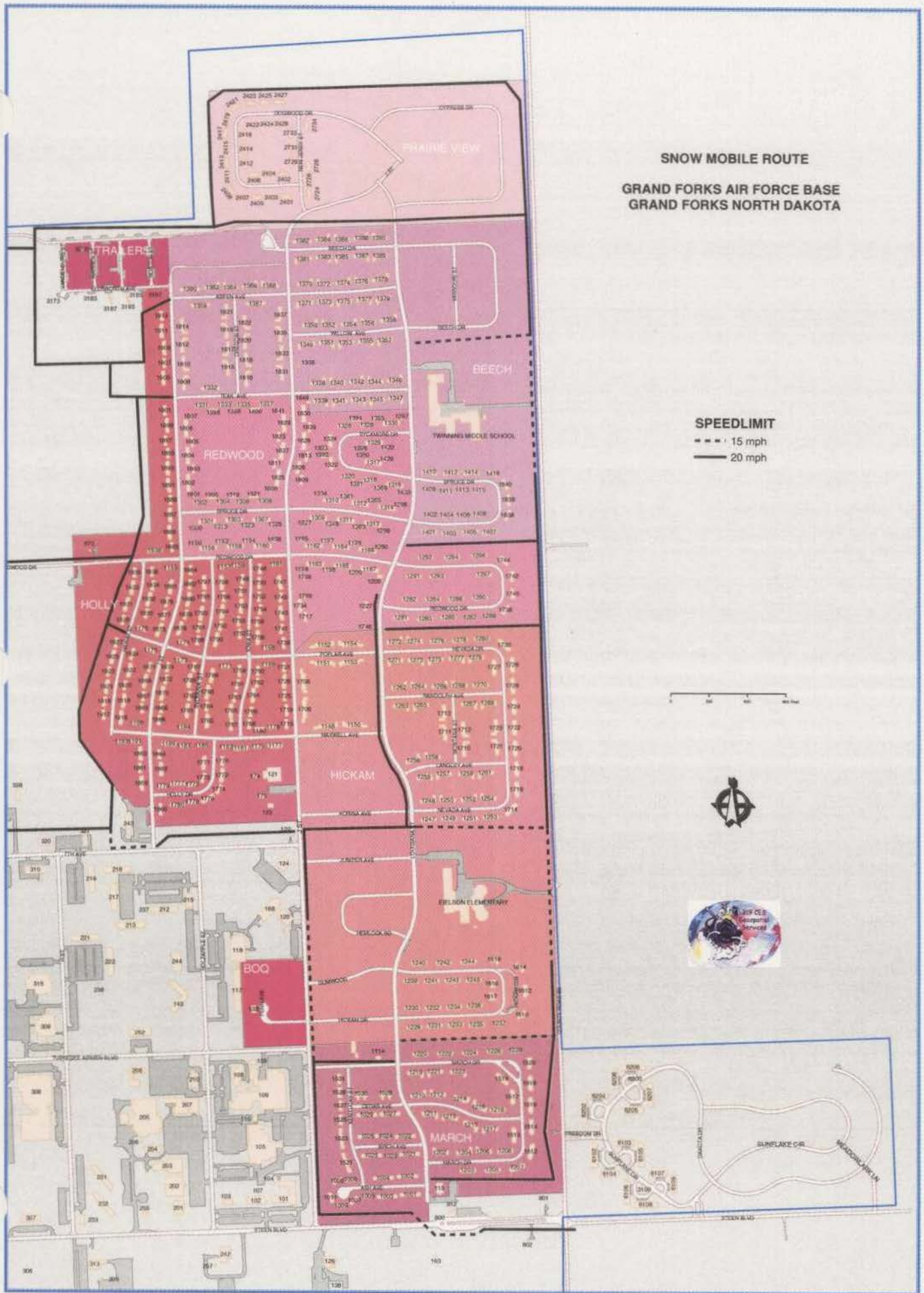
State Boundary



GRAND FORKS AFB, ND

SNOW MOBILE ROUTE
GRAND FORKS AIR FORCE BASE
GRAND FORKS NORTH DAKOTA

SPEEDLIMIT
 - - - 15 mph
 ——— 20 mph



APPENDIX B
CULTURAL RESOURCE PROBABILITY MAP

Figure 3.5
Survey Areas and
Probabilities

Grand Forks Air Force Base
Cultural Resources Management Plan

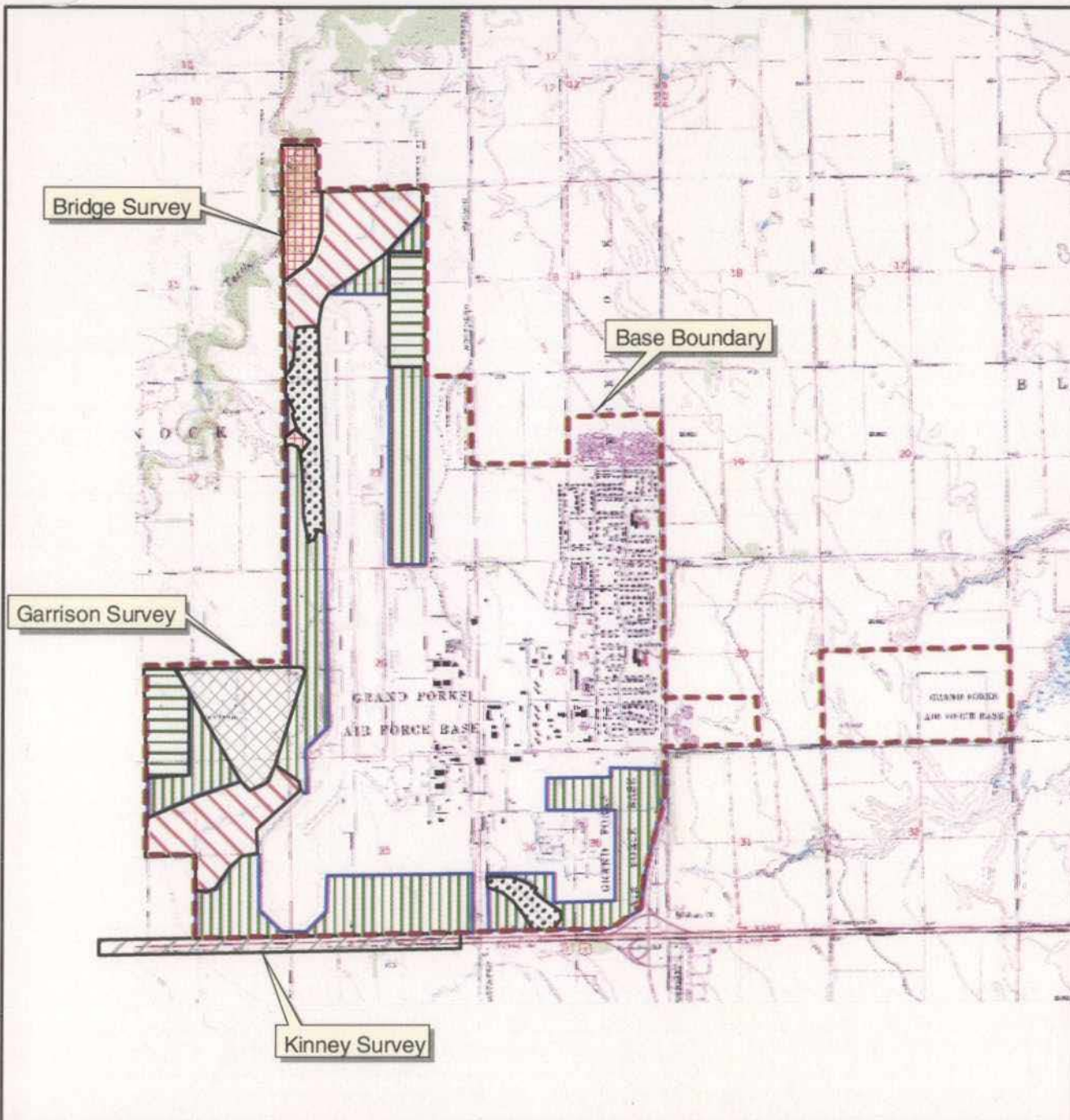
Legend

- Historic Bridge Inventory Survey
- Base Boundary
- High Probability
- Medium Probability (near water)
- Kinney Survey
- Medium Probability (beach ridge)
- Peace Keeper Rail Garrison Survey
- Low Probability (distance from water)
- Low Probability (10% sample)
- Previously Disturbed

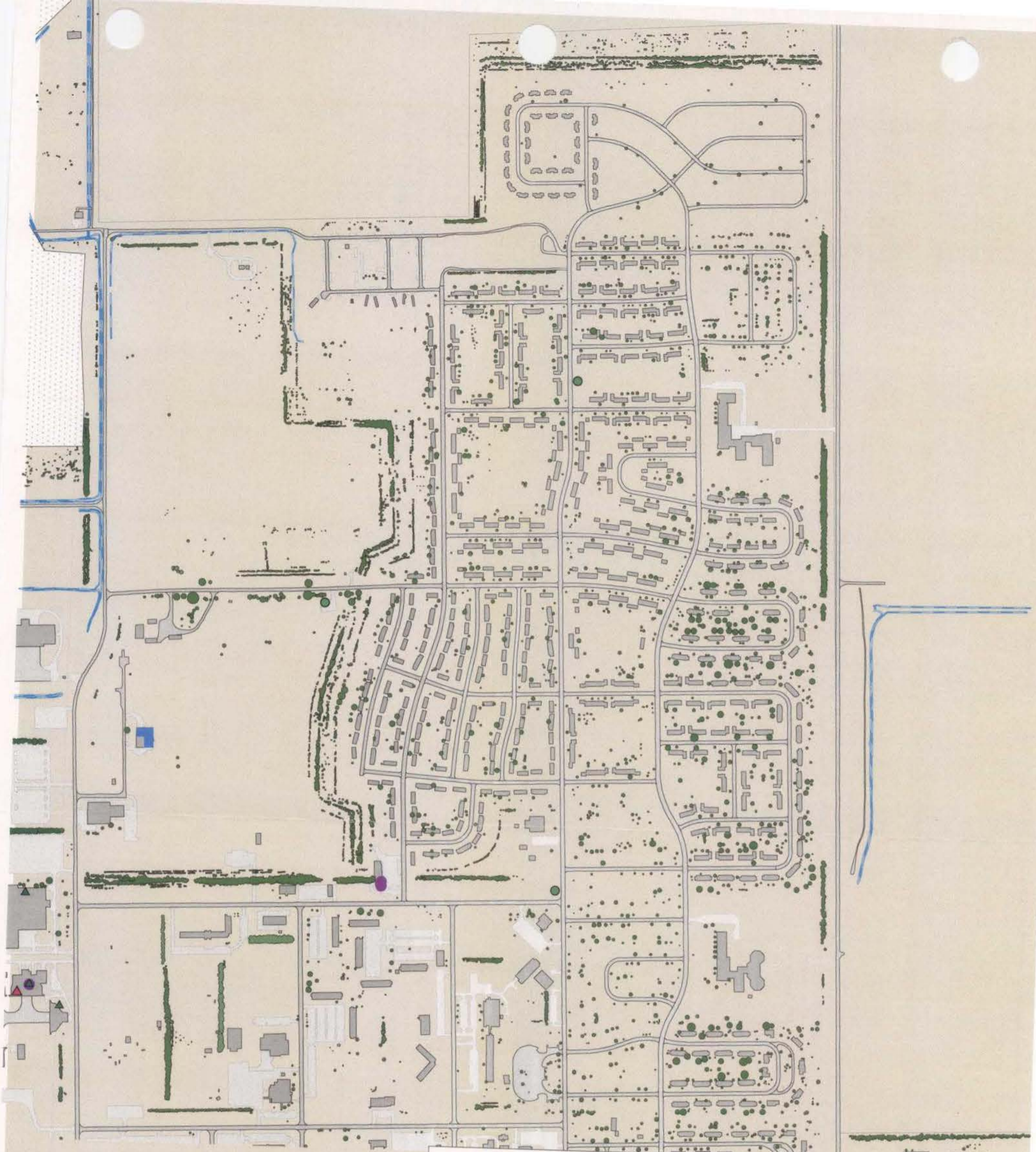
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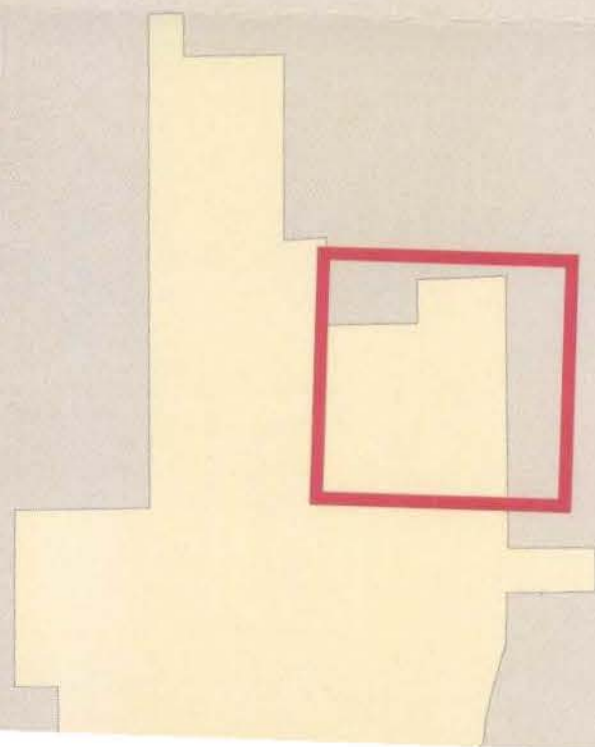


APPENDIX C
ENVIRONMENTAL SITE MAP



Grand Forks AFB Environmental Sites (NE)

- Above Ground Storage Tanks (Fuel)
- ▲ Abandoned Fuel Lines
- ▲ Building 622 - Acid Dip Room
- Helicopter Wash Area
- ▲ Oil/Water Separator
- ▲ Satellite Accumulation Areas (Haz Waste)
- ▲ Scrap Storage Area
- S.H.P.O. (Buildings under consideration)
- ▲ Underground Waste Storage
- Underground Storage Tanks (Fuel)
- Ditches/Streams
- ▨ IRP Sites
- ▨ Landfill Caps
- Trees
- Hydrography-flood zone area
- ▨ floodplain zone centroid



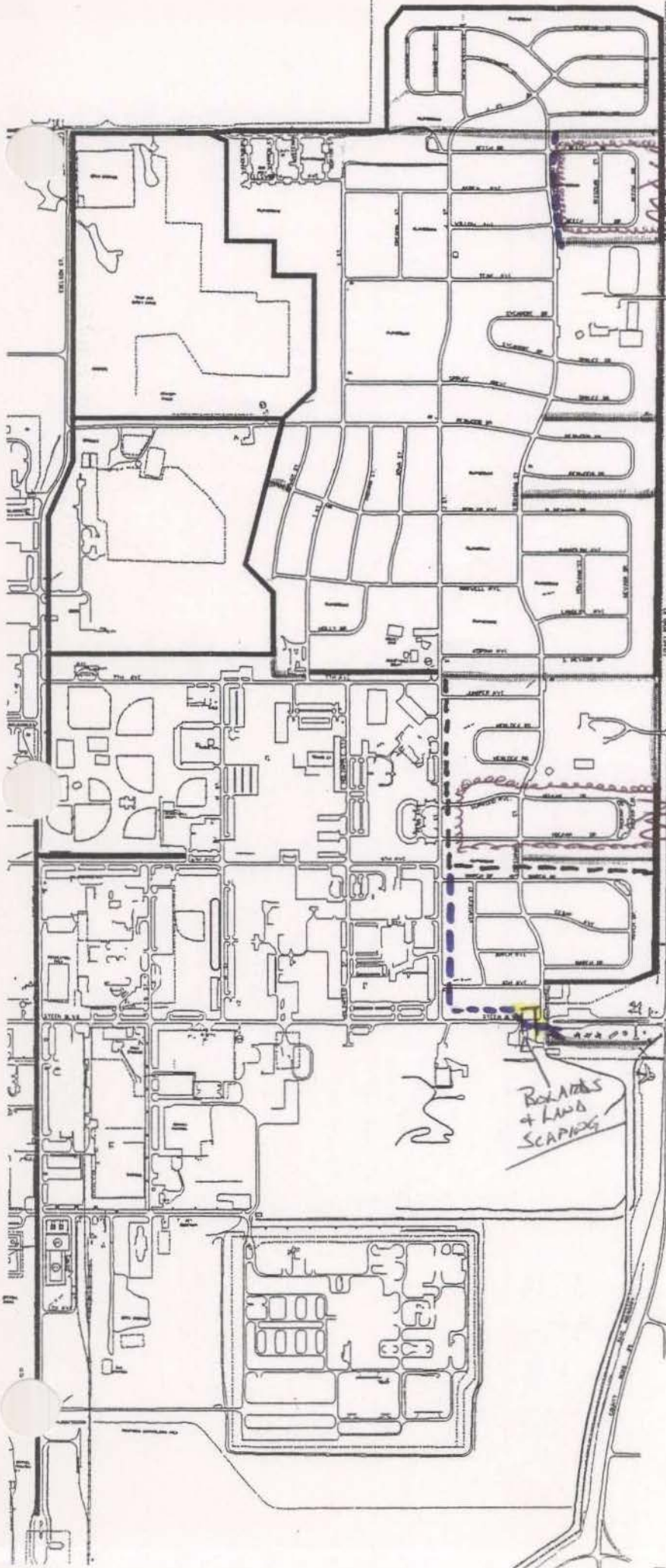


Grand Forks AFB Environmental Sites (SE)

- Above Ground Storage Tanks (Fuel)
 - ▲ Abandoned Fuel Lines
 - ▲ Building 622 - Acid Dip Room
 - Helicopter Wash Area
 - ▲ Oil/Water Separator
 - ▲ Satellite Accumulation Areas (Haz Waste)
 - ▲ Scrap Storage Area
 - S.H.P.O. (Buildings under consideration)
 - ▲ Underground Waste Storage
 - Underground Storage Tanks (Fuel)
 - Ditches/Streams
 - IRP Sites
 - Landfill Caps
 - Trees
- Hydrography-flood zone area

■ floodplain zone centroid



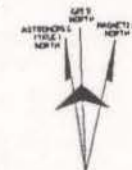
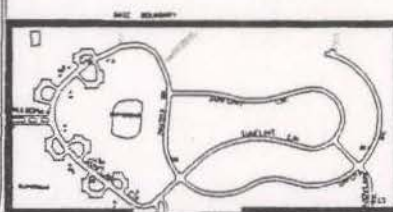


Housing
CONSTRUCTION

7-5677
MS &
STERNMAN

Housing
CONSTRUCTION

Boxing
& LAND
SCAPING



LEGEND	
	25 MPH AREA
	15 MPH AREA


APPENDIX D
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS: 2004-070

INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).

SECTION I - PROPONENT INFORMATION

1. TO (Environmental Planning Function) 319 CES/CEVA	2. FROM (Proponent organization and functional address symbol) 319 CES/CD	2a. TELEPHONE NO. 7-4761
3. TITLE OF PROPOSED ACTION On-Base Snowmobile Trail		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) See Attached.		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) See Attached.		
6. PROPONENT APPROVAL (Name and Grade) MARY C. GILTNER, GM-13, DAFC Deputy Base Civil Engineer	6a. SIGNATURE 	6b. DATE 26 Mar 04

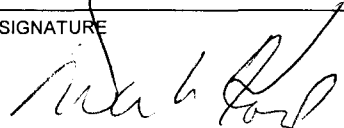
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)

	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. WATER RESOURCES (Quality, quantity, source, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. OTHER (Potential impacts not addressed above.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR
 PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
 This action is not "regionally significant" and does not require a conformity determination in accordance with 40 CFR 93.153(1). The total emission of criteria pollutants from the proposed action are below the de minimus thresholds and less than 10 percent of the Air Quality Region's planning inventory.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) WAYNE. A. KOOP, R.E.M., GM-13 Environmental Management Flight Chief	19a. SIGNATURE 	19b. DATE 15 Jan 04
--	--	------------------------

4.0 Purpose and Need for Action

4.1 Purpose: To provide a means for base residents to ride their snowmobiles on and off base by the most direct and safe means.

4.2 Need: Current Military Family Housing (MFH) construction projects have blocked off portions of the base's trail system inside the main perimeter fence along County Road B3. This trail was utilized by base residents to ride their snowmobiles on and off base. A new route is now required to allow the base snowmobile club, Freedom Riders, to operate on base.

5.0 Description of Proposed Action and Alternatives

5.1 Under the proposed action, Grand Forks AFB would reroute the base's snowmobile trail to allow base residents to ride their snowmobiles on and off base. Snowmobiles would only be driven on the designated trail. Trails would only be used to gain access to off base trails and then to return to the rider's residence. The club requests a waiver of liability insurance because each member is required to have liability insurance on their snowmobile as per North Dakota law. The Freedom Riders operate under a "Permission to Organize" dated 5 August 98 and signed by the Mission Support Group commander. The club established the trails on base that same year. The trails open on 1 December or when there is a minimum of 4 inches of snow, whichever is later. The Mission Support Group Commander is briefed annually on the club and makes the decision to open the trails. Signs are placed along the trail annually but no other maintenance is conducted. Occasionally, a limb may be removed but since all trails are established as multi-use trails, there are no other maintenance issues. Stop signs are placed at road crossings and occasional orange triangular trail blazers arrows are placed where necessary. The trail is approximately eight to twelve feet wide and nine to ten miles long. The base requires annual safety and trail usage training by all members of the Freedom Riders using the trail. Safety training certificates are issued immediately after receiving the training.

5.2 Alternative Action 1: Grand Forks AFB would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders would abide by the same rules and regulations stated under the proposed action.

5.3 No Action Alternative: Under the no action alternative, Grand Forks AFB would not allow snowmobile trails on Grand Forks AFB. Residents would have to transport the snowmobiles via trailers to off-base locations and then transport them back by the same means.

5.4 Decision: Grand Forks AFB must decide whether or not to allow snowmobile trails on base.

5.5 Permits: None.

AF Form 813 Continuation Page, Snowmobile Route

7. AICUZ/LAND USE: The operation of snowmobiles would increase the amount of noise pollution in the vicinity of the trails.

8. AIR QUALITY: Snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. North Dakota air quality is considered good and the area is in attainment for all criteria pollutants.

9. WATER RESOURCES: Surface water quality could degrade due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Provided BMPs are followed, there would be minimal impacts to ground water, surface water, water quality, and wetlands.

10. SAFETY AND OCCUPATIONAL HEALTH: According the base's safety office, portions of the trail system should be eliminated to minimize safety concerns. All culverts and guy wires along the route would have to be flagged or otherwise identified.

11. HAZARDOUS MATERIALS/WASTE: None.

12. BIOLOGICAL RESOURCES – Operation of snowmobiles would negatively impact vegetation and destroyed vegetation would need to be repaired immediately. Noise generation would impact wildlife and care would need to be taken when wildlife are in the vicinity of the trail.

13. CULTURAL RESOURCES: No effect, no known cultural resources in the vicinity of the project.

14. GEOLOGY AND SOILS: No effect; project area was previously disturbed.

15. SOCIOECONOMIC: None.

16. OTHER: No effect.

ROUTING AND TRANSMITTAL SLIP

Date
22 Mar 04

Name, office symbol, room number,
Building, Agency/Post)

@EV

Initials
WJD

Date
3/23/04

- 1. ~~319 ARW/JA~~ 319 CES/CD
- 2. 319 ARW/JA
- 3.
- 4.
- 5.

mlc
MWH

3/30/04

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	1 Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
1 Coordination	Justify	

REMARKS

view the enclosed FONSI and EA for the proposed "On-Base Snowmobile Trail". The Affidavit of Publication from the Grand Forks Herald is enclosed regarding the public notice requirements of EIAP process.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)
Kristen Rundquist, 319 CES/CEVC, Air Quality and Natural Resource Program Manager

Room No. - Bldg. 410

Phone No. 747-4774

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 319TH AIR REFUELING WING (AMC)
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA



30 March 2004

MEMORANDUM FOR 319 CES/CEVA

FROM: 319 ARW/JA

SUBJECT: On-Base Snowmobile Trail EA/FONSI

1. I reviewed the Environmental Assessment (EA) and Findings of No Significant Impact (FONSI) for the above-referenced project. The proposed EA and FONSI are both legally sufficient and comply with the requirements of 32 CFR Part 989. I recommend that Mr. Koop approve the FONSI.
2. The EA contains the need for the proposal, alternatives to the proposal, environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted for EA preparation. The EA and FONSI were made available for public comment in the *Grand Forks Herald* (15 and 17 January 2004). From a legal perspective the project will not have a significant environmental impact. Therefore, the EA is legally sufficient and a FONSI is appropriate.
3. If you have any questions about these comments, please contact me at 7-3606.

Handwritten signature of Mark W. Hanson in cursive.

MARK W. HANSON, GS-12, DAF
Chief, General Law

I concur.

Handwritten signature of Barr D. Younker, Jr. in cursive.

BARR D. YOUNKER, JR., Lt Col, USAF
Staff Judge Advocate

AFFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA }
COUNTY OF GRAND FORKS } SS.

Boyo of said State and County being first duly sworn, on oath says:

That { she } is { } a representative of the GRAND FORKS HERALD, INC.,

publisher of the Grand Forks Herald, Morning Edition, a daily newspaper of general circulation, printed and published in the City of Grand Forks, in said County and State, and has been during the time hereinafter mentioned, and that the advertisement of

on Base snowmobile trail

a printed copy of which is hereto annexed, was printed and published in every copy of the following issues of said newspaper, for a period of 2 time (s) to wit:

<u>1-15</u>	Yr. <u>04</u>	_____	Yr. _____
<u>1-17</u>	Yr. <u>04</u>	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is \$15.18;

That said newspaper was, at the time of the aforesaid publication, the duly elected and qualified Official Newspaper within said County, and qualified in accordance with the law of the State of North Dakota to do legal printing in said County and State.

Subscribed and sworn to before me this 22 day of Jan A.D. 04

Elaine Jansen
Notary Public, Grand Forks, ND

AIR FORCE BASE PUBLIC NOTIFICATION
Grand Forks Air Force Base has proposed an on-base snowmobile trail.
An environmental assessment has been conducted and a finding of no significant impact has been determined for the action.
Anyone who would like to view the support documents to this action should contact the 319th Air Refueling Wing Public Affairs Office within the next 30 days at 747-5017.
(January 15, 17, 2004)

Publication Fee \$ 15.18



**STATE
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OF NORTH DAKOTA**

John Hoeven
Governor of North Dakota

**North Dakota
State Historical Board**

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Bismarck

Gereld Gerntholz
Valley City

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Sara Otte Coleman
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Tourism Division

Kathi Gilmore
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
Director
Parks and Recreation
Department

David A. Sprynczynatyk
Director
Department of Transportation

John E. Von Rueden
Bismarck

Merlan E. Paaverud, Jr.
Director

Accredited by the
American Association
of Museums

January 22, 2004

Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

ND SHPO Ref.: 97-0527, Draft EA, On-Base Snowmobile Trail, Grand Forks AFB, ND.

Dear Ms. Durako:

We have reviewed: *Environmental Assessment: On-Base Snowmobile Trail At Grand Forks AFB, North Dakota* (Draft Version, 7 Jan 04), and request the following information for consultation:

- 1) Please provide a location map showing the Area of Potential Effect for the project as per Appendix A of the draft EA.
- 2) Will the trail run near or through the northeast portion of the Air Base where there is "High Probability" and/or "Medium Probability" for buried cultural resources (See 1997 Grand Forks Air Force Base CRMP) and, if so, will any proposed work extend more than 60 cm below the existing ground surface?
- 3) Please provide a cultural resource probability map as per Appendix B of the draft EA.

Thank you for the opportunity to review this project. Please include the ND SHPO Reference number listed above in any further correspondence for this specific project. If you have any questions please contact Duane Kliner at (701) 328-3576.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer
(North Dakota)



**STATE
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SOCIETY
OF NORTH DAKOTA**

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Governor of North Dakota

North Dakota
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Gerold Gerntholz
Valley City

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Jamestown

Sara Otte Coleman
Director
Tourism Division

Kathi Gilmore
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
Director
Parks and Recreation
Department

David A. Sprynczynatyk
Director
Department of Transportation

John E. Von Rueden
Bismarck

Merlan E. Paaverud, Jr.
Director

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February 9, 2004

Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

ND SHPO Ref.: 97-0527, Draft EA, On-Base Snowmobile Trail, Grand Forks
AFB, ND.

Dear Ms. Durako:

We have reviewed the additional information received from your office on
February 4, 2004 for: *Environmental Assessment: On-Base Snowmobile Trail At
Grand Forks AFB, North Dakota* (Draft Version, 7 Jan 04).

We have no further comments on the draft Environmental Assessment, and look
forward to receiving the next (final?) version of the document.

Thank you for the opportunity to review this project. Please include the ND
SHPO Reference number listed above in any further correspondence for this
specific project. If you have any questions please contact Duane Klinner at (701)
328-3576.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer
(North Dakota)



**NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section**

Location:
1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:
701-328-5200

Mailing Address:
P.O. Box 5520
Bismarck, ND 58506-5520

January 20, 2004

Ms. Heidi Durako
319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Re: Environmental Assessment for Snowmobile Trail
Grand Forks Air Force Base, Grand Forks County

Dear Ms. Durako:

This department has reviewed the information concerning the above-referenced project submitted under date of January 8, 2004, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
2. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this

Environmental Health
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701-328-5150

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Water
Quality
701-328-5210

department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "L. David Glatt", written over a horizontal line.

L. David Glatt, Chief
Environmental Health Section

LDG:cc
Attach.



NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

Location:
1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:
701-328-5200

Mailing Address:
P.O. Box 5520
Bismarck, ND 58506-5520

December 2000

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

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DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

10 JAN 2004

Mr. Merlen E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck ND 58505-0200

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.


Dear Mr. Paaverud:

The U.S. Air Force is preparing an environmental assessment (EA) on an on-base snowmobile trail. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

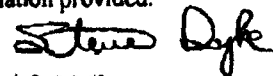

FOI WAYNE A. KOOP
Environmental Management Flight Chief

Attachment:
Environmental Assessment



North Dakota Game & Fish Dept.
100 N. Bismarck Expressway
Bismarck, ND 58501-5095

We have reviewed the project and foresee no identifiable conflict with wildlife or wildlife habitat based on the information provided.



(f) Michael G. McKenna
Chief, Conservation & Communication Division

Date: 1/15/04

EIAP Checklist

RCS# 04-070

Title Snowmobile Trail

Coordination	Email Sent: <u>12/18/03</u>	Date Received
	ADS/SGGB (Bio) <u>12/31</u>	
	ARW/JA (Legal)	<u>12/18/03</u>
	ARW/SE (Safety)	<u>12/19/03</u>
	CES/CECP (Community Planner)	<u>12/19/03</u>
	CES/CEV (Env)	
	CES/CEVA (Cultural)	<u>12/18/03</u>
	CES/CEVC (Air/Natural Mgr)	<u>1/7/04</u>
	CES/CEVC (Asbestos/LBP/tanks)	<u>12/24/03</u>
	CES/CEVC (Water Mgr) <u>12/31</u>	<u>1/7/04</u>
	CES/CEVP (Haz Mat/Waste)	<u>12/29/03</u>
	CES/CEVR (IRP) <u>12/31</u>	<u>1/5/04</u>
	OSS/OSA (Airfield Operations)	<u>12/18/03</u>

Public Notice Expiration: 2/15/04

Coordination w/Public Affairs <u>1/7</u>	<u>1/8/04</u>
Base Leader	<u>N/A</u>
GF Herald	<u>1/15/04</u>

Route	
CEV	<u>9-1-04</u>
Legal	<u>3-22-04</u>
ARW/CV	<u>NH</u>

External to Tracy <u>1/8/03</u>	
ND Department of Health	<u>1/20/04</u>
ND Game and Fish	<u>1/15/04</u>
State Historical Society of ND	<u>1/20/04</u>

11/19/03 MSgt Sternemann map
11/26/03 Info Sternemann
12/8/03 Map Mr Dallas

AFFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA }
COUNTY OF GRAND FORKS } SS.

103790

_____ of said State and County being
first duly sworn, on oath says:

That { she } is { _____ } a representative of the GRAND FORKS HERALD, INC.,

publisher of the Grand Forks Herald, Morning Edition, a daily newspaper of general circulation, printed and published in the City of Grand Forks, in said County and State, and has been during the time hereinafter mentioned, and that the advertisement of _____

On Base snowmobile trail

a printed copy of which is hereto annexed, was printed and published in every copy of the following issues of said newspaper, for a period of _____ time (s) to wit:

<u>1-15</u>	Yr. <u>07</u>	_____	Yr. _____
<u>1-17</u>	Yr. <u>07</u>	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is \$ 15.18;

That said newspaper was, at the time of the aforesaid publication, the duly elected and qualified Official Newspaper within said County, and qualified in accordance with the law of the State of North Dakota to do legal printing in said County and State.

Publication Fee \$ 15.18

Subscribed and sworn to before me this 22 day of Jan A.D. 04

Elaine Jansen
Notary Public, Grand Forks, ND

ENVIRONMENTAL ASSESSMENT Phelps Snowmobile Trail Project

CHEQUAMEGON-NICOLET NATIONAL FOREST
Eagle River-Florence Ranger District
Vilas County, Wisconsin

April 2002



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's Target Center at (202) 720-2600 (voice and TDD).

TO file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Summary

The proposed Phelps Snowmobile Trail Reroute Project is located on National Forest System lands in Wisconsin near the community of Phelps in Vilas County. Refer to Map #1 in Appendix A.

The Phelps Sno-Mo-Beelers Snowmobile Club has proposed to relocate approximately 2.4 miles of snowmobile trail from private land and Town road right-of-way to National Forest land. The purpose of the proposal is to eliminate an existing but unwanted snowmobile trail on private lands and locate the trail permanently onto National Forest lands north of the current trail location. Refer to Map #3 in Appendix A. Appendix I, Photos #2-6 show some of the locations of the current snowmobile trail on and adjacent to private lands.

In November of 1998, the Phelps Sno-Mo-Beelers Snowmobile Club presented the Forest Service with a "Special-Use Application" in which the snowmobile club asked that the Forest Service allow designation of a new snowmobile trail route on National Forest land. This new trail on National Forest land would replace a segment of existing snowmobile trail that was located on private lands and on Davies Road (a Town of Phelps road). Refer to Appendix A, Map #10 for road name and numbers.

According to the snowmobile club, the snowmobile trail was unsafe because some snowmobilers on Davies Road were speeding (the speed limit for snowmobiles on Davies Road was posted 20 mph) which led to near accidents between some snowmobilers and local traffic. Also, there were concerns from a private landowner who had allowed the designated trail to be located on his land that some snowmobilers were leaving the designated trail and trespassing onto fields. Appendix I, Photos # 4 and #5, show some of the area of concern (Davies Road and private lands).

This snowmobile trail has since been moved off Davies Road and onto private property (Map #5 Appendix A) thus solving the safety concern of mixing snowmobile and automobile traffic. However the private landowners do not want the snowmobile trail on their property any longer.

Chapter 2 of this environmental assessment describes the proposed action (Alternative 2) that would reroute the snowmobile trail onto the Nicolet National Forest (Map #7 Appendix A) and two additional alternatives proposed by the snowmobile club to reroute snowmobilers though both the Nicolet National Forest and the neighboring Ottawa National Forest in Michigan (Maps #8 and #9, Appendix A). In Chapter 2, Description of Alternatives, the Forest Service eliminates the two Ottawa reroute alternatives from further consideration because the alternatives are inconsistent with management objectives presented in the Ottawa National Forest Land and Resource Management Plan. Chapter 3, Affected Environment, and Chapter 4, Environmental Consequences continues to address Alternative 2 and the "No Action" alternative.

CHAPTER 1 PURPOSE AND NEED

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A. Introduction

This Environmental Assessment (EA) presents a proposal from the Phelps “Sno-Mo-Beelers” Snowmobile Club to relocate an existing segment of snowmobile trail from private property to National Forest land. The Forest Service began the environmental analysis with four alternatives including the “no action” alternative.

All four alternatives were presented to interested publics for comment. The Forest Service analyzed each alternative in the context of current National Forest Land Management Plans and direction contained in those Forest Plans. Public comments and opinions, which differ sharply as to how the Forest Service should proceed, helped define issues related to the four alternatives. Public comments are included in this document.

This EA evaluates the potential environmental effects of relocating a portion of State-Funded Snowmobile Corridor Number 6 from private lands to National Forest System Lands on the Eagle River-Florence Ranger District of the Chequamegon-Nicolet National Forest.

The proposed trail relocation project is located in Management Areas 2.1 and 6.3/9.1 on National Forest System lands on the Eagle River-Florence Ranger District of the Chequamegon-Nicolet National Forest.

Development of this EA is based on direction contained in the National Forest Management Act (NFMA) and its implementing Code of Federal Regulations (CFR) at 36 CFR 219; in the National Environmental Policy Act (NEPA); and in the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508.

In accordance with the provisions of 40 CFR 1502.20, this analysis is tiered to the 1986 Nicolet National Forest Land and Resource Management Plan and Final Impact Statement. These documents hereinafter referred to as the Forest

Plan, provide management direction and guidelines for the National Forest. The Forest Plan is available for review at the Eagle River Ranger Station as well as other offices on the Chequamegon-Nicolet National Forest.

This EA will provide the deciding officer with sufficient information to make a decision that will protect, restore and enhance environmental values. Other related federal regulations and laws include the Endangered Species Act, Clean Air Act (42 USC 7401); Clean Water Act (33 USC 1251); and the National Historic Preservation Act (16 USC 470).

The following analysis is for any portion of a new trail proposed for National Forest System (NFS) lands only. The Forest Service has no jurisdiction on non-National Forest lands. It would be the responsibility of the Phelps Sno-Mo-Beelers Snowmobile Club to obtain permission for any portion of the trail would be located on non-National Forest lands.

Designated State-funded snowmobile trails located on National Forest land are operated and maintained by the county under a Memorandum of Understanding (MOU) and Annual Operating Plan between the Forest Service and the local county. This MOU allows the county and the snowmobile club to perform routine maintenance to the trail corridors on National Forest land. Authorization to construct a new snowmobile trail on National Forest land on the Eagle River-Florence Ranger District has usually been through a special-use authorization issued to the local snowmobile club doing the work, but yearly operation and maintenance is covered by the MOU and the Annual Operating Plan.

The local county forest administrator's office administers the snowmobile trail program for the county in cooperation with local clubs and landowners and the Forest Service when National Forest lands are used. The counties are responsible for trail operation and maintenance and inspections. Counties generally have agreements with local snowmobile clubs to maintain snowmobile trails to standards set forth by State statutes and administrative rules. The State of Wisconsin provides financial aids to counties to operate and maintain trails and the counties distribute these funds to the clubs to do the work. Use of town jurisdiction roads as a snowmobile route is subject to approval by the town government. Proposals for new snowmobile trails and routes on National Forest land, whether new construction or using existing Forest Service roads, are subject to Forest Service approval. Use of private land for a snowmobile trail is subject to landowner approval. Local snowmobile clubs are the entity that actually grooms and maintains trails for the county. Clubs are required by the county/State to maintain liability insurance. Clubs are also responsible for obtaining landowner permissions and solving snowmobile routing problems if a landowner decides not to continue granting permission to allow the trail to pass through the private property.

B. Background

The recreating public has enjoyed snowmobiling on the Nicolet National Forest since the 1960's. As the snowmobiling sport and industry has evolved over the past 40 years, the amount of designated snowmobile trail located on the Eagle River-Florence Ranger District has increased from perhaps 60-80 miles in the 1960s (based on old maps) to approximately 140 miles in 2002. Snowmobiling has provided a significant economic contribution to the winter tourist industry throughout the State. Eagle River, Wisconsin located 20 miles southwest of the affected area has named itself the "Snowmobile Capital of the World" and hosts the annual World Champion Snowmobile Derby.

Snowmobile Trail Corridor 6 in the general area of Phelps and Davies Road has been in existence since the early 1980s. The January 1967 edition of the official Vilas County Snowmobile Trail Map does not show a trail in the Davis Road area. The closest snowmobile trail, according to this 1967 map was a loop trail using Boot Lake Road (Forest Road 2201) and what appears to be Forest Road 2563. A subsequent map dated 1978-79 and titled Snowmobile Trails; Nicolet National Forest shows a snowmobile trail in the same approximate area as the 1967 map. Refer to Appendix A, Map #10 for road name and numbers.

An official Vilas County Snowmobile Trail map dated 1982-83 shows a State-funded snowmobile trail on private land and on Davies Road in the same location as in 1998. It could be concluded that this segment of the snowmobile route (State Corridor #6) had used private land and the Davies Road location since at least about 1983.

In 1998 the Town of Phelps, located in eastern Vilas County, Wisconsin and the local Phelps Sno-Mo-Beelers Snowmobile Club closed a segment of State-funded snowmobile trail located on and near Davies Road, three miles northeast of Phelps, Wisconsin. The reason for closing the trail, according to the Phelps Snowmobile Club, was due to near accidents between snowmobiles and local automobiles on Davies Road and because of landowner complaints of trespass. The location of the trail in 1998 is shown on Map # 4 in Appendix A. Both snowmobilers and motorists feel it is unsafe to mix snowmobiles and automobiles on public highways.

On November 30, 1998 the Phelps Snowmobile Club president submitted an application for special-use permit to the Forest Service. The request was to use certain Forest Service roads in the Nicolet National Forest and in the Ottawa National Forest and Town roads in Wisconsin and Michigan to replace the snowmobile route on Davies Road and private land.

Subsequent field investigations showed that this initial proposal would require crossing a wetland and small drainage, some new trail construction to connect

existing Forest Service roads, and opening some closed Forest Service Roads to snowmobile traffic.

In the fall of 1999 the Eagle River-Florence District Ranger, after consulting with the Ottawa National Forest's Watersmeet District Ranger and staff, decided that any proposals to locate the snowmobile trail through the National Forests would need to have additional public involvement, an environmental analysis and a formal decision notice.

Following the initial proposal, other alternatives were developed. A second alternative would remain entirely on the Nicolet National Forest and not pass into Michigan and the Ottawa National Forest. This alternative would use existing Forest Service roads both open and closed and would also necessitate construction of approximately 0.7 mile of new trail. See map #7 in Appendix A.

On March 8, 2001 the Snowmobile Club president informed the Eagle River-Florence District Ranger that it would be acceptable to the Club and the Town of Phelps if the trail were relocated onto Boot Lake Road and north into Michigan and then use the same closed Forest Service roads on the north side of Norwood Lake. Refer to Map #9 in Appendix A.

C. Affected Area

The Phelps Snowmobile Trail Reroute affected area is located in the Nicolet National Forest 10 miles northeast of Eagle River, Wisconsin near the Michigan border. The affected area is described in the following table.

General Proximity	Legal Description	County/ Town
North of State Highway 17, east of Military Creek, north of Davies Road (Forest Road 3012).	Chequamegon-Nicolet National Forest lands within Township 42 North, Range 12 East, SE ¼ and SESW section 20, section 21, section 29, SESW, NESW and E1/2 section 30.	Vilas County/ Town of Phelps in Wisconsin

The Affected area boundary encompasses approximately 1,200 acres of Chequamegon-Nicolet National Forest land and 55 acres of private land under one owner. Refer to Map #11 in Appendix A.

This assessment will only address management on National Forest System lands in the affected area. No management actions will be recommended or conducted on private land. The Forest Service does not have the authority to conduct management activities on private lands. However interconnected and cumulative effects on adjacent private lands will be considered.

D. Forest Plan Direction – Nicolet National Forest

This section helps determine if the proposed action is consistent with Forest Plan direction. Some sections of the Forest Plan that are relevant to the proposed action are presented here.

Nicolet National Forest Land and Resource Management Plan Direction

The Nicolet National Forest Land and Resource Management Plan (1986) guides all natural resource management practices and establishes management standards for the Nicolet National Forest. The practices and standards are intended to allow use and protection of the Forest's resources while fulfilling legislative requirements and responding to public issues, concerns, and resource opportunities. Chapter 4 in the Nicolet Forest Plan and its companion FEIS, which discusses management direction, standards and guidelines and environmental effects associated with meeting this direction is hereby incorporated by reference.

The affected areas are managed according to standards and guidelines outlined in the Forest Plan Management Area Prescriptions (Nicolet Forest Plan, pp.83-155). The 1,200-acre affected area in Wisconsin is composed of management areas 2.1. and 6.3/9.1

Forest Plan Management Area Prescription 2.1. This management area prescription provides opportunities for a wide variety of motorized and non-motorized recreational activities. Management Area 2.1 emphasizes an uneven-age hardwood forest and wildlife associated with large stands or uneven-age northern hardwoods. Management Area 2.1 emphasizes a primarily roaded natural motorized recreation environment. Local roads may be open or closed to motorized use for intermittent periods. Roads not needed for management are closed to vehicle traffic. (Nicolet National Forest Plan page 94.)

The following two management areas are also present in the affected area. In the affected area this management area is a wetland and management objectives of 6.3 and 6.1 are similar.

Forest Plan Management Area Prescription 6.3. Management of these areas will emphasize non-suitable timberlands, wildlife habitat, and a primarily non-motorized recreation experience. This management area is made up of primarily wetlands but includes a variety of vegetation. The stands of trees are a mosaic of species, from large stands of treeless wetlands to lowland conifers to mixed upland and lowland hardwoods and upland conifers.

Forest Plan Management Area Prescription 9.1. Management of these areas will emphasize minimum management and investments, protection and maintenance

of environmental values, protection of the health and safety of the public. This management area is made up of a variety of vegetation. The stands of trees are a mosaic of species, from large stands of treeless wetlands to lowland conifers to mixed hardwoods and upland conifers.

Several Forest-wide Standards and Guidelines in the Nicolet National Forest Land and Resource Management Plan (LRMP) are applicable. These are:

Recreation Opportunities. Recreation developments will be placed with priority given to protecting the environment, correcting health and safety problems, complementing prescribed recreation opportunities and meeting demand. (Page 39 LRMP)

Trails. Where compatible, trails will serve dual or multipurpose use, such as for snowmobile and hunter-walking trails. (Page 43 LRMP)

Off-Road Vehicles (ORV). The Nicolet ORV policy basically allows motor vehicles on all National Forest Roads except those roads that are closed by signing, gating or other closure devices. The policy prohibits vehicle travel off of a road. (page 43 LRMP)

Off-Road Vehicles (ORV). Most trails are meant for snowmobile or foot travel, but those trails that look like roads are gated or otherwise closed to other vehicles. (page 43 LRMP)

Off-Road Vehicles (ORV). The policy allows snowmobiles to be operated on designated snowmobile trails and on un-snowplowed roads. (page 43 LRMP)

While ATVs are not mentioned by name in the Nicolet National Forest Land and Resource Management Plan, the policy affecting use of all terrain vehicles is that they are not permitted on National Forest land in the Nicolet National Forest (Forest Plan page 43 LRMP).

E. Previous Project Level Management Decisions Issued By The Forest Service Affecting Road Closures

This section describes a decision in 1990 by District Ranger Pam Gardiner that affected road management. Some of these roads are the same ones that have been proposed for use as a designated snowmobile route by the Phelps Sno-Mo-Beelers Snowmobile Club.

A summary of these decisions is presented here to help explain why some roads remain closed to motor vehicle traffic twelve years later. The decision notice made no distinction between types of motor vehicle traffic to which the roads were closed.

Eagle River Ranger District Decision. Road Closures - Boot Lake Timber Sale.

On July 3, 1990, District Ranger Pam Gardiner issued a decision notice and environmental assessment for the Sugar Maple and Boot Timber Sales. In addition to deciding on certain road building and timber harvest activities Ranger Gardiner's decided that Forest Road 2563A located in sections 20, 21 and 29 would be closed to motor vehicle traffic (which it currently is) and the "64 spur" located east of 2563A in section 21 would be closed with a mound at the private property line and obliterated (both of which were not done). This decision is mentioned here because under Alternative 2 (Map #7 Appendix A) in this analysis these roads would be used as part of the rerouted snowmobile trail but remain closed to other vehicle traffic.

This Phelps Snowmobile Trail reroute proposal does not propose to reopen roads to all motor vehicle traffic. Alternative 2 proposes to allow snowmobile use on roads along the proposed new snowmobile route that were previously closed to snowmobile traffic.

F. Forest Service Manual Direction

The Forest Service Manual provides objectives and policy for consideration of proposed special-uses in FSM 2702. The following Forest Service policy (ref. FSM 2703.1 – 2703.2) provides direction for decision makers when considering requests from individuals and organizations for uses of National Forest land:

Review of Proposed Use. The following must be considered when reviewing written requests for use of National Forest System lands:

1. Analysis of the proposed use's conformance with the Forest land and resource management plan;
2. Environmental analysis of the project proposal (FSM 1950);
3. Analysis of the need to use National Forest System lands; and
4. Analysis of the appropriateness of the use on National Forest System lands.

Denial of Use. Deny proposals for uses of National Forest System land which:

1. Are inconsistent with Forest land and resource management plans;
2. Are in conflict with other forest management objectives; or applicable Federal statutes and regulations; or

3. Can reasonably be accommodated on non-National Forest System lands, provided however, that First Amendment group uses (freedom of assembly and worship) may not be denied on this basis.

Do not authorize the use of National Forest System lands just because it affords the applicant a lower cost and less restrictive location when compared with non-National Forest System lands.

G. Wisconsin Department Of Natural Resources Requirement For State-Funded Snowmobile Trails

Counties and Snowmobile Clubs can receive state financial-aid and grants for the operation maintenance and construction of snowmobile trails. According to Wisconsin All-Terrain and Snowmobile Statutes and Administrative Rules (1999), Chapter NR 50, Administration of Outdoor Recreation Program Grants and State Aids, the minimum designated width for two-way snowmobile trail will be 10 feet and a maximum of 12 feet.

References to new snowmobile trail construction in this analysis will assume the above dimensions for trail width.

When town roads are designated and signed as a snowmobile route, snowmobile clubs can post snowmobile speed limits along the routes. For example, when Davies Road was a designated snowmobile route, the snowmobile speed limit was posted as "20 mph, ride single file".

H. Purpose And Need

Purpose The purpose of the proposed action is to provide a safe snowmobile route on National Forest land that would bypass and eliminate the existing snowmobile trail located on private property in the vicinity of Davies Road. (Map #5 Appendix A.)

Need The primary need to relocate the snowmobile trail has evolved since 1998. In 1998 this snowmobile trail was located partially on Davies Road as it had been for many years. In 1998 the need for a new trail location was realized because the trail location on Davies road had resulted in near accidents between automobiles and snowmobiles and complaints from local residents according to the snowmobile club president.

Currently, the snowmobile trail is located on private lands thus avoiding the need to use Davies Road. The Phelps snowmobile club has been able to keep the trail open only because these private landowners have allowed the trail "for one more year". This was a temporary decision by the landowners to accommodate the trail while the Forest Service conducted an environmental analysis including an opportunity for the public to make comments on the proposal. According to the Phelps Snowmobile Club president, these landowners will deny the snowmobile club the continued use of their land for the snowmobile trail.

The current proposal to locate a snowmobile trail on National Forest land is needed to keep this snowmobile trail (Corridor 6) open between Phelps and the trail system to the east in Wisconsin and Michigan. This snowmobile trail provides a connection between the Phelps area and the Nelma-Alvin Wisconsin area where snowmobilers can then access areas north in Michigan or continue east into Florence County. Keeping this segment of snowmobile trail open is important so that snowmobilers have a through east-west route in this area of Vilas County. Continuation of this snowmobile traffic is important for the Town of Phelps winter tourism. Local citizens as well as tourists use the snowmobile trail for recreation. The snowmobile trail west of the project area can also provide a utilitarian access to North Twin Lake for ice fishing.

The existing State-funded snowmobile trail has remained open by using private lands south and north of Davies Road thus avoiding routing snowmobiles on part of Davies Road (safety concern) as was done prior to 1998. Continued operation of this snowmobile trail has been possible through the cooperation of private landowners although this is not an acceptable long-term solution to the private landowners whose land is used for the snowmobile trail. Most landowners probably do not want a public snowmobile trail on or near their property when there is an opportunity to locate the trail on public lands.

The present need arises not only because of a safety concern and private landowner concern but also due to the preferences by snowmobilers to use public lands in the National Forest for a trail. Aesthetics is more than likely a preferential criteria for many snowmobilers in that they would prefer riding through a natural forest setting compared to riding trails passing through sights and sounds of private property developments. The current trail in the Davies Road area has sights and sounds of houses, powerlines, roads, driveways and farm fields.

Management Concerns to be addressed in this proposal are:

- The request to open some Forest Service roads that have been closed to motor vehicle use so that Vilas County and the Phelps Sno-Mo-Beelers Snowmobile Club can designate these roads as a State-funded snowmobile trail that are operated maintained and groomed for recreational snowmobiling. These roads are located on the Nicolet National Forest and on the Ottawa National Forest that and have, by prior decisions by the Forest Service, been closed to motorized traffic
- Constructing some new snowmobile trail to connect existing Forest Service roads so that these roads and trails can be used as a through snowmobile route.
- The effect on the human and wildlife environments of opening closed roads to snowmobile traffic and constructing new snowmobile trail.
- The safety of trail users.

I. Decision To Be Made

The Eagle River-Florence District Ranger, after considering environmental information presented in this EA, considering public comments and after consulting with other agencies, will decide:

1. Whether to approve or not approve the special-use application for construction and designation of a new snowmobile route on National Forest land as submitted.
2. Whether to approve the special-use application with modifications and if so, where and how the snowmobile trail would be located and used if the special-use application is approved.
3. Which terms and conditions will be included in the operating plan of a special-use permit if a permit to construct new snowmobile trail is issued to the Phelps Snowmobile Club.

J. Environmental Justice

NEPA requires an early and open process determining the scope of the issues related to a proposed action. To ensure public involvement of local minority and low-income populations extensive scoping was done for this project. In addition to the usual contact with county officials and environmental groups, an attempt was made to contact local citizens in the area of the proposed snowmobile trail reroute. Tribal representatives in northern Wisconsin were also contacted.

The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) brought a concern forward. GLIFWC states that it is inappropriate to open closed/gated areas to snowmobilers in the winter while keeping these areas closed to tribal hunters in the fall.

The tribal biologist for the Lac Du Flambeau Tribe has stated that existing [motorized] access for hunters should be maintained and that no additional areas should be closed off [to motor vehicles].

The proposed action, Alternative 2, would not be a change from the current access opportunities.

K. Proposed Action

The proposed action upon which the District Ranger will decide is whether to issue a special-use authorization to the Phelps Sno-Mo-Beelers Snowmobile Club that will allow the Club to construct and designate new snowmobile trail on National Forest land as described in Alternative 2 in Chapter 2 in this EA. The

trail would become part of the State-wide system of snowmobile trails that is signed and maintained by Vilas County and the Phelps Snowmobile Club.

The Proposed Action would result in the following connected actions by Vilas County and the Phelps Snowmobile Club:

- Fallen trees and limbs would be removed from the closed Forest Service roads that would be used for the snowmobile route through the National Forest.
- Where needed on existing closed Forest Service roads, prune and cut tree limbs and regrowth encroaching into closed roads to allow passage of snowmobiles and grooming equipment. A 10-12 foot width is needed.
- Place signing per State standards for snowmobile trails along the closed and open Forest Service Roads and Town roads in Wisconsin that would become the new snowmobile route;
- Remove any earth berms and install gates at the berm locations on those existing closed Forest Service roads so that the roads can be closed during the non-snowmobile season yet opened during the December-March snowmobile season to allow passage of snowmobile trail grooming equipment and snowmobiles.
- Construct new snowmobile trail in the locations shown on Map #7 in Appendix A by cutting vegetation and leveling ground as needed on 0.7 mile (one segment of 0.2 miles and one segment of 0.5 miles) in the Nicolet National Forest. Snowmobile trail construction is designated on this map by black dots. Black dashes represent existing road that would be used as part of the snowmobile route.
- Close access to new trail segments with gates or other closure devices so that motor vehicles cannot drive onto new trail segments during non-snow season.
- The Phelps Snowmobile Club would use motor vehicles during annual fall trail maintenance work such as removing fallen trees from the snowmobile route. No motor vehicles would be allowed in wetland areas of the trail route.

Scoping Process

Public scoping was conducted to determine issues and concerns related to the Proposed Action. The purpose of scoping was to concentrate the analysis on environmental issues of concern to the public and Forest Service managers.

Tribal Consultation Proposal letters were sent to 28 tribal contacts on February 10, 2000 . Contacts included Tribal Chairmen, foresters, and biologists, including Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and other representatives from Wisconsin, Minnesota and Michigan tribes. The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) brought a concern forward. GLIFWC states that it is inappropriate to open closed/gated areas to snowmobilers in the winter while keeping these areas closed to tribal hunters in the fall.

The tribal biologist for the Lac Du Flambeau Tribe has stated that existing opportunities for [motorized] access for hunters should be maintained (and it will be) and that no additional areas should be closed off [to motor vehicles].

Other Federal and State Agency Consultation The US Department of the Interior, Fish and Wildlife Service and the Wisconsin Department of Natural Resources were consulted. In addition, the Phelps Town Chairman and the Vilas County Forester were consulted during this environmental analysis and have been given an opportunity to comment.

Consultation has occurred with the State Historic Preservation officer (SHPO).

Public Involvement Notification concerning a proposal for the Phelps Snowmobile Trail has appeared in the Chequamegon-Nicolet NEPA Quarterly for several editions. On March 14, 2000 and again on April 3, 2001, public scoping letters were sent to nearby private property owners, other government agencies, and anyone else who has requested notification of proposed projects. Responses are summarized in Appendix B: Public Scoping Responses.

L. Issues Associated With The Proposed Action

The issues and concerns identification process is based on public scoping efforts and discussions with interdisciplinary team members and other Forest resource specialists. Public and professional responses were analyzed to identify the primary issues to be addressed in this document. Thirty one responses were received. Issues raised in comments that are specific to the Phelps Snowmobile Trail Project are addressed below. Appendix B of this document includes a table of all respondents, a summary of their comments and a response to comments.

This assessment will be sent to anyone who commented, asked to receive a copy of the assessment, or has requested all EAs from the district. A legal notice of the availability of this assessment for review and comment will appear in the Rhinelander Daily News and information concerning the availability of this EA for review will be provided to the Vilas County News and Review (Eagle River).

The following table displays categories of issues resulting from comments on the Proposed Action.

Issue Categories:

- A. This is a key issue in the analysis, used to develop alternatives. They are addressed throughout the EA.

- B. The issue can be mitigated. The issue is described in the EA, but is not considered a key issue for alternative development. These issues are also of concern to the Forest Service, although through project design, application of Forest Plan standards and guidelines, ecological unit interpretations, or Wisconsin State Best Management Practices (BMPs) they would be mitigated. Refer to the Appendices, Chapter 3, and Chapter 4 for more information on these issues.

- C. In addition to these issue groups were a number of miscellaneous issues that are not being analyzed in detail in this analysis. These issues and related discussion can be found in Appendix B.

Issue Tracking Matrix.

ISSUE	A	B	C
Public Safety	X		
Private Land	X		
Access Management	X		
TES species	X	X	
Soil/Water Effects		X	
Effects on Wildlife		X	
Forest Fragmentation		X	
Archaeological/historic sites		X	
Economics			X
General			X

The following summarizes those issues and concerns expressed which are addressed in the analysis or in Appendix B. A summarized list of comments identified is in Appendix B.

Public Safety

Public safety was a concern brought up by many respondents during the public comment period. Local residents and snowmobile riders would like any trail to be located off of Town roads and not mixed with vehicle traffic. Mixing snowmobile traffic and public motor vehicle traffic on public roads is not safe. Part of this snowmobile route was located on ½ mile of Davies Road prior to 1999. Implementation of Alternative 1 in this analysis could result in the

snowmobile trail being relocated on Davies Road. Refer to Chapter 4, Environmental Consequences, Safety, page 67.

Private Land

Private land is currently being used for part of the snowmobile trail. Landowners whose property on which the trail is located do not want the trail to continue to be located on their property and will be denying the continuation of this use on their land.

Access Management

There is a concern from some public that roads currently closed to public motor vehicle traffic including snowmobiles should remain closed to snowmobiles.

A concern was expressed that the existing level of access for hunters should be retained. Another concern was expressed that it was inappropriate to open roads for snowmobilers during the winter yet close them to tribal hunters during the non-snowmobile season. Both these concerns came from tribal representatives. These concerns are recorded in Appendix B, public scoping disposition and addressed on page 77 in Chapter 4.

Threatened, Endangered and Sensitive (TES) Species

The effects of Forest Service management practices on federally endangered or threatened wildlife as well as effects on regionally sensitive wildlife was identified as a concern by a number of individuals and agencies during the public scoping process. Disclosure of existing and potential effects at various levels, ranging from site-specific project level impacts up to district level impacts was addressed as a concern, as was the gathering and analysis of data at these corresponding levels.

There is an issue that two alternatives would use roads in the Ottawa National Forest and that these closed roads are located in the Ottawa NF's "Remote Habitat Area". Roads in this Remote Habitat Area have been closed for several years to help in the recovery of the Gray Wolf among other threatened or endangered species. Two preliminary alternatives were dropped from further consideration in response to this issue. Environmental consequences to TES species can be mitigated in Alternative 1 and Alternative 2.

Viability of threatened endangered and sensitive species are addressed in the Biological Evaluation.

A Biological Evaluation (BE) was done as part of the analysis. The BE addresses the impacts to Endangered, Threatened, and Sensitive (ETS) species.

The BE addressed the lynx which was listed as federally threatened on March 24, 2000.

Soil/Water Effects

Site-specific soil resource issues were raised internally and through public scoping for this project. A concern was raised that soils in the affected area have not been identified in a site-specific manner with field data showing where each soil type is, what its condition is and how these proposed activities would impact it.

All available soil resource information was utilized in this assessment and includes; 1) Chequamegon-Nicolet NF Ecological Classification and Inventory mapping, interpretations and characterizations for the LTA, ELT and ELTP scales (includes soil/landform/potential vegetation information) of the National Hierarchy of Ecological Units (ECO Map, 1993), 2) the Nicolet land-base detailed soil resource inventory, 3) the Natural Resource Conservation Service detailed Soil Survey of Vilas County (1998), 4) ecological reference area data collection plots (1991-1996), 5) current research and 6) the professional judgment of a soil scientist and other resource specialists. Detailed soil descriptions that serve as the basis for map unit characterizations and interpretations have been made at more than 2000 representative field locations within the Nicolet land-base by Forest Service, NRCS and University soil scientists, as part of the National Cooperative Soil Survey program and the FS Ecological Classification and Inventory program.

Another concern was expressed internally about potential soil rutting and compaction especially on the wetland soil type encountered in the affected area.

Effects on Wildlife

Issues specific to wildlife and wildlife habitat are identified here, although some of the issues are broad in scope, and overlap with other resource categories also discussed in this section. A concern that the selected alternative have the least amount of "environmental impacts", for example would likely encompass impacts to terrestrial and aquatic resources as well as on wildlife in general, and would include such issues as forest fragmentation, which can have impacts to both the wildlife and plant community. A description of potential effects on wildlife populations was identified as a concern, and in particular, a need to demonstrate the effects on population viability at the project level. Related to this concern, was how wildlife population viability can be addressed if no "base-line" data is available for the Management Indicator Species (MIS) that are generally used in comparing effects between alternatives. The potential impacts of access, both improving and discouraging, were identified as concerns, such that some users prefer access into remote habitat be maintained or improved, while others cited a

concern that improving access puts endangered and sensitive species of plants and animals at greater risk.

Forest Fragmentation

Potential environmental impacts related to forest fragmentation overlap with other resources concerns or issues as described above. Habitat fragmentation can occur at various levels and have varying effects on flora and fauna as well as on how the forest is used by people. Forest fragmentation is typically associated with forest management activities such as road building and clearcutting that create gaps or holes in what would otherwise be a contiguous tree canopy. Natural process, such as forest fires, insects and diseases, and especially severe weather events can also fragment a forest.

Trails can also create these gaps and holes in the forest canopy depending on the width of the trail. Closed canopy forests that are fragmented undergo changes that may include temperature increase or decrease, loss of soil moisture, and increased radiant energy (more sunlight/heating). The gaps can provide access points for the spread of native and non-native exotic plants and animals, especially weed seeds. Creating new corridors through mostly contiguous forest landscapes allows easier access for the generally more abundant "edge" species, which are often predatory on the less abundant or rare "interior" species. Many neotropical migratory birds are considered "interior" species, while species such as fox, crow, blue jay, and great-horned owls are considered "edge" species.

Archaeological/historic sites

Archaeological/historic sites will not be affected. There are no known sites near the proposed snowmobile routes.

Economics

There is a concern expressed that it is important to keep this snowmobile trail open because businesses in the Phelps area need the income that is brought into the area by snowmobilers.

CHAPTER 2 DESCRIPTION OF ALTERNATIVES CONSIDERED

- A. Introduction
- B. Alternative Formulation Process
- C. Alternatives Including the Proposed Action
- D. Comparison of Alternatives
- E. Mitigation Measures

A. Introduction

This chapter describes the alternatives to be considered in detail, those alternatives initially considered but dropped from further consideration, and summarizes the primary differences of each. Four key issues listed in Chapter 1 Part L (safety, private land, access management, TES species) were used to help formulate the alternatives and to develop appropriate mitigation measures.

Section 102(e) of NEPA states that all Federal agencies shall study, develop, and describe appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources.

Based on both internal and external scoping, the interdisciplinary team has recommended to the Deciding Official that there are no unresolved conflicts that require development of additional alternatives. A reasonable range of alternatives has been developed. After accumulation of data and discussion, the ID team and the responsible official identified one alternative in addition to the no action alternative as viable. Two additional alternatives were eliminated from further consideration and detailed study.

This chapter describes the Proposed Action, the “No Action Alternative and the two alternatives that were considered but eliminated from detailed study.

Interested members of the public, representatives of other agencies and tribes, and other Forest Service specialists were consulted to identify issues and concerns. Once these issues and concerns were identified, design features and mitigation measures were developed to avoid or lessen environmental and social effects.

Alternatives to the proposed action were eliminated from further consideration and detailed study if:

1. They would not meet criteria of the Purpose of and Need for Action statement. (All alternatives addressed the Purpose and Need for Action statement.)

2. They were inconsistent with the Nicolet National Forest or Ottawa National Forest Land and Resource Management Plans or they were not reasonable and practical as directed by these Forest Land and Resource Management Plans and other current management or policy direction. (The two alternatives that would use closed roads in the Ottawa National Forest were dropped for this reason.) Refer to Appendix D for a summary of pertinent Ottawa National Forest Plan direction.
3. They did not fulfill the goals, objectives, and desired future condition for the affected area as outlined in the Forest Plan.
4. They did not follow laws, regulations, and policies that govern land use on National Forests.

In accordance with the National Environmental Policy Act, a No Action alternative (Alternative 1) is being included in this analysis. This alternative is intended to serve as a control; showing the environmental and social effects of no action as well as to provide the deciding officer the option of no action. Each of the alternatives considered by the interdisciplinary team were analyzed based on the professional expertise of the team, public issues, and potential effects as a result of implementing the actions.

The alternatives have been designed to incorporate the mitigation measures and monitoring needed to address and resolve the key environmental issues that were identified through scoping.

B. Alternative Formulation Process

Alternatives were developed in response to identified issues and concerns and by considering the affected area's own unique features. The Proposed Action was developed to respond to a request to move a segment of a State Funded snowmobile trail from private lands to National Forest lands.

The Alternative comparison matrix on page 25 displays the alternatives in relation to potential project activities.

C. Alternatives Including The Proposed Action

Alternative 1-No Action

Alternative 1 is the "No Action" Alternative. The Deciding Official would deny the special-use application to construct and designate new snowmobile trail on National Forest Land. No new trail designation would occur on National Forest land and the existing snowmobile trail on National Forest land would remain open

for snowmobiling.

The purpose and need of this project proposal (keeping this trail open and providing a safe reroute) could be reasonably accommodated on non-national Forest Land although this is not desirable from the standpoint of landowners on whose property the snowmobile trail would be located.

Alternative 1 meets the intent of Forest Service Policy regarding review of written requests (special-use application) for use of National Forest lands and denial of use when the proposed use can “reasonably be accommodated on non-National Forest System lands...” (FSM 2703.2) See page 7 of this document.

The existing snowmobile routes on National Forest land would remain unchanged and open for snowmobiling as shown on Map #6 in Appendix A. The Phelps Sno-Mo-Beelers, the Town of Phelps and local landowners would need to agree on a snowmobile route that does not affect National Forest land.

Some of the non-National Forest snowmobile routes that have been used by the Snowmobile Club since 1998 are described here and on the attached maps.

Map #5 in Appendix A (Background Information Map) shows :

- The original location of the snowmobile trail on Davies Road that was closed due to safety concerns (also see Photo #5 in Appendix I);
- The location of the snowmobile trail when it was rerouted parallel to Highway 17 during the winter of 1999-2000, and;
- The location of the rerouted snowmobile trail on private property and Town of Phelps property during the winters of 2000-2001 and 2001-2002.

Comparing the approximate lengths of the above snowmobile trail routes and reroutes that have used private lands and public roads during the past three years (using the western most point of Davies Road and the eastern most point of Davies Road as the boundaries for comparison):

- original location of the snowmobile trail (pre-1999) = approximately 1.6 mile.
- the 1999-2000 reroute using Highway 17 right-of-way = approximately 1.9 mile.
- the 2000-2001 reroute and the same reroute used in the winter of 2001-2002 using private property = approximately 2.4 miles.

Activity associated with Alternative 1. Refer to Map #6, Appendix A. “No Action” (The location of the existing snowmobile trail on National Forest land would not change.)	Alternative 1. On National Forest Lands.
1. Approximate length of new trails that would need to be constructed on National Forest land (tree removal and/or leveling).	0.0 miles
2. Approximate length of all Forest Service roads currently closed to motorized use that would need to be reopened for snowmobile trail use (in addition to the current snowmobile route).	0.0 miles
3. Approximate length of existing Forest Service roads that are currently open to public vehicles that would be used as part of the proposed new snowmobile route. 3a. Of this mileage how much is through Town Roads or maintained by local Towns.	Does not apply. (The location of the current trail on National Forest land would not change under this alternative.)
4. Approximate length of existing snowmobile trail on National Forest land that would be closed because the trail would no longer be needed.	0.0 miles
5. Approximate gain or loss in miles of snowmobile trail on National Forest land compared to the existing snowmobile trail mileage on National Forest land.	0.0 miles
6. Approximate net gain or loss in snowmobile trail mileage on National Forest land.	0.0 miles

Alternative 2 – Reroute the Trail Onto Forest Road 2563 and 2563A

This alternative would keep the trail reroute entirely on the Chequamegon-Nicolet National Forest in Wisconsin. The proposed trail location would be in T42N, R 12E, Sections 20, 21, 29, and 30. Refer to Map #7 in Appendix A. This proposed snowmobile route would utilize Forest Roads 2563 and 2563A on the east side of Boot Lake Road (Forest Road 2201). Forest Road 2563 is open to motor vehicle traffic.

This proposed snowmobile route would also use an existing closed Forest Service road (spur #68) on the west side of Boot Lake Road. The snowmobile route would run on about 0.2 of Boot Lake Road. Historically, Boot Lake Road has not been snowplowed.

Currently there is one Forest Service gate located along this proposed route. The gate currently closes Forest Service Road 2563A to all motor vehicle traffic. Photo #10 in Appendix I shows a segment of Forest Road 2563A.

Where there is no existing road to use as a snowmobile route, trail construction would consist of cutting trees and brush and pruning back branches to clear a 10-12 foot wide corridor and then leveling the ground as needed. This alternative would require approximately 0.7 miles of new snowmobile trail construction: one segment of 0.2 mile and another segment of 0.5 mile. Segments of new trail construction are shown on Map #7 as black dots. The new trail construction would be located to take advantage of natural spacing between trees to minimize the need to cut trees whenever possible. Black dashes on this map show existing roads that would be used as a snowmobile trail.

Photos #9-13 in Appendix I show some locations of the proposed snowmobile trail.

Activity associated with Alternative 2. Refer to Map #7, Appendix A. The snowmobile trail would be rerouted onto Forest Road 2563 and 2563A.	Alternative 2. On National Forest Lands.
1. Approximate length of new trails that would need to be constructed on National Forest land (tree removal and/or leveling).	0.7 miles total. (One segment of 0.2 mile and one segment of 0.5 mile.)
2. Approximate length of all Forest Service roads currently closed to motorized use that would need to be opened for snowmobile trail use only.	1.8 miles
3. Approximate length of existing Forest Service roads that are currently open to public vehicles that would be used as part of the proposed snowmobile route. 3a. Of this mileage how much is over Town Roads or maintained by local Towns.	0.9 miles 0.2 mile on Boot Lake Road
4. Approximate length of existing snowmobile trail on National Forest land that would no longer be used because the snowmobile route would be relocated. Refer to Map 7.	1.5 miles. However most of this trail mileage is existing road and the road would remain.
5. Approximate gain or loss in miles of snowmobile trail on National Forest land compared to the existing snowmobile trail mileage on National Forest land.	Gain = 3.4 miles Loss = 1.5 miles.
6. Approximate net gain or loss in snowmobile trail mileage on National Forest land.	1.9 mile gain in snowmobile trail mileage on NF land)

D. Alternatives Dropped From Further Consideration

The Forest Service has dropped two alternatives from further consideration. These proposals would have designated the snowmobile reroute on roads in the Ottawa National Forest that have been closed to motor vehicles as part of the Ottawa National Forest's "Remote Habitat Area". The "Remote Habitat Area" designation is intended to help in the recovery of the gray wolf, a threatened wildlife species. The Forest Service determined that the proposals to reopen these roads to snowmobile traffic, even though the roads would be closed to non-snowmobile traffic, would be inconsistent with the Ottawa National Forest Plan direction. Refer to Appendix D.

The Forest Service assessment of this proposal indicates that while the need to reroute the original snowmobile trail off of Davies Road is in the public interest for safety, the location of the Phelps Snowmobile Club's original proposed solution (the Club's proposed action to route all snowmobiles through the Ottawa National Forest in Michigan and past private properties in Michigan) is not in the overall public interest and is inconsistent with the Forest Plan objectives for the Ottawa National Forest.

Appendix D is a summary of Ottawa National Forest Land and Resource Management Plan management prescriptions and standards and guidelines applicable to the area in which the proposed snowmobile trail would have been located. Also included in Appendix D is a summary of a past 1990 decision by the Watersmeet District Ranger concerning Forest Service road closures in the Finger Lake/Norwood Lake area.

Had either of these two Ottawa alternatives (refer to Maps #8 and #9 in Appendix A) been considered throughout this environmental analysis, there would have eventually been a separate decision from an Ottawa National Forest Official to implement that alternative.

The following alternatives to the proposed action were considered but were not fully developed and analyzed because designating a groomed snowmobile trail on closed Forest Service roads in this area of the Ottawa National Forest being managed as a "Remote Habitat Area" was considered to be inconsistent with Ottawa National Forest Land and Resource Management Plans and was not reasonable and practical as directed by the Ottawa Forest Land and Resource Management Plans and other current management or policy direction. Specific relevant sections of the Ottawa Forest Plan are provided in Appendix D.

Wisconsin-Michigan Reroute Using Closed Forest Service Roads

This alternative was dropped from further consideration. A map illustrating this alternative is in Appendix A, Map # 8.

This is the original proposal presented to the Forest Service by the Phelps Snowmobile Club. Under this alternative the snowmobile trail would be rerouted on Chequamegon-Nicolet National Forest land north into Michigan onto the Ottawa National Forest then back to the Chequamegon-Nicolet National Forest in Wisconsin to connect with the existing trail. The trail route would primarily utilize existing Forest Service roads and about 1.2 mile of Town road in Michigan. Some of these roads on both the Ottawa and Chequamegon-Nicolet National Forest are closed with berms and gates. The berms would be replaced with gates to allow seasonal closure, administrative use, and annual maintenance prior to the season. Some new trail construction would be needed. Where there is no existing road to use as a snowmobile route, trail construction would consist of cutting trees and brush and pruning back branches to clear a 10-12 foot wide corridor and then leveling the ground as needed.

Wisconsin-Michigan Reroute Using Closed Forest Service Roads and Boot Lake Road (FR 2201)

This alternative was dropped from further consideration. A map illustrating this alternative is in Appendix A, Map # 9.

Under this alternative, the trail would utilize the Town road named Boot Lake Road (Forest Road 2201) instead of closed Forest Service roads on the west side of Boot Lake Road as the other dropped alternative would have done. Snowmobile riders would have a straight road, which would have greater potential for vehicle-snowmobile accidents. Riders would also be tempted to use excessive speed within the right-of-way. An additional reason for not considering this alternative in detail is that it would not address public safety concerns adequately. This alternative has the same Ottawa National Forest issues as the other Ottawa National Forest alternative that was dropped from further consideration.

E. Comparison of Alternatives

The following table provides the reader with display of how the alternatives differ.

Activity	<u>Alternative 1.</u> No action. Snowmobile trail on NF Forest Land remains unchanged.	<u>Alternative 2.</u> Proposed Action Reroute trail onto Forest Road 2563 and 2563A. Map #7	<u>DROPPED FROM FURTHER CONSIDERATION.</u> Reroute trail north through Ottawa NF. See Map #8.	<u>DROPPED FROM FURTHER CONSIDERATION.</u> Reroute trail north via Boot Lake Road and Ottawa NF. See Map #9.
<u>New Trail Designation.</u> Amount of new designated trail that would require new construction (tree removal and/or leveling).	0.0 miles	0.7 miles	0.3 miles	0.1 miles
<u>New Trail Designation.</u> Amount of new designated trail that would be located on existing open or closed road corridors.	0.0	2.7 miles	6.4 miles	5.0 miles
<u>Access Management.</u> Amount of existing open roads proposed for closure to motor vehicles except for snowmobiles	0.0	0.0	0.0	0.0
<u>Access Management.</u> Amount of proposed new trail construction that would be closed to motorized traffic except for winter snowmobiling.	Does not apply. No new trails on National Forest land.	0.7 miles All newly constructed trails would be closed to motor vehicles.	0.3 miles All newly constructed trails would be closed to motor vehicles.	0.1 miles All newly constructed trails would be closed to motor vehicles.
<u>Safety.</u> Would a snowplowed road be used as part of the snowmobile route? (Potential use by both automobiles and snowmobiles.)	No change from current condition. 0.2 mile of Shooting Lane Road.	0.2 mile of Boot Lake Road although not usually plowed. 0.2 mile of Shooting Lane Road.	About 1.2 mile of Town Road in Michigan. 0.2 mile of Shooting Lane Road.	About 3.4 mile including Boot Lake Rd. However Boot Lake Rd not usually plowed. 0.2 mile of Shooting Lane Road.
<u>Use of Private Land</u> Would the Alternative need to use private land to keep the trail open?	Private land is being used for part of the current snowmobile trail.	No Town of Phelps land would be used where the trail leaves NF land on the east side.	No Town of Phelps land would be used where the trail leaves NF land on the east side.	No Town of Phelps land would be used where the trail leaves NF land on the east side.

F. Mitigation Measures for Alternatives 1 and 2

Soils

Alternative 1

No mitigation measures.

Alternative 2

- **Champion silt loam of 1-6 percent slope**
Operation of heavy equipment for ground disturbing construction of portions of new trail would occur when the soil surface is not saturated (dry summer/dry fall) or during frozen ground conditions. A minimal amount of soil and organic matter surface material displacement would be the goal, when leveling new trail.
- **Monico silt loam soil type of 0-1 percent slope**
Operation of heavy equipment for ground disturbing construction of portions of new trail would occur when the soil surface is not saturated (dry summer/dry fall) or during frozen ground conditions. A minimal amount of soil and organic matter surface material displacement would be the goal, when leveling new trail.
- **Seelyeville Muck soil type of 0-1 percent slope**
Operation of heavy equipment for ground disturbing construction of portions of new trail would occur when the ground is frozen. A minimal amount of soil and organic matter surface material displacement would be the goal, when leveling new trail. However, no heavy equipment would be allowed in Seelyeville Muck soil type (wetland). All new snowmobile trail construction work in the Seelyeville Muck soil type will be done by hand.

Clearing vegetation for the new snowmobile trail in this soil type will not exceed the minimum width needed to become a State funded snowmobile trail (approximately 10 feet).

Additional mitigation measures for all soils:

- Operation of heavy equipment will not occur when surface soil is saturated. Heavy equipment will not be used within 50 feet of the Seelyeville Muck soil type (wetland);
- The Forest Service will mark with ribbon the location of and clearing limit widths for new snowmobile trail construction.

- Forest Service personnel will be present when trail construction work is occurring. Forest Service personnel will inspect new trail clearing activity and will decide, after consultation with a snowmobile club representative, whether trail leveling is needed.
- The Phelps Snowmobile Club will close at both ends any segment of existing snowmobile trail that would be unneeded as a result of selecting Alternative 2. Closure will be with a landscaped closure (boulders and tree planting) The Forest Service will provide direction for closure in an operating plan made part of a special-use permit.

Water

Alternative 1

No mitigation measures.

Alternative 2

A decision to select Alternative 2 would include the implementation Wisconsin Best Management Practices ("Wisconsin's Forestry Best Management Practices for Water Quality," publication number FR093, Wisconsin Department of Natural Resources, 1995).

Best Management Practices (BMPs) for Water Quality were developed with projects in mind such as road building, timber harvest mechanical site preparation and prescribed burning but many of these BMPs can also be applied to the Phelps Snowmobile Trail Project to mitigate effects on soil and water resources.

- Minimize soil exposure and compaction to protect ground vegetation and the duff layer.
- Use existing roads when they provide the best long-term access.
- Minimize the number of stream crossings. (There are no stream crossings in the Proposed Action. However there is one stream crossing in one of the alternatives that was dropped from further consideration and described as "Wisconsin-Michigan Reroute Using Closed Forest Service Roads.")
- Whenever practical, avoid [locating roads and landings in] wetlands. Otherwise use extreme caution.

- Limit the number, length and width of [roads and skid trails] to the minimum necessary.
- Minimize disturbance of vegetation.

In addition, the Army Corps of Engineers will be consulted to determine if a permit is needed for trail construction in the wetland.

The Forest Service would issue a special-use authorization for trail construction to the Phelps Snowmobile Club if the trail relocation proposal were approved. No trail relocation or construction activity could occur prior to receiving a special-use permit. Mitigation measures would be included in an operating plan attached to the permit.

The trail through the Seelyville soil type would be closed to all motor vehicles except snowmobiles and snowmobile trail snow-grooming equipment during the winter.

No heavy equipment is allowed in Seelyville Muck soil type (wetland). All new snowmobile trail construction work in the Seelyville Muck soil type will be done by hand.

Clearing vegetation for new snowmobile trail in the Seelyville Muck soil type will not exceed the minimum width needed to become a State funded snowmobile trail.

Vegetation

Alternative 1

No mitigation measures.

Alternative 2

- The Forest Service will designate locations of new trail construction. Crossing of the wetland with new trail construction will be such to minimize the amount of trail in the wetland.
- The Forest Service will mark with ribbon the location of and clearing limit widths for new snowmobile trail construction.
- Forest Service personnel will be present when trail construction work is occurring. Forest Service personnel will inspect new trail clearing activity

and will decide, after consultation with a snowmobile club representative whether trail leveling is needed.

- Use natural spaces between trees when locating new trail in order to minimize tree cutting.

Wildlife

Alternative 1

No mitigation measures.

Alternative 2

Forest-wide standards and guidelines are in place for management of gray wolf and bald eagle should these species be located at a later date following project implementation. (Page 58-59 Nicolet Land and Resource Management Plan).

Bald eagle: Follow Forest Plan guidelines for bald eagle management. Page 58 Nicolet Land Management Plan).

Eastern timber wolf: Follow Wisconsin Timber Wolf Plan (1999) and the Nicolet Land and Resource Management Plan (LRMP page 59, 1986) guidelines if wolves colonize project area.

Regional Forester's Sensitive Species and "Likely To Occur" species.

Northern goshawk and red-shouldered hawk - Follow forest plan guidelines for raptor management, i.e. implement 20 acre no disturbance zone and no trail construction activities between March 1st and August 1st. (Note, biologists feel March 1st is an acceptable date for the northern portion of the Nicolet Forest which is contrary to the February 1st date identified in the LRMP). The guidelines as they would pertain to this project would include closing the trail or affected portions of the trail as necessary to protect these woodland raptors during the dates described above.

Black-backed Woodpecker – None.

Goblin fern (*Botrychium mormo*): (This species has not be located in the affected area, thus these mitigation measures are identified should this species be found at a later date.) Activities that could disturb *Botrychium mormo* plants, their habitat, or microhabitat should not occur within 250 feet¹ of *B. mormo*

¹ The January 2000 Population Viability Assessment on upland forested ferns, offered 250 feet as a distance of edge effects. See Section 7b, Threats from Forestry Practices.

populations. The extent of *B. mormo* populations will be determined by a Botanist, Biologist, Ecologist, or other qualified observers (technicians or contractors) designated by a Botanist, Biologist, or Ecologist. In suitable habitat that is immediately adjacent and contiguous to existing populations beyond the 250-foot no-activity zone, site disturbing activities should occur only during frozen ground conditions, and a minimum canopy closure of 70% should be maintained (USDA Forest Service 2001a).

Blunt-lobed Grapefern (*Botrychium oneidense*), Northern Wild Comfrey (*Cynoglossum virginianum* var. *boreale*), Spreading Woodfern (*Dryopteris expansa*), American Ginseng (*Panax quinquefolius*), American Elm (*Ulmus americana*), Large Toothwort (*Cardamine maxima*), Male Fern (*Dryopteris filix-mas*), and New York Fern (*Thelypteris noveboracensis*):

Prevent introduction of non-native invasive plant species by ensuring that trail building equipment is free of dirt and weed seeds (USDA Forest Service 2001b).

Avoid cutting or damage to American elm.

Other Sensitive Species Not Addressed In The Biological Evaluation.

- American marten (*Martes americana*): Maintain road closures upon completion of the snowmobiling season.
- Stoloniferous sedge (*Carex assiniboinensis*): Avoid direct physical alteration of the population site.
- Swainson's thrush (*Catharus ustulatus*): Avoid unnecessary cutting of understory spruce and balsam fir trees.
- West Virginia white (*Pieris virginensis*): None.
- Mingan's moonwort (*Botrychium minganense*): None.
- Toothwort (*Cardamine diphylla*): None.
- Broad beach fern (*Phegopteris hexagonoptera*): None.

For any species....

- If any critical threatened, endangered or sensitive habitat sites are discovered the District Wildlife Biologist will be consulted immediately develop appropriate steps to protect the site.

Public Safety

Alternative 1

- Segments of the snowmobile trail located on town roads could be posted with “20 mile per hour speed limit single file” signs as has been done in the past on other segments of snowmobile route located on public roads.
- Forest Service law enforcement personnel could cooperate with the Vilas County Sheriff’s department and the WDNR in monitoring and enforcing snowmobile safety and speed limits. Where appropriate, post speed limits on snowmobile trails especially where co-located on Town Roads.
- Provide more aggressive safety and speed limit signing on any town road used as a route and provide more frequent law enforcement patrol for speed violation.

Alternative 2

- Segments of the snowmobile trail located on town roads could be posted with “20 mile per hour speed limit single file” signs as has been done in the past on other segments of snowmobile route located on public roads.
- Forest Service law enforcement personnel could cooperate with the Vilas County Sheriff’s department and the WDNR in monitoring and enforcing snowmobile safety and speed limits.
- Where appropriate, post speed limits on snowmobile trails especially where co-located on Town Roads. Where appropriate, post speed limits on snowmobile trails especially where co-located on Town Roads.
- Timber hauling on Forest Service roads used as snowmobile routes would not occur on weekends and holidays.

Heritage Resources

Alternative 1

No mitigation measures.

Alternative 2

If during any part of the project any previously unknown artifacts are discovered the project will stop until the find can be evaluated.

Roads and Trails

Alternative 1

No mitigation measures.

Alternative 2.

- Phelps Snowmobile Club, at their expense, install gates and signing on both ends of all segments of newly designated snowmobile corridor locate on existing but closed road segments so that the segment of trail will be closed to all motor vehicle traffic during the non-snowmobile season. Gates will meet Forest Service design specifications.
- Forest Service personnel will be present when trail construction work is occurring. Forest Service personnel will inspect new trail clearing activity and will decide, after consultation with a snowmobile club representative whether trail leveling is needed.
- The Snowmobile Club will install a gate on the southern terminus of Forest Road “Spur 164” on National Forest land at the private property boundary in Section 21. This will help prevent motorized traffic from entering the trail system from the south.
- The Snowmobile Club will install a gate with approved Forest Service signing (non-motorized traffic only) on the trail on National Forest land at the point that the trail leaves National Forest land in section 21 near the Town of Phelps property. The gate will be closed during the non-snowmobile season.
- A special-use permit will be issued to the Phelps Sno-Mo-Beelers to install and maintain gates along the snowmobile route. Gate maintenance and repair will be the responsibility of the Snowmobile Club.
- Gates will be installed to close the trail where the route is currently closed with berms. Gates will be installed at the cost to the Club using gate design plans provided by the Forest Service.
- The Phelps Snowmobile Club will close at both ends any segment of existing snowmobile trail (that is not part of a Forest Service road) that would be unneeded as a result of selecting Alternative 2. Closure will be with a landscaped closure (boulders and tree planting). The Forest Service will provide a closure and rehabilitation plan.
- The snowmobile club will install a “no snowmobile” sign on Forest Road 2563 at the intersection with Forest Road 2563A where the proposed

snowmobile route leaves 2563 and turns onto 2563A. This is to discourage snowmobilers from leaving the designated trail and riding on the remainder of 2563 to the private property on the south side of Norwood Lake. The snowmobile Club will install "no snowmobile" signs at other locations on the proposed trail as determined appropriate by the Forest Service to discourage snowmobilers from leaving the designated trail.

CHAPTER 3 AFFECTED ENVIRONMENT

- A. Physical Factors
 - 1. Soils
 - 2. Water Resources

- B. Biological Factors
 - 1. Vegetative Resources
 - 2. Wildlife and Fish

- C. Social Factors
 - 1. Public Safety
 - 2. Private Lands
 - 3. Economic Environment
 - 4. Visual Quality
 - 5. Recreation
 - 6. Heritage Resources
 - 7. Access; Roads and Trails

This chapter provides a brief description of the existing social and ecological conditions that are present within the area affected by the proposed action (Alternative #2)).

A. Physical Factors

1. Soils

Existing condition

This affected area is within the Iron River/Argonne Drumlins Landtype Association, LTA. Landscape pattern is characterized by northeast to southwest trending drumlin uplands and valleys. Windblown fine sand or silt surface soils overlie gravelly sandy loam glacial till deposits.

Landtype Associations are subdivided into Landtypes, LTs, to map and define similar ecological conditions relating to soil moisture, nutrients, drainage, slope and other chemical, physical and biological characteristics. Landtypes are further subdivided to map Landtype Phases LTPs that define soil characteristics at the most site-specific scale.

This affected area is primarily mapped as Iron River ecological landtype, LT. This Landtype is subdivided into 4 mapping units, or Landtype Phases. The soil types mapped here are the Champion, Monico and Cable silt loam series. There are five detailed soil descriptions for the Champion soil and five descriptions of the Monico soil from Nicolet ecological reference area plots taken within this affected area. Soil texture at these sites is silt loam in the surface 20-25 inches over

gravelly loamy sand subsoil. The ground surface is often very stony. Champion is moderately well drained (due to seasonally perched water above a dense layer, fragipan), with mesic moisture regime and a rich nutrient status. Permeability is moderate in the surface and moderately rapid in the subsoil, but slow in the fragipan, where present. Slope classes of 1-6 and 6 to 20 percent are mapped. Ratings for heavy equipment use are moderate. Potential for soil erosion is slight. Potential for soil compaction, rutting and displacement is moderate to severe if operation of heavy equipment occurs when the soil surface is saturated. Season of operation for heavy equipment on this soil should be winter (frozen ground), or dry summer and fall.

Monico and Cable soils are somewhat poorly and poorly drained, respectively, indicating the presence of free water within 1-3 feet of the soil surface during wet seasons. Slope class is 0 to 1 percent for these two mapping units. Erosion potential is slight. Rating for heavy equipment use is severe during the wet seasons. Season of operation for equipment on these sites should be winter or dry summer periods.

There is a small acreage of the Carbondale Landtype in this affected area. At the Landtype Phase level the soil series is Seelyeville muck. This LTP is mapped on 0 to 1 percent slopes, is very poorly drained organic material more than five feet thick and is found in depressions and drainages. Erosion potential is slight. Rating for heavy equipment use is severe due to wetness. Season of operation should be winter-frozen ground.

2. Water Resources

Existing condition

The affected area lies within the Wisconsin River watershed. There are no perennial streams in the affected area but there are some defined intermittent or ephemeral drainages. There are about 275 acres of wetlands in the affected area, composed primarily of lowland conifers such as balsam fir, black spruce and alder. The soil type is Seelyeville muck soil type (see soils above). Also see additional discussion below for vegetation resources

The southern edge of Norwood Lake also lies within the affected area.

B. Biological Factors

1. Vegetative Resources

Existing condition

The vegetative composition within the Phelps Snowmobile Trail Reroute affected area consists of forest habitat types found throughout northern Wisconsin. Generally, the vegetative cover consists of pole and mature size unevenage

northern hardwoods. In wetlands associated vegetation is a primarily lowland conifer such as balsam and spruce and alder.

The landscape pattern of the affected area is characterized by northeast to southwest trending drumlin uplands and valleys that occupy the highest elevations in the landscape. The wetlands have the same shape and orientation as the drumlins in which they are embedded. Prior to European settlement the area would have consisted of large blocks of old growth hemlock/hardwood, with large diameter trees, numerous amounts of standing and downed wood debris, and individual tree gaps. Patches of younger aged forest or pioneer species such as aspen or birch would have been interspersed. The lower, inter-drumlin areas probably provided suitable conditions for a variety of cover types such as lowland conifer, mixtures of aspen, fir, and birch, and areas of bogs and marsh.

The existing landscape pattern is one of larger patches, generally ranging from 50-200+ acres, and comprised of pole and saw log sized northern hardwoods. Interspersed amongst the larger patches, are smaller patches (1- 50 acres) of pole-sized white spruce/balsam fir/aspen, regenerating aspen, patches of lowland conifer, lowland hardwood; and open/shrub wetlands. Access to portions of the affected area consists of mostly unimproved or gravel roads. Some roads are closed to motor vehicle traffic with either gates or earth mounds. Overall, the affected area is mostly forested, but the tree canopy is somewhat "fragmented" with existing roads, and the one existing snowmobile trail on National Forest land route as described in Alternative 1, and vegetation of differing heights, either man-caused or natural.

The term "fragmentation" is generally used to describe the vegetative landscape when like blocks or units of vegetation are either reduced in size or bisected by different forest types, or by rivers, roads, trails, or utility corridors etc. The area described in the paragraph above is considered fragmented with respect to the differing patch sizes and transportation/access routes. Effects resulting from fragmentation operate at different scales and can have positive or detrimental impacts on a wide range of wildlife and vegetation. Some effects known to occur when large blocks of contiguous hardwood forest are fragmented by vegetative type conversions and/or canopy breaking corridors, include micro climatic changes (changes at or near the soil/snow surface) that result in either dryer or wetter soil conditions, soil/snow compaction, increased or decreased temperatures, increased wind effects (usually increased desiccation of soil and vegetation), fragmentation of habitat for a variety of species, and the disruption of ecological processes across the landscape.

Corridors through fragmented landscapes provide avenues for the introduction and spread of non-native species as well as travel routes for predators more typically associated with more open or "edge" conditions. Conversely, these same corridors can provide barriers to some species of wildlife, and inhibit natural gene flow for others. Finally, existing and especially newly developed

corridors can either maintain or increase the amount of noise disturbance in a forested landscape, and can inhibit use or colonization of an area by edge sensitive wildlife.

The existing snowmobile trail on National Forest land (refer to map # 4 in Appendix A) passes through a transition zone between the edge of a black spruce swamp and upland hardwood in the SW ¼ of Section 29. Where the existing trail runs along this eco-tone or transition zone it causes a change in vegetation in the trail corridor, as shrubs are both physically damaged as well affected by changes in hydrology due to the driving of frost deeper into the ground.

A survey for threatened and endangered and sensitive (TES) plant species and non-native invasive plant species has been conducted. No TES plant species or invasive species were found in the affected area.

2. Wildlife and Fish

Existing condition

The animal community within the affected area is typical of most of northern Wisconsin supporting white-tailed deer, bear, coyote, bobcat, fisher, red fox, beaver, otter, and a whole host of other small mammals, birds, reptiles, amphibians, insects and fish. Species less commonly seen include American pine marten, timber wolf, badger, and rarely moose. Habitat within the affected area is mostly undeveloped, which greatly enhances opportunities for many of the above-mentioned species to exist here. The various forest types described also create conditions suitable for supporting a wide variety of plant life. According to Nicolet National Forest Land Management Plan Wildlife Documents (1986), approximately 1,000 species of plants are thought to occur on the forest, but not all of these would occur in the affected area.

In addition to wildlife and plants common to the area, federally endangered, threatened, and species proposed for listing, are also considered in this project analysis. Species identified in this category are listed in Table 1 of Appendices F&G. With regard to the existing condition, habitat is suitable, according to the U.S. Fish and Wildlife Service (USFWS) for eastern timber wolf and bald eagle. The USFWS also considered habitat potentially suitable for Kirtland's warbler, but this species has not been found on the Forest to date. The entire Eagle River-Florence District is considered to be potential wolf habitat according to the Recovery Plan for the Eastern Timber Wolf (1992), and wolves have been reported in Michigan, north of the affected area. A breeding population of wolves has not been confirmed to date on the Nicolet, but tracks and sightings are reported most years at various locations across the forest.

Bald eagles now occupy most of the habitat available to them. Territories occur on most of the larger lakes, and many of the smaller ones as well. Statewide,

numbers have been increasing, with occasional dips in the population. No nest sites are known to occur in or near the affected area.

One of the most recent animals listed by the U.S. Fish and Wildlife Service is the Canadian lynx. Lynx tracks were identified in snow in 1994 10-12 miles east of the affected area. Habitat for lynx typically includes areas of heavy conifer and deep winter snows. Habitat in the snowmobile trail reroute affected area is probably not suitable, primarily due to insufficient snow depth that allows both bobcat and coyote to out-compete the lynx.

The Biological Evaluation prepared for this environmental analysis also discusses lynx, bald eagle, and timber wolf.

Appendices F and G lists 46 Regional Forester's Sensitive Species and 18 Species Likely to Occur, which are analyzed in the Biological Evaluation. These tables identify habitat potential and the likelihood of occurrence within the affected area. Below is a brief overview of the federally listed species with regard to the affected area.

Eastern Timber Wolf - No wolves are known to occur specifically within the affected area, but habitat is considered suitable according to the Eastern Timber Wolf Recovery Plan and wolves have been documented on the Eagle River Florence Ranger District. Pack activity is suspected both north of the affected area, as well as 12 to 15 miles south of the affected area. Direct and indirect effects on wolves is measured (estimated) by the amount/potential amount of disturbance in denning areas; the measurement of road densities in existing and potential habitat; and the numbers of white-tailed deer based on numbers of deer per square mile of deer range. The affected area is included in DNR deer management unit 35. The overwinter goal for this unit is 20 deer/mi.² Deer densities of 15/mi.² or greater would favor wolf. Open road densities exceeding 2 miles/mi.² or total road densities exceeding 4 mi/mi.² are thought to have negative impacts on wolves and wolf habitat because of existing or potential increased human disturbance.

Canada Lynx – Overall, this region of the forest does not receive the deep snows that may provide an advantage over competing predators that share habitat with the lynx. There are two possible lynx track records (in snow) from the mid 1990's, found approximately 12-15 miles east of the affected area, but subsequent surveys of that area specifically conducted for lynx during fall 1999, 2000 and 2001 have indicated that lynx are not present. Results of the final 2001 survey were initial and final results will not be available until spring 2002.

Bald Eagle – Approximately 20 active eagle territories are known across the Eagle River – Florence Ranger District. Historically eagle have nested along the shores of the larger lakes in the Phelps area, but probably forage on the smaller

size lakes throughout the area. The closest known active nest site is approximately two miles from the trail routes.

Kirtland's Warbler - This species has never been documented on the forest, and only rarely occurs outside of lower Michigan, it is not usually evaluated in project analysis unless some suitable habitat occurs in the proposed project. The affected area is comprised of primarily hardwood, red pine, white spruce and lowland conifer forest and is therefore unsuitable for this species. No analysis will be conducted for this species for this specific project.

The existing condition for other species included in the evaluation of this project include ten Regional Forester's Sensitive Species (RFSS), and 18 "Likely To Occur" species and are summarized in Appendix F. Additionally, four Management Indicator Species (MIS), and several species of concern specific to the Chequamegon – Nicolet National Forest (CNNF) are discussed in Chapter 4, Environmental Consequences.

The Biological Evaluation prepared for this environmental analysis also discusses existing biological conditions.

C. Social Factors

1. Public Safety

Existing condition

Public safety is the primary issue driving the need for this snowmobile trail reroute proposed by the Phelps Snowmobile Club. Until 1999 the snowmobile route had been located on a segment of Davies Road (refer to Map #4 in Appendix A) but traffic safety concerns and complaints from residents led the Club to approach the Forest Service for a trail location on National Forest land.

According to the Phelps Snowmobile Club President, the issue behind requesting the trail reroute is safety on Davies Road: the mixing of snowmobile traffic and public highway traffic. The legal limit for snowmobile speed on Davies Road was 20 mph before the trail was routed off of Davies Road and onto private property. According to the Phelps Snowmobile Club, close calls between snowmobiles and automobiles on Davies Road would not have happened if snowmobilers would ride 20 mph on the road as posted. According to the snowmobile club there were close calls on Davies Road between machines [snowmobiles] and autos and autos coming out of driveways.

It should be noted that the Forest Service Law enforcement officer and the DNR have made speed checks in the Davies Road area prior to Davies Road being removed as a snowmobile route.

During the past two winters the Phelps Snowmobile Club, with cooperation from landowners, has relocated the snowmobile trail off of Davies Road and onto private lands north and south of Davies Road. The “existing condition” of public safety is currently acceptable to all concerned parties because the trail location has been removed from Davies Road and Highway 17 which were the sources of all prior complaints of safety.

The “Private Land” issue has now replaced the “Public Safety” issue as being the main reason that the Phelps Snowmobile Club desires to relocate the trail onto National Forest land.

2. Private Land

Existing condition

The current trail location (see Map #5 in Appendix A) utilizes private land to bypass Davies Road, which was the location and cause of the original safety issue. According to the Phelps Snowmobile Club the landowners do not want the trail on their property but have been willing to temporarily accommodate the trail until it can be relocated onto National Forest land. The current trail passes through approximately five different private properties south and north of Davies Road.

Public issues associated with the location of snowmobile trails when it comes to private property owners is inappropriate behavior by a few snowmobilers (such as trespass) and the undesirable nature of having a snowmobile trail on or near private property especially private property that contain homes or cottages.

3. Economic Environment

Existing condition

The affected area lies in eastern Vilas County. The closest economically benefiting community is Phelps, Wisconsin which lies approximately 3 miles southwest of the affected area. Two of the primary sources for income in Vilas County are the wood products industry and the tourism industry. Plentiful lakes, a large number of private vacation properties and private resorts and a large amount of public lands are a draw for many and tourists temporary residents both in the summer for camping, fishing, ice fishing, boating, hiking, etc. and in the fall/winter for hunting, snowmobiling and skiing.

Snowmobiling and snowmobile trails bring winter visitors to northern Wisconsin. Vilas County and the Phelps area certainly benefit from winter snowmobiling recreation and provide financial income to businesses during the winter months. (Anderson 1993; Wisconsin Department of Tourism 2001; Center for Economic Development 1991; Jakes, Pamela J. June 1998).

This analysis will not attempt to present direct and indirect economic benefits attributable to recreation expenditures by snowmobilers in Vilas County or the Phelps area. However it is recognized through surveys that snowmobiling does benefit local communities.

4. Visual Quality

Existing condition

The existing landscape character in the affected area can be described as one of northern hardwood with mixed conifers on flat and gently rolling terrain. A canopy of soft-textured rounded tree forms creating a natural-appearing landscape character blankets the terrain. The tree canopy is broken by wetlands. There are no rockforms in the affected area. Rolling topography and interspersing of conifer trees helps provide landform diversity. Vegetation density and general lack of vistas prevents most views beyond immediate foreground.

The integrity of the natural landscape has been moderately altered by road building and timber harvest. Roads in the affected area range from two-lane gravel Town Roads to one lane unimproved woods roads. Timber harvest activity has primarily been selective timber removal.

The affected area should be considered as having a “moderate scenic integrity” meaning that the valued landscape character appears slightly altered.

Visitors to the affected area (see Recreation/Social existing condition) are not necessarily there just to view scenery as their primary objective but scenery is certainly a secondary benefit. Data from a survey of snowmobilers in Vilas County in the winter of 1992-1993 suggest that of the top two activities in conjunction with snowmobiling “observing nature/scenery” (53%) is secondary in importance behind “traveling to eat/drink” (85%) (Anderson 1992-1993)

Visual Quality Objectives (VQO) and Scenic Integrity Levels (SIL) for the affected area.

<u>Visual Quality Objective and Scenic Integrity Levels</u>	<u>As Viewed From</u>
Partial Retention VQO Moderate SIL	Boot Lake Road (Forest Road 2201)
Partial Retention VQO Moderate SIL	Davies Road (Forest Road 3012) (ref. District VQO Atlas)
Modification VQO Low SIL	General forest area and all other Forest Service roads.

Partial Retention means that resource management activities remain visually subordinate to the characteristic landscape. Activities may only repeat form, line color texture that are common to the characteristic landscape but changes in their qualities of size, amount, intensity, direction, pattern, etc, remain visually subordinate to the characteristic landscape.

Modification means that resource management activities may visually dominate the original characteristic landscape. However, activities of vegetative and land form alteration must borrow from naturally established form, line color or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding or character type. Additional parts of these activities such as structures, roads slash, root wads, etc. must remain visually subordinate to the proposed composition.

Also reference the Eagle River-Florence Ranger District Visual Quality Objective Atlas and the Appendix E of the Nicolet Forest Plan; Visual Quality Objective Determination for the Nicolet National Forest.

Further discussions and descriptions of VQO's can be found in Chapter 4, pages 41-42 of the Nicolet National Forest Land and Resource Management Plan and in Appendix E of the Forest Plan, pages E-1 to E-14

5. Recreation

a. Developed and dispersed recreation.

Existing condition

There are no developed recreation sites such as campgrounds, single campsites or hiking trails within the affected area. Recreation use is entirely dispersed recreation use such as hunting and hiking although there are no maintained trails in the affected area other than the existing snowmobile trail on National Forest lands. The existing snowmobile trail provides a travel corridor for snowmobilers to access other trails in Vilas County.

Dispersed recreation use in the affected area is low during most of the year. The fall hunting season probably brings more people into the affected area than any other time of the year. The affected area could be described as having seasonal fluctuations in visitation from relatively low during the spring and summer to moderate in the fall and low in the winter except for snowmobiling activity along the 1.5 mile of designated snowmobile trail on National Forest land in the affected area. Because the Forest Service woods roads are not snowplowed in the winter there is little vehicle traffic except for the early or late season 4-wheel drive truck traffic. The affected area does not provide any developed "destination" recreation opportunities.

People visiting the National Forest land in the affected area are there for a variety of reasons. These include hunting, driving for pleasure, fire wood gathering. Use of the affected area during fall hunting season is primarily related to grouse hunting and bow and gun deer seasons. Most hunting use is mid-September through Early December. Bear and coyote are other hunting activities but relatively low pressure by comparison.

There are no public boat ramps on Norwood Lake and no developed and maintained Forest Service recreation sites on Norwood Lake. Public access to Norwood Lake would be across National Forest land.

b. Recreation opportunity spectrum (ROS).

Existing condition

Roaded Natural ROS Setting. The affected area is characterized as providing a “roaded natural motorized recreation environment” (ref Nicolet Forest Plan page 94).

In the affected area interaction between individuals recreating is relatively low due to low use and the lack of developed recreation sites. There is little or no interaction between recreationists on National Forest land in the affected area and landowners.

Predominately natural-appearing environments characterize the setting with moderate evidence of the sights and sounds of man.

The primary recreational pursuits occurring in the area could be described as driving for pleasure, snowmobiling, hunting and general nature appreciation. Roaded Natural Opportunity Spectrum is defined In part as “Mostly natural appearing environment as viewed from sensitive roads and trails. ”Access and travel is conventional motorized including sedan, trailers, RVs and some motor homes. “Self reliance on outdoor skill of only moderate importance “Little challenge and risk.”

Definitions, standards and guidelines used to describe the recreational experiences, opportunities and settings in the “roaded natural” recreation environment clearly provide allowances to accommodate snowmobile trails but also accommodate non-motorized activity by providing the latitude to retain road closures. Management has discretion to provide one or the other or both in the “roaded natural” recreation opportunity spectrum. Refer to Forest Service publications “ROS Users Guide” and “ROS Users Guide–Eastern Region Supplement, September 1985”.

Recreation experiences in the “roaded natural” setting allow affiliation with groups or isolation from sights and sounds of man at different times and places.

Management goals include maintaining a predominately natural environment and providing motorized or non-motorized recreation activities in a developed or undeveloped setting.

Rural ROS Setting. Contrasted to the ROS of “roaded natural” recreation environment of the National Forest land where the snowmobile project is proposed is the adjacent area of private lands north and south of Davies Road where the snowmobile trail is currently located. This area is entirely private lands and is best described as a rural setting characterized as having a landscape of forested, farmed and/or developed landscape where sights and sounds of human activity and developments such as paved and graveled roads, farm fields, homes and cabins, powerlines, and traffic sounds, are more prevalent than in the “roaded natural” environment on the adjacent National Forest land.

c. Solitude and sounds.

Existing condition

Currently, the affected area is relatively free of sights and sounds of human activity except for existing roads. Fall hunting season would probably be one time of the year when the amount of activity in the forest would be greatest. During the winter the amount of sights and sounds would be even less except for distance sound of vehicle traffic or perhaps distance sounds of snowmobile traffic from the existing snowmobile trail a mile or less to the south. Because Forest Road 2563A is closed to traffic and because the Forest Service roads on the Ottawa National Forest to the north are closed, some of the affected area currently offers a small scale opportunity to be in a non-motorized environment mostly free of sights and sounds of human activity.

6. Heritage Resources

Existing condition

Forest Service cultural resource surveys were conducted in the projects area in 1984 and 1988. Additionally, in October 2000 a cultural resource field review was conducted specifically for the proposed trails locations on the Nicolet National Forest.

The results of the survey indicate that no cultural resource sites exist along the proposed trail route. A “Cultural Resource Reconnaissance Report” was prepared and the State Historical Preservation Office reviewed the report.

A cultural resource survey was not conducted on the Ottawa National Forest because those alternatives located on the Ottawa were dropped from further consideration once it was determined that the proposal to route the trail through the Ottawa National Forest was not consistent with the Ottawa National Forest Plan.

7. Access: Roads and Trails

Existing condition

This area has been fairly well roaded in the past. Forest Road 2563 (about one mile long) penetrates the affected area all the way to the private property on Norwood Lake. This road is open to public traffic and provides access to the private landowner on the south side of Norwood Lake. Forest Road 2563A (about 1.3 mile) further bisects the affected area. This is a gated road and is closed to all public motor vehicle traffic. The Town of Phelps has roads within or adjacent to the affected area. Boot Lake Road (Forest Road 2201) and Davies Road (Forest Road 3012) are two of these. Other existing roads are shown on Map #11 in Appendix A.

Traditional access by the public and by the Forest Service has been for timber harvest, hunting, walking, firewood gathering and snowmobile trail use. Existing Forest Service roads in the affected area would be used in the future for timber sale access. The North Triangle Timber Sale will be sold in May of 2002 and will use the Boot Lake Road (Forest Road 2201) and Forest Road 2563 for access. Any existing Forest Service roads used for a snowmobile route would probably be used in the future for hauling timber. Timber hauling on roads used as snowmobile routes would not occur on weekends during the winter.

As previously discussed in the recreation section, the Recreation Opportunity Spectrum for the affected area is "Roaded Natural". Access into the affected area can be made by motor vehicle on roads that are open and by walking.

There are 1.5 miles of existing snowmobile trail on National Forest land in the affected area. Most of this length is on existing Forest Service roads. This trail accesses other sections of trails across Vilas County and Wisconsin. National Forest land in the affected area is not a "destination" recreation site for snowmobilers. The trail provides a means for snowmobilers to ride for pleasure and a means to access destination sites for socializing such as restaurants in communities like Phelps and recreation opportunities such as ice fishing on North Twin Lake. Refer to Map #2 in Appendix A.

This snowmobile trail is also part of the "100 mile Circle Route" (Phelps to Iron River, MI to Watersmeet, MI to Land O' Lakes, WI to Phelps) mentioned on the official Vilas County Snowmobile Map. Refer to Map #2 in Appendix A.

There are about 2.4 miles of existing snowmobile trail on non-National Forest lands. Refer to map #5 in Appendix A. The unshaded portions of the maps are non-National Forest lands (generally private lands). This is the segment of trail that has raised the safety and private land issues discussed in Chapter 2.

The Vilas County Forest Administrator for the State-funded trails in Vilas County sets official snowmobile trail opening and closing dates. The opening date for snowmobile trails is depended on snow conditions after the State's two-week gun

deer hunt that ends the first week in December. The Vilas County Forest Administrator also sets snowmobile trail closing dates that is dependant on snow cover conditions. Snowmobile trails have usually been officially closed in Vilas County at the end of March.

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

- A. Physical Factors
 - 1. Soils
 - 2. Water Resources

- B. Biological Factors
 - 1. Vegetative Resources
 - 2. Wildlife and Fish

- C. Social Factors
 - 1. Public Safety
 - 2. Private Lands
 - 3. Economic Environment
 - 4. Visual Quality
 - 5. Recreation
 - 6. Heritage Resources
 - 7. Access; Roads and Trails

Introduction

This section describes the potential environmental effects of implementing the “No Action” alternative (Alternative 1) and the “Proposed Action (Alternative 2). It provides the analytical basis for comparison of alternatives by describing the probable effects of each alternative on environmental resources. The resources described are related to the issues of most concern to the public and Forest Service managers.

This analysis gives the Forest Service deciding officer sufficient information to select an alternative. It also provides the analysis for the deciding officer to determine if there is a need to prepare an Environmental Impact Statement (E.I.S).

A comprehensive discussion of irreversible and irretrievable commitment of resources, unavoidable adverse effects, and other effects of forest management activities throughout the Nicolet National Forest is provided in Chapter 4 of the Forest Plan Final E.I.S.

None of the alternatives are expected to have major effects on heritage resources, consumers, civil rights, minority groups or women.

Mitigation measures that would minimize or reduce potential environmental effects for each alternative have been described in Chapter 2 pages 26-33.

A decision to select Alternative 2 would include the implementation of Nicolet National Forest Plan Standards and Guidelines and applicable Wisconsin Best Management Practices ("Wisconsin's Forestry Best Management Practices for Water Quality," publication number FR093, Wisconsin Department of Natural Resources, 1995).

A. Physical Factors

1. Soils

Introduction

The effects of the alternatives were assessed on a site-specific basis to ensure that inherent long-term productivity of the land would be maintained and that soils would not be irreversibly damaged.

Direct and Indirect Effects

Alternative 1

No new snowmobile trails would be designated on National Forest Land, either by utilizing existing roads or by constructing new trails. There would be no change in the current soil condition. There would not be any project related negative impacts to soil resources because no ground disturbing activities would take place under this alternative. There are no known, existing soil resource conditions (erosion, rutting) that would require rehabilitation in this no-action alternative.

Alternative 2

Alternative 2 requires some brushing and leveling of the ground surface to clear existing closed roads of fallen trees and limbs or prune back branches so that the road can be used as a designated snowmobile route.

Alternative 2 also requires new trail construction in which trees and brush in a 10-12 foot wide corridor would be cut and the ground leveled as needed.

Adherence to the mitigation measures listed in Chapter 2 for Alternative 2 would eliminate or minimize potential for soil compaction, rutting, displacement and surface erosion that could occur with the use of heavy equipment to level the soil surface where new trail is constructed.

There would be a total of 0.7 mile of new trail construction in two locations of this alternative. Refer to Map #7 Appendix A. New trail construction would occur in the following soils with the approximate amount of new trail construction indicated.

Soil Type 21A Champion silt loam of 1-6 percent slope. ~0.3 miles.
Soil Type 13 Monico silt loam soil type of 0-1 percent slope. ~0.2 miles.
Soil Type 24 Seelyeville Muck soil type of 0-1 percent slope. ~0.2 miles.

One example of Seelyeville Muck surface vegetation and Management Area 6.3/9.1 is shown in Appendix I, photo #13. No heavy equipment is allowed on this soil type to construct the trail. Refer to mitigation measures in Chapter 2.

The new segments of trail needing clearing and leveling would cross Champion, Monico and Seelyeville soils. Where there is no existing road to use as a snowmobile trail route trail construction would consist of cutting trees and brush and pruning back branches to clear a 10-12 foot wide corridor and then leveling the ground as needed.

Seelyeville soils are wet year round and would only support construction equipment operations during frozen ground conditions. Operation of heavy equipment for the purposes of trail construction on this soil would not be allowed.

There would be no long-term detrimental soil disturbance effects from compaction, rutting, erosion or displacement on project sites or adjacent areas, when mitigation measures are followed for alternative 2. Refer to Chapter 2 for mitigation measures associated with Alternative 2.

Short-term effects of leveling the ground surface where needed to provide a level trail surface would be that the soil would be subject to erosion forces from rainfall and snowmelt. Natural revegetation and implementation of mitigation measures would minimize erosion. Newly constructed segments of trail would be open to snowmobiles and trail grooming equipment and closed with gates during the non-snowmobile season.

Cumulative Effects

Alternative 1

There would be no cumulative effects to soils if the current snowmobile trail remained in its present location on National Forest land (No Action Alternative).

Alternative 2

Past Actions. The snowmobile trail route being considered within the National Forest is surrounded by National Forest land and is adjacent to one private landowner. The proposed snowmobile trail would not have any impacts to the soil resource on any adjacent private lands. Past use on most of these existing roads where the trail would be located has been for access for Forest Service timber sales including hauling timber products from National Forest land. No long-term

soil disturbance effects have been identified on National Forest or privately owned property.

Present Actions.

There would not be any project related long-term detrimental impacts to the soil resource. These areas would revegetate naturally within one growing season on these moist, fertile, silt loam soils.

Mitigation measures listed in Chapter 2 would minimize potential effects to the soil resource.

Use of trails by snowmobiles would be during winter conditions, which would have no long-term soil disturbance effects from rutting, compaction, erosion, displacement or nutrient removal.

Future Actions.

Future long-term use of the designated trail would be snowmobile traffic and trail maintenance activities by the Snowmobile Club. Use of trails by snowmobiles would be during winter conditions, which would have no long-term soil disturbance effects from rutting, compaction, erosion, displacement or nutrient removal.

If this trail were placed on National Forest land there would be no need in the future to expand the trail system in the affected area. However, there has been mention by the Phelps Snowmobile Club of possibly connecting the Michigan snowmobile trail system with the Phelps trail system in the area of Boot Lake area but that is speculative at present and would be a northward trail perhaps using Boot Lake Road.

The effects of the proposed action, when added to the effects of the past practices and events, current practices and future proposed actions, would not be expected to result in any appreciable adverse cumulative effects to the quality of the soil resource.

2. Water Resources

Direct and Indirect Effects

Alternative 1

There would not be any changes to water resources on National Forest land if the trail is not relocated to National Forest lands.

Alternative 2

A proposed segment of new snowmobile trail construction would cross 0.2 mile of 100 acres of contiguous wetland mapped as Seelyeville Muck soil type (wetland). Approximately 34 acres of this wetland is on National Forest land and 66 acres is on private land to the south. The wetland drains from a north to south direction.

Operation of snowmobiles on the Seelyeville soil would occur when there is enough snow to open the entire trail system. This soil is black muck with a few inches of peat moss at the surface, which would readily freeze when the snowpack is compacted by snow machine traffic. Snowmobiles running on the packed snow and frozen soil would promote deeper and more consistent frozen conditions, having limited long-term effects to the soil resource and hydrology of this organic soil. The soil under the trail would remain frozen longer during spring thaw and would impede initial infiltration of melted snow. There is no defined drainage where this section of trail is located and no detrimental effects to the overall water flow through this soil are anticipated. The bulk density of this soil is in the range of 0.10-0.25 g/cc and operation of snowmobiles over compacted snow and frozen ground would not adversely increase the bulk density of Seelyeville soil in the project area.

There would be no long-term detrimental soil disturbance effects from compaction, rutting, erosion or displacement on project sites or adjacent areas, when mitigation measures are followed for alternative 2.

These wetland areas are in Management Area 6.3 and 9.1. Management objectives of 6.3 and 6.1 are similar. Refer to Chapter 1 page 5 of this document.

The proposed action does not cross any streams.

Trail construction in the wetland (Seelyeville soil type) would consist of hand clearing and hand leveling. Because there is no existing trail or road to use as a snowmobile trail route through the wetland, trail clearing would consist of cutting trees and brush and pruning back branches to clear a minimum width corridor needed for a State-Funded snowmobile trail (about 10 feet wide). No heavy equipment would be used in the Seelyeville soil type.

A check of the District's trail atlas shows that of the approximate 140 miles of snowmobile trail on National Forest land on the Eagle River-Florence Ranger District approximately two miles crosses wetlands. The proposed action would construct approximately 0.2 mile of new trail across wetland.

Cumulative Effects

Alternative 1

The current condition of water resources and wetlands would not change. No opportunities for watershed rehabilitation would be forgone by selecting Alternative 1.

Alternative 2

Past Actions. The snowmobile trail route being considered within the National Forest is surrounded by other National Forest land and would not have any impacts to the water resource on any adjacent private lands. Past activity on most of these trail relocation sites has been use as woods roads for driving vehicles and hauling wood products associated with Forest Service timber sales. No appreciable long-term effects have been identified on National Forest or privately owned land in the affected area from past activities and events.

Present Actions. Actions proposed include removing fallen woody debris from existing roads and pruning encroaching vegetation where it has grown into the existing roads so that snowmobiles and grooming equipment can use the existing road as a snowmobile trail.

Where new trail construction is proposed in non-wetland areas, vegetation would be cleared in a 12-foot wide corridor and the ground leveled with heavy equipment where needed. Where new trail construction is proposed in wetland areas, vegetation would be cleared by hand to the minimum width for a State-Funded snowmobile trail. No heavy equipment would be allowed in the wetland. If spot leveling were needed it would be done by hand. This activity would be implemented with site-specific measures taken to mitigate potential adverse effects to the soil and water resources.

Future Actions. Once the proposed trail is established, similar snowmobile trail activities in the area are not anticipated.

The incremental impacts of past, present, and future management activities would have no appreciable cumulative effects, nor would they impair long-term water quality.

No changes would occur to water quality and minimal effects would occur to wetlands if the listed mitigation measures are employed when locating and constructing trails through the wetland Seelyeville soil type. Other effects to the Seelyeville Muck soil type/wetland are discussed on the next pages. Implementing mitigation measures listed in Chapter 2 would adequately protect water quality. Protection and mitigation measures would be employed where there are future activities adjacent to affected area streams or wetlands. The cumulative effects of past practices, proposed activities, and reasonably foreseeable future actions are not appreciable and would not adversely affect water quality or the long-term productivity of wetlands within the affected area.

B. Biological Factors

1. Vegetative Resources

Direct and Indirect Effects

Alternative 1

This alternative does not propose any activity within the affected area. The existing snowmobile trail on National Forest land would continue to be maintained and open to snowmobiling from December through March as snow conditions permit.

This alternative does not propose any change in trail use. Natural succession would permit the canopy over road and trail corridors to eventually close. This would lead to changes in understory flora from early successional species to shade tolerant late successional species.

Alternative 2

Alternative 2 would construct a total of 0.7 miles of new snowmobile trail. There would be one segment of new construction of 0.2 mile and one segment of new construction of 0.5 mile. Of the 0.5-mile length of new construction approximately 0.2 mile would be across a wetland soil and vegetation type.

The wetland soil and vegetation type is described as management area prescription 6.3 and 9.1. Management objectives of 6.3 and 6.1 are similar. Refer to Chapter 1. The wetland soil type in the affected area is classified as Seelyeville Muck soil.

Constructing new snowmobile trail would increase the mileage of trail corridors in the affected area by 0.7 miles. This would contribute to fragmentation of a large stand of upland hardwoods (Management area 2.1) a mixed lowland conifer stand (Management area 6.3 and 6.1). It should be noted again that this area has been fairly well roaded in the past. Forest Road 2563 (about one mile long) penetrates the affected area all the way to the private property on Norwood Lake. This road is open to public traffic and provides access to the private landowner on the south side of Norwood Lake. Forest Road 2563A (about 1.3 mile) further bisects the affected area. This is a gated road and is closed to all public motor vehicle traffic. Other existing roads are shown on Map #11 in the Appendix A. The Town of Phelps also has roads within or adjacent to the affected area. Boot Lake Road (Forest Road 2201) and Davies Road (Forest Road 3012) are two of these.

If alternative 2 is implemented then there would be a corresponding reduction of snowmobile travel corridors in the affected area because 1.5 mile of the existing snowmobile trail on National Forest land route would no longer be needed as a snowmobile route.

However the existing corridor would remain because it is a Forest Service road. Most of the road would continue to be used for forest management access. The corridor would remain as a contributing factor to fragmentation. A small part of this 1.5-mile segment is not a Forest Service road and would be allowed to revegetate naturally. The unneeded portion of the existing trail is an old railroad bed that follows the edge of a black spruce swamp. Eventually this trail would naturally close from succession but would continue to provide habitat for non-native invasive species for a considerable amount of time. Refer to Map # 7 in Appendix A.

In the near term, the removal of vegetation, opening of the canopy, and some changes of conditions of the forest floor would cause fragmentation. These changes include disturbance or destruction of ground-layer vegetation, and possible changes in soil and hydrologic functions due to compaction and the deeper level of freeze, especially in years of minimal snow cover. The removal of vegetation, canopy, and soil disturbance would provide habitat for early successional species, including invasive species. Over time, (5-10 years) the canopy should close over, eliminating habitat for shade intolerant species. The other causes of fragmentation mentioned above would remain and continue to disrupt the movement of species and processes across the local landscape. Trail use would continue to be a vector for the movement of invasive species.

Sandy Verry Research Forester, North Central Research Station, Grand Rapids MN provided a generalized scenario of possible causes and effects to consider if snowmobile traffic is routed through wetlands. A more site-specific application of effects to wetlands is provided in Part 2 Water Resources.

Within wetland portions of the trail, winter traffic could cause changes in vegetation and water flow. Under ideal conditions, 6 inches of frozen soil or plenty of snow cover, snowmobile impacts would be negligible. However, during winters of minimal snow and incomplete freezing, snowmobiles would cause soil compaction to wetland soils, and promote the mixing of soils from the surface and soils a foot or more deeper. This would cause a decrease in the soil pore space, limiting the flow of water across the wetland, and causing it to pool up on the upstream side of the trail. This pooling of water would kill off the mosses and ericaceous shrubs, creating a wider corridor of impact (Verry).

Cumulative Effects

Alternative 1

Past Actions

Second growth forests are still regenerating from the catastrophic disturbances of timber cutting and slash fires of the late 1800s and early 1900s (Mladenoff and Pastor 1993). Timber management since that time has produced a simplified landscape structure with much smaller patches of interior habitat and a greater number of patches of early successional species compared with pre-European settlement forests. Road and trail construction have also contributed to the fragmentation of patches. Stand level changes include simplification in forest structure and age class, and changes in species composition (Mladenoff and Pastor 1993). The most recent past actions in the project area include the Sugar Maple-Boot (1990s) and Military Hill (1980s) timber sales.

Roads and trails provide corridors for non-native species to move in. Refer to Chapter 5, page 78, regarding monitoring for invasive weed species.

Present Actions

Presently, no federally initiated projects including timber sales or road construction are occurring within this area.

Future Actions

The location of the existing snowmobile trail on National Forest land would remain unchanged under Alternative 1. Continued use of the trail and road would maintain the fragmentation of the existing patches by creating a corridor of open, disturbed habitat, including soil disturbance.

The Forest Service "North Triangle" timber sale will be sold in May of 2002. This is a red pine thinning project and will occur primarily on the west side of Boot Lake Road in the north side of Section 30. The timber sale purchaser would have 3-5 years to complete the timber sale contract.

Vegetation growth could naturally close some existing closed roads to vehicle traffic over time if they are not used as a snowmobile trail.

Alternative 2

Future actions include the maintenance, grooming, and use of the snowmobile trail corridor. Potential future actions in the project area include timber harvest, road maintenance and improvements. Cumulatively, these actions would maintain a fragmented landscape.

Alternative 2 would construct a total of 0.7 miles of new snowmobile trail: one segment of 0.2 mile and one segment of 0.5 mile. The trail would continue the fragmentation of the 200+ acre hardwood patch, though any resulting canopy

opening would be expected to close over within 5-10 years. Fragmentation due to changes in ground-layer vegetation due to deep-freezing of the soil would continue for the life of the trail. Effects in the wetlands portion of the trail would include an increase solar penetration resulting from the more open canopy and changes in ground layer vegetation. The changes in canopy would be slight and should recover within 5-15 years. Changes in ground layer vegetation would continue and worsen during warm winters, for the life of the trail.

2. Wildlife; Including Management Indicator Species and Federally Endangered, Threatened and Sensitive Animal and Plant Species

- a. Wildlife
- b. Management Indicator Species
- c. Federally Endangered, Threatened, and Proposed Species (Table 1. Appendices F & G)
- d. Regional Forester's Sensitive Species (Table 2. Appendices F & G)
- e. Other Sensitive Species Not Addressed in the Biological Evaluation

a. Wildlife

Introduction

General effects of management activities affecting the wildlife resources are described in the Nicolet Forest Plan FEIS on pages 4-107 and 4-108; and riparian area effects are described on page 4-106. Protection of riparian areas, streams, lakes and wetlands follow Wisconsin's Forestry Best Management Practices for Water Quality guidelines, otherwise known as "BMP's" (Wisconsin Department of Natural Resources, 1995).

Direct and Indirect Effects

Alternative 1

Under this alternative, the trail would remain in its present location. Effects on the fisheries resource would not occur, since there are no lakes or stream crossings affected by the project. In the short term, effects on wildlife would remain the same, since the trail has been in place for more than 10 years. In the long term, interior sensitive wildlife would likely continue to avoid this area, while species that favor edge would tend to continue to inhabit this area.

Alternative 2

If this alternative were selected, then approximately 1.5 miles of trail identified under Alternative 1 would be closed to snowmobile traffic reducing winter disturbance effects in that location but that 1.5 mile would be replaced by the

disturbance caused by the new snowmobile trail route north of the current trail location.

The total amount of edge would include the 0.7 miles of new trail construction plus the 1.5 miles of already existing edge from the trail that would be closed to snowmobile traffic. Habitat for edge sensitive wildlife, especially some of the neotropical migratory birds, could deteriorate with the increased fragmentation of mature hardwood and conifer forest. This would be most evident in habitat in section 21 of the affected area (stands 1-6 of compartment 148), which is mature northern hardwood forest.

Potential disturbance and edge effects would be greatest in these stands since the entire length of the proposed trail route would occur in an area previously closed to motorized travel with the exception of intermittent (gate is opened every 8-10 years or so) timber sale harvest activities. This area also adjoins an extensive area managed as a "Remote Habitat Area" on the Ottawa National Forest in Michigan (reference Ottawa National Forest Plan). The "Remote Habitat Area" is managed for disturbance sensitive species such as eastern timber wolf, possibly Canadian lynx, and American "pine" marten.

The direct effects on wildlife could include; possible habitat avoidance since trail use by snowmobilers would cause noise disturbance and habitat alteration; soil and snow compaction disrupting below snow prey movement, especially rodents; and loss or fragmenting of dense nesting and hiding cover with the construction of new snowmobile trail through a mix of habitats including black spruce, balsam fir and alder wetlands.

Construction of the new snowmobile trail would connect existing Forest Service roads. This would increase the possibility that some people will use this new connecting travel corridor during the non-snowmobile season for hiking and, at worse, illegal ATV riding by going around gates that would close these roads and trails. This would result in disturbance of species that prefer areas of low human disturbance such as bobcat, black bear, and woodland raptors in addition to the species identified above.

There is no reliable data to help quantify the amount of illegal ATV use occurring on the Eagle River-Florence Ranger District. However the Ranger District has experienced a noticeable increase in illegal ATV use during the past five years especially during hunting season. It is not unreasonable to expect that illegal ATV use could occur in the affected area at some time in the future.

Although roads and trails may also have a positive effect for some forest users in that there may be increased wildlife viewing opportunities, they also provide access points for human use and can have negative effects on species that prefer areas of low human disturbance such as bobcat, black bear, and woodland raptors in addition to the species identified above. The greatest

potential for impact on these species would be during denning and nesting season.

The long-term effects of the route proposed under this alternative would likely remain the same or possibly deteriorate further with regard to disturbance. Disturbance could increase, since over time, more individuals would become familiar with the new through route, possibly using the route for mountain biking, or illegal ATV or off-road vehicle use.

There are no lakes or streams affected by the project. There would be no effects on the fisheries resource.

b. Management Indicator Species

Introduction

The four MIS selected represent a suite of species that have similar habitat needs. These species were selected because some aspect of their life cycle could potentially be affected by the proposed project. Bobcats, for example, are very secretive and prefer to reside in areas of low human disturbance. Bobcats are also highly associated with lowland conifer forest where they hunt for snowshoe hare, their primary prey. The common raven and barred owl represent mature mixed hardwood and conifer forest, and would be susceptible to late winter disturbance. Ravens typically begin nesting during February and March, and barred owls not long afterward. The white-tailed deer represents the entire forest and is analyzed in most projects because of its economic importance and because it represents early successional forest and edge habitat.

Direct and Indirect Effects

Alternative 1

Over the short term, no major population shifts are anticipated for existing white-tailed deer populations since little change in existing habitat conditions would occur. Deer are known to forage along the existing snowmobile trail on National Forest land, thus, periodic trail brushing would help to maintain edge conditions favorable for deer. The long-term effect on white-tailed deer would not change significantly because of the way the Wisconsin Department of Natural Resources (WDNR) manages this species. In general, the WDNR manages deer in this portion of the forest at an over winter goal of about 20 deer per square mile of deer range. If deer numbers exceed this goal, harvest pressure is increased by various hunting methods, and if numbers decline to below goal, harvest efforts are relaxed.

Habitat through which the existing snowmobile trail on National Forest land passes is considered marginally suitable for barred owl, and common raven. These MIS typically prefer more mature hardwood or mixed hardwood conifer

forest. The existing snowmobile trail on National Forest land, if it were to continue to be used as the primary trail, would have less impact on these MIS since habitat is less than ideal. Also, since the trail has been in place for some time, these MIS would already have experienced effects associated with the trail and trail users. The Nicolet population estimates for barred owl, according to breeding bird survey data, indicate low numbers of observations, but the June survey methods used for daylight singing birds do not adequately sample this late-spring/early winter nester. Late winter and early spring surveys conducted across the Nicolet forest for the past several years have shown the population to be fairly common, but fluctuating (see Appendix E for additional population data). The population of common raven on the Nicolet as well as statewide appears to be stable to increasing. Field surveys conducted in and near the affected area July 9th and 10th, 2001 found neither species, but again, these MIS are early season breeders, thus it would be likely that only foraging birds would have been observed at this time anyway.

Potential direct effects on bobcat under this alternative would primarily include avoidance of the trail area because of noise disturbance generated by snowmobile use. Foraging habitat would also be indirectly affected, since prey may avoid this habitat as well. The trail identified under this alternative has been in use across federal lands since the early to mid 1980's, thus bobcat occurring in this area would likely have already modified their territories and the effects generated by the trail would have already occurred. Use of the trail area would likely return for all species, primarily for foraging, during the period when the snowmobile season is closed.

With regard to these four MIS, the long and short term effects would not change under this alternative if the trail continues to be utilized for snowmobiling activities.

Alternative 2

The potential effects on white-tailed deer populations would be slight, even with the increase in trail length with the construction of 0.7 miles of new trail. The direct effect would be increased foraging habitat since new early successional habitat would be created and maintained with the new trail construction.

Other direct effects would include establishment of an edge corridor through mature hardwood and conifer forest habitat where there is presently a low density of such edges. This would be most evident in habitat in section 21 of the affected area (stands 1-6 of compartment 148), which is mature northern hardwood forest.

Establishment a permanently maintained trail corridor would provide browse vegetation for white-tailed deer. The long-term effect on the white-tailed deer population would not change significantly because of the way the Wisconsin

Department of Natural Resources manages this species, as described under Alternative 1 above.

The effects of the establishment and maintenance of a new trail through the area described above, on barred owl, common raven and bobcat are described below:

Potential direct effects from winter snowmobile trail use on barred owl, common raven and bobcat, would include disturbance of denning, nesting and foraging habitat during the time the trail is used, which could cause these animals to avoid this area. Noise disturbance and soil or snow compaction could also cause a disruption or loss of habitat for the primary prey species utilized by these MIS. Indirect effects could potentially include increased year-round use because a new travel corridor would be established, potentially increasing human presence and disturbance of the area during the snow-free season. The proposed new snowmobile route would be marked with snowmobile trail signing thus making the route obvious to the general public even in summer. Disturbances could include presence of legitimate non-motorized activities such as walking but could also include infrequent illegal ATV use.

A potential benefit for these MIS would include additional edge habitat that could favor prey species, especially if a forbs and shrub layer develops along the trail edge. The short term effects of trail construction would likely occur during the snow-free season, and would not likely affect these MIS, with the possible exception of bobcat, but the disturbance period would be brief. Long-term effects would again include loss of potential nesting, denning and foraging habitat if the various MIS avoid the trail area every winter.

Cumulative Effects

Past Actions

Generally, timber harvesting and occasional fires in the early 1900's removed a high proportion of the existing forest cover. Since that time, Forest Service management activities such as timber harvesting, site preparation, wildlife opening construction, wildlife opening improvement, prescribed fire, stream improvement, road closure and various levels of road construction and reconstruction have occurred in the general area during the past 20 years. On nearby private land, past practices have included timber harvesting, land clearing for agricultural crop production, and the development of permanent residences and summer homes.

Disturbances caused by past practices could have resulted in cumulative effects on wildlife resources and habitat. Effects impacting wildlife and fisheries that can still be observed on the landscape include: stream and wetland sedimentation, loss of, or greatly diminished old growth habitat, introduction of exotic plants and

animals, and introduction of non native diseases, as well as the loss of native plants and animals. The effect of these impacts on wildlife and fish has resulted in the decline of some key habitat components that typically could have provided food, cover, or specific habitat niches. Other effects of past management activities would include animal and plant populations existing today at disproportionate levels as compared to earlier times. Various changes in forest wildlife can be seen in the extirpation then reintroduction of the American pine marten and fisher, and the presently reestablishing timber wolf.

Some of the impacts described above are not and have not been entirely associated with Forest Service management practices, and in fact, the Forest Service obtained most of the federal lands following the early logging era at which time most of the lands were already cut and burned over, with much of the resulting sedimentation damage already incurred.

Past actions specific to the affected area include two timber sales, Boot and Military Hill Sales, which closed in the late 1990's and 1980's respectively. Other activities probably included road construction or reconstruction.

Present Actions

The short-term effects previously discussed for each project-related MIS could occur under each of the alternatives if that particular alternative were implemented. Below is a discussion of MIS population trends as they relate to the respective alternative with consideration given to other activities presently ongoing across the Eagle River-Florence District.

Presently, no federally initiated projects including timber sales or road construction are occurring within this area.

Alternative 1 would leave the trail in its existing location. The effects would be as described above. Potential disturbance to each MIS would not improve unless the amount of disturbance was reduced along the trail route. Populations of species associated with the represented MIS would likely remain static with respect to this Alternative.

Under Alternative 2, construction of a new snowmobile trail would generate changes on the landscape that could affect both interior and edge associated wildlife. These effects would include noise disturbance and habitat alteration. Cumulatively, edge effects would continue to occur along the abandoned trail route because much of the abandoned route is still part of the Forest Service Road system, while new edge conditions begin to occur along the new route. Although the abandoned route would not be used as a snowmobile route, the trail corridor would remain well into the future, and likely receive some use by foot travel, mountain bikes, or legal or illegal motorized use.

Cumulatively, there would be a loss of less disturbed habitat on the forest, since the new route passes through an area closed to motorized travel. There would be a potential loss of habitat (assuming these species avoid this habitat) for such species as bobcat, American marten, barred owl, woodland raptors, timber wolf and other edge or disturbance sensitive species. The potential effects of habitat loss on wildlife (there would be no effects on the fisheries resource since no lakes or streams occur in the trail area) would be minimal with respect to the number of individual animals displaced, but, none-the-less, about 360 acres of potential high quality habitat would be reduced.

Future Actions

Cumulative future effects under Alternative 1 would include continued and probably increasing trail use and would again consist mostly of noise disturbance and the maintenance of the trail corridor which will continue to provide edge conditions. The effects on the various wildlife species would be similar to those already described above. These effects would continue to impact edge sensitive wildlife into the future for as long as the trail is used. Similarly, edge-favoring wildlife would benefit from the edge conditions as the corridor remains. If snowmobile trail routes are increased across the forest, as proposed under Alternative 2, then edge conditions and disturbance associated with trail use will increase as well. As the number areas of remote habitat decreases, through fragmentation by either roads or trails or other forms of development, it would be expected that wildlife associated with interior or remote habitat would also be expected to decline. It is expected that recreational use of forested areas, especially forested public lands, will continue to increase over time.

Federally Endangered, Threatened, and Proposed Species for Listing, and Regional Forester's Sensitive Species The effects of the Proposed Federal Action and its alternatives on Federally Endangered, Threatened, and Proposed Species and the Regional Forester's Sensitive Species are presented in a separate document entitled "Phelps Snowmobile Trail Project Biological Evaluation". Appendix F, titled "Species Considered and Likely to Occur", provides a list of the species considered in this evaluation and includes their local and global status. This document also considers species in which habitat may be suitable, although the individual species may or may not have been located either on the forest or within the target habitat. Appendix G, titled "Species Determination of Effects", describes potential effects of the project on all species thought to utilize habitat within or near the affected area. The biological evaluation is not included with this document because it may contain site-specific location information that if made available to the casual forest user, could result in adverse effects on listed species or their habitats. Untimely nest or den site disturbance could result in nest/den abandonment, relocation, or reproductive failure. This document is available upon request.

Data used to evaluate potential project impacts on Federally Listed Species and the Regional Forester's Sensitive Species were derived from district records and survey data, the U.S. Fish and Wildlife Service, the Wisconsin Department of Natural Resources Natural Heritage Inventory; available research literature; and personal communication with relevant specialists. A summary of the findings of the Biological Evaluations is described below.

c. Federally Endangered Threatened and Proposed Species
(Appendices F & G):

Habitat within the Phelps Snowmobile Trail Project is considered suitable for both gray wolf and bald eagle. Gray wolves are known to occur on the forest, and pack activity is suspected near some areas both north of the affected area, in Michigan, and well south of the affected area near the Headwaters Wilderness. Limiting factors for gray wolf include habitat free of, or with very minimal human disturbance, and an abundance of prey species, especially white-tailed deer. A portion of the affected area, specifically habitat in section 21 (stands 1-6 of compartment 148) includes a small winter deer yarding area. Bisecting this area with a snowmobile trail could potentially impact wolves preying on deer in this area, should they occur here.

Bald eagle are not known to utilize the area for nesting, and no lake or stream habitat occurs along or within 0.25 miles of the existing or proposed trail routes identified in Alternatives 1 and 2. Limiting factors for eagle include large, usually super-canopy trees near lakes and large rivers, and lakes or rivers with adequate fish forage.

Recent sightings in northern Wisconsin of Kirtland's warbler, has prompted the U.S. Fish and Wildlife Service to suggest that Kirtland's warbler be considered in project analysis as well, but no habitat occurs in or near the trail routes suitable for this species, and this species has never been observed on the forest, and only rarely outside of lower Michigan. Limiting factors for Kirtland's warbler include vast acreages of young jack pine, generally 5 to 15 ft. tall with branches spreading along the ground.

The Canadian lynx is another species identified by the U.S. Fish and Wildlife Service as a species to consider in the project evaluation, but none have been reported in or near the affected area. Limiting factors for lynx include ample acreage of cool, moist, boreal forest, ample abundance of snowshoe hare and snow depths sufficient to provide lynx with an advantage over the less buoyant bobcat and coyote (Ruggiero, 1999). Although a limited amount of the vegetative habitat may be suitable for lynx, snow depth conditions may not be. This project was specifically reviewed by the East Lansing office of the Department of Interior, Fish and Wildlife Service for potential impacts to Canada lynx or lynx habitat occurring in Michigan, and in a letter dated May 19, 2000, they concur that "Canada lynx are not present in Michigan". Surveys conducted in both Michigan

and Wisconsin during fall 1999, 2000, and 2001 specifically for lynx determined no lynx to be present. The 2001 results are only preliminary, and would not be final until late spring 2002.

For each alternative, including direct, indirect and cumulative effects, the results of the Biological Evaluation for the Phelps Snowmobile Trail Project has determined a finding of "No Effect" on the gray wolf, bald eagle and Kirtland's warbler and the other federally listed species identified in Appendix G.

d. Regional Forester's Sensitive Species (Appendices F & G).

Habitat within the Phelps Snowmobile Trail Project is considered suitable for northern goshawk, red-shouldered hawk, black-backed woodpecker, goblin fern (*Botrychium mormo*), blunt-lobed grape fern (*Botrychium oneidense*), northern wild comfrey (*Cynoglossum virginianum* var. *boreale*), spreading woodfern (*Dryopteris expansa*), ginseng (*Panax quinquefolius*), and American elm (*Ulmus americana*), but field surveys conducted during 1999, 2000, and 2001 have not located any of these species as occurring in or near the affected area.

For each alternative, considering direct, indirect, and potential cumulative effects, the results of the Biological Evaluation for the Phelps Snowmobile Trail Project has determined a finding of "May impact individuals but not likely to cause a trend to federal listing or loss of viability" for northern goshawk, red-shouldered hawk, black-backed woodpecker, goblin fern (*Botrychium mormo*), blunt-lobed grape fern (*Botrychium oneidense*), northern wild comfrey (*Cynoglossum virginianum* var. *boreale*), spreading woodfern (*Dryopteris expansa*), ginseng (*Panax quinquefolius*), and American elm (*Ulmus americana*). A finding of "No impact" has been determined for the remaining species identified in Appendix G.

For species identified in Appendix G titled "Regional Forester's Sensitive Species, Likely To Occur", the Biological Evaluation has determined a finding of "May impact individuals, but not likely to cause a trend to federal listing or loss of viability for large toothwort (*Cardamine maxima*), male fern (*Dryopteris filix-mas*), and New York Fern (*Thelypteris noveboracensis*). None of these species has been located specifically within any of the proposed treatment sites, but are known to occur in habitat similar to that of the affected area. The remaining species identified in this table have been given a determination of "No impact".

e. Other Sensitive Species Not Addressed in the Biological Evaluation

These species include some of the state listed species designated as state endangered, critically imperiled or imperiled. Habitat within the affected area was deemed suitable for these species, which include those listed in the table below.

State listed species of special concern.

Species	Habitat	Status within affected area
American marten (<i>Martes americana</i>)	Mature mixed forest, cavity trees, and large woody debris.	High likelihood of occurrence, but not verified in affected area.
West Virginia white (<i>Pieris virginiensis</i>)	Host plant is toothwort, which prefers moist shade in rich deciduous forest.	Survey conducted, species not observed in affected area, but host plant observed.
Swainson's thrush (<i>Catharus ustulatus</i>)	Hardwood forest with a spruce understory.	Survey conducted, species not observed in affected area.
Mingan's moonwort (<i>Botrychium minganense</i>)	Rich forest, woodland edges and meadows.	Survey conducted, species not observed in affected area.
Toothwort (<i>Cardamine diphylla</i>)	Rich woods, moist/seepy areas, cedar swamps	Survey conducted, species verified in affected area.
Stoloniferous sedge (<i>Carex assiniboinensis</i>)	Moist shaded areas of rich hardwood forest.	Survey conducted, species verified in affected area.
Broad beach fern (<i>Phegopteris hexagonoptera</i>)	Moist, shaded forest with acidic soil.	Survey conducted, species not observed in affected area.

Habitat within the Phelps Snowmobile Trail Project is considered suitable for American marten, Swainson's thrush, West Virginia white, Mingan's moonwort, toothwort, stoloniferous sedge, and broad beech fern. Field surveys have been completed for each of the plant species, and for the West Virginia white butterfly. Two of the species found were located within the affected area, but not directly within the existing snowmobile trail on National Forest land or proposed trail route. These include stoloniferous sedge and toothwort. Swainson's thrush has been confirmed on the forest, but was not observed during field surveys conducted in the proposed treatment sites. American pine marten exist in low numbers forest-wide, as evidenced by winter track surveys, and probably occupy the remote mature forest habitat along the Wisconsin-Michigan border. Habitat is very suitable in much of section 21 (stands 1-6 of compartment 148) that has a good distribution of tip-up mounds, blowdown, and old stumps, in addition to scattered mature hemlock and super canopy white pine. The remaining two species, Mingan's moonwort, and broad beach fern have not been verified on the Eagle River – Florence Ranger District.

Effects on Other Sensitive Species Not Addressed in the Biological Evaluation

Alternative 1

Effects on such species as marten, toothwort, and stoloniferous sedge would have already occurred and possibly be ongoing. American marten, would likely already be avoiding the area during the time the trail is in use. There appears to be no direct effect on the two plant species, since they were found recently, and the trail has been active for many years. Indirect effects on marten could be a continuation of avoidance of this habitat, however, the majority of the trail under this alternative is considered marginal for this species. Indirect effects on the plant species are not known.

Alternative 2

Under this alternative, disturbance is increased resulting from new trail construction and maintenance as well as the seasonal opening of a presently closed road. If marten are presently using the habitat in the proposed area, which appears to be highly suitable, then they may abandon this area. Songbird and plant surveys conducted along this route did not locate any of the species identified above, so there would be no direct effects impacting these plants and animals. Indirect effects on the plant species are not known. Potentially, Swanson's thrush, and potential habitat for this species could deteriorate as a result of the introduction of "edge" conditions into a mostly contiguous area of closed canopy forest. Specifically, edge associated predators would become more common in this area, primarily section 21 of the affected area (stands 1-6 of compartment 148), and would include blue jay, crow, skunk, fox and others.

The cumulative effects on these species would be similar to those described above in the Wildlife section of this document.

C. Social Factors

1. Public Safety

Direct and Indirect Effects

Alternative 1

The snowmobile trail would not be rerouted onto National Forest land if this alternative were selected. The current location of the snowmobile trail on National Forest land would not change. There are no known snowmobile safety issues on National Forest land in the affected area.

The public safety effects of implementing this alternative on non-National Forest land are not entirely known because the future trail location on non-National Forest land is not known. Where the snowmobile trail would be located on non-

National Forest land under this alternative would be a cooperative effort between the Snowmobile Club, the Town of Phelps and private landowners. If the affected parties agree to locate the trail on private property as it is now, then the safety of trail users would probably be equal to the safety effects of Alternative 2 because snowmobile traffic and public highway traffic would not be mixed except at road crossings and on the last 0.2 mile of the trail where the snowmobile route would be located on Shooting Lane Road.

If the trail were relocated partially or totally onto Town roads such as Davies Road, then safety of the snowmobile trail users and motorists would be less because of the mixing of snowmobile and automobile traffic.

Alternative 2

The snowmobile trail would be rerouted onto National Forest land if this alternative were selected. The public safety effects of implementing this alternative are that the trail would avoid public highways except for the last 0.2 miles that would need to use Shooting Lake Road. The trail would need to use 0.2 mile of Shooting Lane Road (A Town Road) in order to connect the new segment of snowmobile trail with the remaining existing trail. Refer to Map #10 for road names, numbers and locations.

Compared to the prior east-west Davies Road snowmobile route that was 0.5 mile long, and passed by two private driveways and through one Town road intersection (Davies Road and Shooting Lane Road), this Alternative would not use Davies Road but would use 0.2 mile of Shooting Lane Road and would pass one private driveway and pass through the same Town road intersection. Refer to map #7.

It is important to note that all alternatives available would use some portion of some Town Road even if the snowmobile trail is relocated onto National Forest land. The concern of mixing snowmobile traffic with public automobile traffic would be present with any alternative in this analysis.

Cumulative Effects

Alternative 1

If Alternative 1 were selected, then the snowmobile trail would remain in the same location on National Forest land as it has for at least the past 10-15 years. If the trail remains in the same location on National Forest land there would not be any cumulative effects regarding safety on National Forest land. The current trail location on National Forest land is safe because it does not use roads that are open to public vehicle traffic. There would be no increase or decrease in trail safety factors on National Forest land.

If the trail remains in the same location on National Forest land there could be a future decrease in public safety if the snowmobile trail that is currently located on private land is relocated to part or all of Davies Road as a result of private landowners refusing to allow the snowmobile trail to continue to be located on their property.

Alternative 2

If Alternative 2 were selected, then the snowmobile trail would be relocated to use National Forest land and not private land. Because the current snowmobile trail location (see Map #5 Appendix A) solved the safety issue by using private lands instead of Davies Road, there is not much difference between the current snowmobile trail location and Alternative 2 regarding safety and the mixing of snowmobile traffic and public motor vehicle traffic.

2. Private Land

Direct, Indirect and Cumulative Effects

Alternative 1

This alternative would result in the Phelps Snowmobile Club, private landowners and the Town of Phelps having to decide where to route the snowmobile trail on Town roads and/or private land because National Forest land would not be available for a new snowmobile trail.

This scenario could result in the trail being closed because the Town would not want to reroute it on Davies Road and landowners would not want to continue to allow the snowmobile trail on private property.

The current trail is located on private lands north and south of Davies Road. This is the second season that this entirely private property route has been used but according to the Phelps Snowmobile Club some landowners have said this would be the last year that they would give permission for the trail to be located in their property.

Alternative 2

Alternative 2 would result in the trail being relocated to National Forest land instead of being located on private land as it is now. The snowmobile trail location proposed in Alternative 2 however would be located less than 200 feet (estimated from map) of the southeast property corner one private landowner in the NESE Section 20. The proposed trail at this point would be located on an existing closed road (Forest Road 2563A).

The proposed trail location would also use approximately 0.6 mile of Forest Road 2563 which is also the only access to the private property on the southeast side of Norwood Lake. This Forest Service road is normally not plowed for traffic or used by public motor vehicles in the winter.

3. Economic Environment

Introduction

A variety of methods exist that can be used to measure the economic effects associated with natural resource management. Localized monetary values associated with snowmobile tourism and spending by snowmobilers is difficult to quantify. No attempt has been made here to assign dollar values. The following references in Chapter 6 help describe the economics of snowmobiling and tourism: Anderson, Kenneth C.; Jakes, Pamela J.; Wisconsin Department of Tourism. May 2001; University of Wisconsin-Superior/Extension.

The cost of developing the proposed snowmobile trail system would be borne by the local snowmobile Club and Vilas County through grants from State of Wisconsin. No Forest Service funds would be used to construct the new segments of snowmobile trail.

It would be least expensive for the Snowmobile Club and the State of Wisconsin to use the existing trail through private property and not develop a new trail through the National Forest. However, if the private property owners deny continued use of the trail through their property then there are few options for providing a safe trail location other than through the National Forest.

Direct and Indirect Effects

Alternative 1

Alternative 1 would result in no new or additional designated snowmobile trails on National Forest land. The Phelps Snowmobile Club would need to continue to work with private landowners and the Town of Phelps to find a mutually agreeable and safe trail location.

Snowmobile traffic coming from the east to Phelps would be interrupted. Local economic effects of closure of this segment of snowmobile trail cannot be estimated other than to say that there would be a possible reduction in the amount of snowmobile traffic in the Phelps area and the economic benefits that come from that traffic.

Snowmobile traffic coming from the north (Land O' Lakes), from the south (Eagle River) and from the west (Conover) into Phelps via other State funded snowmobile trails would not be reduced unless the only reason for riding snowmobiles to Phelps would be to pass through on the way east toward Neima,

WI about 13 miles east of Phelps by snowmobile or Iron River, Michigan about 23 miles to the east by snowmobile.

Alternative 2

The economic effects of selecting alternative 2 would be that snowmobile traffic into and out of the Phelps area would remain unchanged. There would not be any change in the current economic benefits attributable to snowmobile traffic.

No Forest Service funds would be expended to construct or locate new State-funded snowmobile trails on National Forest land. Financial responsibility for all activities in the proposed action would be that of the Phelps Snowmobile Club, Vilas County and the State of Wisconsin.

Cumulative Effects

Alternative 1

Alternative 1 would not necessarily result in an irretrievable loss of spending by snowmobilers in the Phelps area. No adverse effects on tourism are anticipated. There would be an opportunity to provide continued snowmobile trail access from the east via private property and or Town Roads even though the National Forest route is probably the preferred location by landowners in the Davies Road area. Snowmobile traffic into Phelps would continue without change from the north, south and west of Phelps.

Alternative 2

Alternative 2 would not affect the current economic benefits coming into Phelps.

4. Visual Quality

Direct and Indirect Effects

Alternative 1

There would be no change to the existing condition of the National Forest as a result of implementing this alternative. No additional snowmobile trail would be located on National Forest lands.

Alternative 2

The proposed new trail construction segments are not visible from roads open to traffic or from any other public viewing location.

The visual effect of providing a 10-12 foot wide corridor through the open stand of hardwood would be minimal. The visual effect of opening a legally minimal

width corridor through the wetland described on page 53 would be more noticeable due to denser shorter conifer vegetation and a straight-line effect.

Cumulative Effects

Alternative 1

There would be no cumulative effects under alternative 1.

Alternative 2

Past

The effects of past cutting practices within and immediately adjacent to the affected area are occasionally evident along the main roads.

Present

With the application of the mitigation measures described above, the proposed actions would not appreciably change the overall character of the landscape. All alternatives would meet the visual quality objectives of partial retention and modification.

Future

The cumulative effects of past management practices, the proposed snowmobile trail project, and resource management projects in the foreseeable future such as timber harvest would result in a forested condition that is natural appearing and meets the visual quality objectives for the affected area. See page 41.

5. Recreation

- a. Developed and dispersed recreation; and**
- b. Recreation opportunity spectrum (ROS)**

Direct and Indirect Effects

Alternative 1

There would be no change in the non-motorized or motorized recreation opportunities on National Forest land if alternative 1 were implemented. Hunting, hiking and other traditional recreation uses in the affected area would continue and would remain unchanged.

If alternative 1 is selected then trail-based snowmobile activity in the affected area could come to an end if no snowmobile route on private property and/or Town roads can be agreed on by the Snowmobile Club, private landowners and the Town of Phelps.

Alternative 2

There would be no change in the spring, summer and fall recreational opportunities in the affected area. Traditional uses of the area would continue unchanged.

Alternative 2 would be consistent with the current recreational use in the affected area. However, this proposed trail location would recreationally fragment the quality and opportunities for non-motorized recreation in the affected area. The existing snowmobile trail on National Forest land is located south of the new proposed trail location. The existing snowmobile trail on National Forest land has been in place since the early-1980s and probably longer thus allowing a 'recreation equilibrium' to occur between developed trail-based winter motorized recreation use in the southern part of the affected area and dispersed non-motorized recreation in the northern part of the affected area.

There would be no change in the non-motorized recreation resources and opportunities on National Forest land if alternative 2 were implemented. Hunting, hiking and other historical recreation uses in the affected area would remain unchanged. However the quality of winter recreation opportunities such as winter hiking and snowshoeing in the affected area could be diminished because of the intrusion of the sight and sounds and smells of snowmobiles.

While placing a snowmobile trail through this area that is currently closed to motorized vehicles would not take it out of consideration for hunting or low impact recreation, the proposed snowmobile trail would diminish the quality of non-motorized recreation during the winter season.

Cumulative Effects

Alternative 1

Recent recreation use such as hunting and hiking within the affected area has been in harmony with past management practices. This would continue to be true under Alternative 1. Present and future opportunities for non-motorized recreation on open and closed roads such as mountain bicycling would remain.

Alternative 2

The combined effects of past actions of road building, and the proposed action of relocating a snowmobile trail are expected to have cumulative impacts on non-motorized recreation access, settings, or opportunities within the affected area and on the adjacent private land next to Norwood Lake. While Alternative 2 is consistent with the Nicolet Forest Plan, the establishment of a motorized trail in this location would diminish the quality of but not prevent future non-motorized winter recreation access, settings, and opportunities.

There could be a temporary concern between snowmobile users and timber hauling activities on some portions of the snowmobile trail where snowmobile routes occur along roads that would be used for future timber hauling.

Present and future opportunities for non-motorized recreation (such as mountain bicycling) on open and closed roads would remain.

c. Solitude and sounds.

Direct and Indirect Effects

Alternative 1

New or increased sounds of snowmobiles would not occur in the National Forest if Alternative 1 were implemented.

If alternative 1 is implemented, the sounds of snowmobiles in the Davies Road and the surrounding private property would remain the same if the Town and Snowmobile Club decide to relocate the snowmobile trail to Davies Road or to Davies Road and/or private property.

Alternative 2

The snowmobile trail location proposed in Alternative 2 would be located less than 200 feet (estimated from map) from the southeast property corner of one private landowner in the NESE Section 20. The proposed trail at this point would be located on an existing closed Forest Service road (Forest Road 2563A). The owners of this private property would be able to hear snowmobile trail traffic from their property.

There would be an increase in snowmobile sounds during the winter in the affected area. The private property on the southeast side of Norwood Lake would be affected. Forest Road 2563A would be used as the snowmobile route but is closed to automobile and truck traffic during the entire year.

Motorized sounds from snowmobiles would be eliminated in the vicinity of the current trail location on private lands because the trail in that location would no longer exist. Sounds of public motor vehicle traffic from Davies Road and Shooting Lane Road and Highway 17 would remain.

Cumulative Effects

Alternative 1

There would not be any change in the current levels of motorized sounds in the affected area. Opportunities for solitude in the affected area would not change

from the current condition. Any future timber sale activity would create motorized sounds in the affected area.

Alternative 2

Implementation of Alternative 2 would not cause more motorized sounds from snowmobiles in the affected area because a snowmobile trail already exists in the affected area on National Forest land. But because Alternative 2 would result in the trail shifting further north in the affected area and result in more length of snowmobile trail in the National Forest in the affected area the cumulative effect would be longer duration of sounds of snowmobiles in the National Forest and a greater area of National Forest land affected by the motorized sounds. Any future winter timber sale activity would add to the snowmobile sounds.

According to a Phelps Snowmobile club official, the adjacent snowmobile club in Michigan would like to tie in with the Phelps snowmobile club near the Boot Lake Road area. This could be a cumulative effect in the future.

6. Heritage Resources

Direct and Indirect Effects

Alternative 1

Implementation of Alternative 1 would not affect Heritage Resources on National Forest land.

Alternative 2

The cumulative effects of past activities, the action alternatives, and foreseeable future actions are not expected to have any effect on the condition of known heritage resources within the affected area. Any sites that are discovered as a result of this or future projects would be protected and evaluated. Thus there is expected to be no effects/impacts to any objects potentially eligible for listing in the National Register of Historic Places nor any loss or destruction of significant scientific, cultural or historical resources.

7. Access: Roads and Trails

Refer to the definitions of roads and trails in Appendix H.

All alternatives have these factors in common:

- All existing open roads in any alternative would remain open to motor vehicle traffic.

- All existing closed roads in any alternative would remain closed to motor vehicles except for snowmobile traffic on the designated snowmobile route during snowmobile trail open season and trail maintenance equipment.
- Segments of trail that would require new construction would be closed to motor traffic except snowmobiles and trail maintenance equipment.

Direct and Indirect Effects

Alternative 1

There would be no change from present road or trail conditions under alternative 1. Opportunities for recreation access would not be increased, improved or reduced with the implementation of this alternative.

The effect of implementing Alternative 1 would be that the existing snowmobile trail on National Forest land would remain in the same location. There would be no change in the amount of snowmobile trail on National Forest lands.

Because the trail would not be relocated onto National Forest land under this alternative, the Phelps Snowmobile Club would need to work with local landowners and the Town of Phelps to either agree to keep the snowmobile trail at the current location on private lands or to relocate the snowmobile trail onto a Town Road or a combination of both. If agreement could not be reached then this trail segment might be closed.

Under Alternative 1 motorized and foot access for all hunters would remain unchanged. Areas that are currently not accessible by automobile would remain as such. During the fall hunting season, closed gates would remain closed to all hunters. Roads that are currently open to hunters would remain open.

Existing motorized access for hunters would remain open and no additional areas would be closed off to motor vehicles.

Alternative 2

The proposal would open closed Forest Service roads during the winter months to public snowmobile traffic. These roads would remain closed to all public motor vehicle traffic including all terrain vehicles (ATVs) during all times of the year. Existing gates on closed Forest Service roads would remain in place. New gates would be installed on roads currently closed with berms where the road would be opened during the months of December through March for snowmobile traffic. Gates would be opened in the winter and closed when the snowmobile trails are officially closed in the spring. This practice of seasonally opening and closing existing Forest Service roads with gates to accommodate State-funded snowmobile routes has been used on other snowmobile trails on the Eagle River-Florence Ranger District.

Under Alternative 2, the Phelps Snowmobile Trail project would seasonally open (December-March depending on snow conditions) to snowmobiles 1.8 miles of existing Forest Service roads that are closed to public motor vehicles. The project would construct 0.7 miles of new snowmobile trail and close to snowmobiles the 1.5 miles of unneeded portion of existing snowmobile trail on National Forest land. Refer to Map #7 in Appendix A.

There would be a net gain of 1.9 miles of snowmobile trail on National Forest land under alternative 2. Refer to page 22.

There would not be any changes from current road access opportunities. The Phelps Snowmobile Trail Project would not construct new roads, reconstruct existing roads or maintain roads. The project would not close Forest Service roads that are currently open to public motor vehicle traffic and likewise not open roads currently closed to public motor vehicle traffic except snowmobile traffic as previously explained. The proposed project would not affect existing road standards, existing maintenance levels or change the current ability of the public to access National Forest land via street legal motor vehicles (cars and trucks). The proposal and alternatives would not obliterate, rehabilitate or decommission any roads currently closed in the affected area. The proposal and the alternatives would not add to or decrease the existing road density in the affected area.

Under Alternative 2 motorized and foot access for hunters, including tribal hunters, would remain unchanged. Areas that are currently not accessible by automobile would remain as such. During the fall hunting season closed gates would remain closed to all hunters. Roads that are currently open to hunters would remain open.

Existing motorized access for all hunters would remain open and no additional areas would be closed off to motor vehicles. Opportunities for non-motorized recreation access would not be increased, improved or reduced with the implementation of this alternative.

If Alternative 2 is selected then the Forest Service would require that any abandoned segment of existing State funded snowmobile trail that is not part of the Forest Service road system be closed by the Phelps Snowmobile Club to snowmobile and other motor vehicles. This would help prevent continued use of the existing snowmobile trail.

Cumulative Effects

Alternative 1

The no action decision could result in an increase in miles of snowmobile trail on Town Roads if landowners close the existing snowmobile trail on their land and if

the Snowmobile Club and the Town agree to place the trail back onto Town Roads in order to keep the trail open.

If this trail segment were closed then the “100 mile Circle Route” (Phelps to Iron River, MI to Watersmeet, MI to Land O’ Lakes, WI to Phelps) mentioned on page of this EA would be broken. This could interrupt snowmobile traffic to other communities in this circle tour.

Alternative 2

One probable future cumulative effect would be that some snowmobilers would leave the designated trail and ride on other roads when the designated snowmobile trail intersects an un-snowplowed Forest Service Road (Nicolet National Forest Land and Resource Management Plan page 43). Also refer to page 6 of this document. While this is not a common occurrence it should be expected. There is no policy against riding snowmobiles on un-snowplowed roads unless that road is closed to motor vehicles. However most snowmobiles are not designed to go off of groomed snowmobile trails into deep unpacked snow.

Implementation of Alternative 2 would designate part of Forest Road 2563 as a snowmobile route. It is likely that some snowmobilers would leave the trail (where roads intersect the designated snowmobile trail) and ride on un-snowplowed road surfaces.

There would be a possibility that some snowmobilers will continue to use the shortest distance (the current route) through the Nicolet National Forest and onto Davies Road etc instead of the new route provided under Alternative #2.

Existing Forest Service roads in the affected area would be used in the future for timber sale access. Any existing roads used for a snowmobile route would probably be used in the future for hauling timber in the winter months.

According to a Phelps Snowmobile club official, the adjacent snowmobile club in Michigan would like to tie in with the Phelps snowmobile club near the Boot Lake Road area. This could be a cumulative effect in the future.

Effects on Consumers, Civil Rights, Minority Groups and Women

Forest service activities must be conducted in a discrimination free atmosphere. The Forest Service will make a concerted effort to enforce these policies. Executive Order 12398 of February 11, 1994, Environmental Justice as part of National Environmental Policy Act (NEPA), calls for consideration of the environmental, health, and economic effects on minority and low-income areas including the consumption patterns for fish and wildlife and forest products. The

Phelps snowmobile trail project would have very limited effect on minorities and low-income populations, if at all. The nearest minority populations are the Lac Vieux Desert Band of Lake Superior Chippewas in Watersmeet, Michigan and the Lac du Flambeau Band of Lake Superior Chippewas in Lac du Flambeau, Wisconsin. These tribes may utilize the Eagle River portion of the Ranger District for harvest of wildlife. This project is not anticipated to affect fishing and hunting opportunities. Access to the affected area would remain unchanged except that snowmobile access would increase under Alternative 2.

CHAPTER 5 MONITORING

If the proposed trail relocation is approved project monitoring would be conducted during the actual trail relocation and construction activity as part of the special-use permit administration. Monitoring would also be done the following winter when the public is actually using the trail and then again the following summer to inspect the results of the first year of use.

Monitoring could consist of before and after photos and periodic site visits and photos of the trail. Monitoring could be used to note wildlife use of the area via tracks in the snow, effects to vegetation and soil, and presence of native and non-native exotic plants. Monitoring could also be conducted to detect illegal motorized use on the closed trails.

A site visit by the interdisciplinary team before and after trail construction and periodic site visits at different times of the year would be helpful in monitoring effects.

Monitoring gate closures and opening would be done on a yearly basis.

CHAPTER 6 REFERENCES

Anderson, Kenneth C., Professor, University of Wisconsin-Extension, Vilas County. A survey of Vilas County Snowmobile Visitors. Winter 1992-93.

Jakes, Pamela J. June 1998. People of Northern Wisconsin. Social Assessment of the Chequamegon-Nicolet National Forests. USDA Forest Service, North Central Research Station.

Mladencoff, D.J., and J. Pastor. 1993. Sustainable forest ecosystems in the northern hardwood conifer region: Concepts and management. Pages 145-180 in G.H. Applet, J.T. Olsen, N. Johnson, and V.A. Sample, editors. Defining sustainable forestry. Island Press, Washington, D.C.

Verry, Sandy. Research Forester, North Central Research Station, Grand Rapids MN, Personal communication with Quita Sheehan, 3/02.

Wisconsin Department of Tourism. May 2001. Snowmobile Study Recreational Expenditures.

U.S.D.A. Forest Service, Eastern Region, Nicolet National Forest, 1986. Final Environmental Impact Statement for the Nicolet National Forest.

U.S.D.A. Forest Service, Eastern Region, Nicolet National Forest, 1986. Land and Resource Management Plan, Nicolet National Forest.

U.S.D.A. Forest Service, Eastern Region, Ottawa National Forest, 1986. Land and Resource Management Plan, Ottawa National Forest.

USDA Forest Service Handbooks 462, 1974. National Forest Landscape Management Volume 2;

USDA Forest Service Handbook 701; 1995. Landscape Aesthetics. A Handbook for Scenery Management.

USDA Forest Service. 2001a. Conservation Approach for Goblin Fern, *Botrychium mormo* W.H. Wagner. USDA Forest Service.

USDA Forest Service. 2001b. USDA Forest Service: Guide to noxious weed prevention practices. USDA Forest Service, Washington DC.

Wisconsin Department of Natural Resources, Bureau of Forestry. March 1995. Best Management Practices for Water Quality. PUB-FR-093 95

Wisconsin All-Terrain and Snowmobile Statutes and Administrative Rules. PUBL-LE-502 99. Department of Natural Resources Safety Program Section.

University of Wisconsin-Superior/Extension. May 1991. Center for Economic Development. Northern Institute for Economic Development. A Study of Northwest Wisconsin Snowmobilers.

While not referred to in this environmental analysis the following report addresses issues associated with snowmobile recreation in six western National Forests and two National Parks:

Greater Yellowstone Winter Visitor Use Management Working Group. April 1997. Winter Visitor Use Management: A Multi-Agency Assessment.



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

08 JAN 2004

Mr. Terry Dwelle
State Health Officer
North Dakota Department of Health
600 East Boulevard Avenue
Bismarck, ND 58505-0200

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Dwelle:

The U.S. Air Force is preparing an environmental assessment (EA) on an on-base snowmobile trail. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne A. Koop".

FOR WAYNE A. KOOP
Environmental Management Flight Chief

Attachment:
Environmental Assessment



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

10 OCT 2004

Mr. Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

The U.S. Air Force is preparing an environmental assessment (EA) on an on-base snowmobile trail. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,


FOR WAYNE A. KOOP
Environmental Management Flight Chief

Attachment:
Environmental Assessment



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

CEVA 688 TRS
RS-04-030

09 FEB 2004

Mr. Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, ND 58501

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.

Dear Mr. Hildebrand:

A coordination letter was sent to your office Jan 14, 2004 regarding the U.S. Air Force involvement in preparing an environmental assessment (EA) on the construction of a motocross/all-terrain vehicle trail. Unfortunately we are missing the documentation you provided on this project. Please sign the enclosed letter and resend your information to:

Ms. Kristen Rundquist, 319 CES/CEVC
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Rundquist at 701-747-4774.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne A. Koop".

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief

Attachment:
Original coordination request
EA for construction of a motocross/all-terrain vehicle trail



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

ES/BAK/11

Mr. Merlen E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck ND 58505-0200

RE: Environmental Assessment for Grand Forks Air Force Base, North Dakota.


Dear Mr. Paaverud:

The U.S. Air Force is preparing an environmental assessment (EA) on an on-base snowmobile trail. Attached is a copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Comments should be sent within 15 days of receipt of this letter to:

Ms. Heidi Durako, 319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Ms. Durako at 701-747-4774.

Sincerely,


FO2 WAYNE A. KOOP
Environmental Management Flight Chief

Attachment:
Environmental Assessment

ROUTING AND TRANSMITTAL SLIP

Date
8 Jan 04

TO: (Name, office symbol, room number, building, Agency/Post)		Initials	Date
1.	CEV	<i>CEV</i>	<i>8 Jan</i>
2.			
3.			
4.			
5.			

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
1 Coordination	Justify	

REMARKS

Snowmobile Trail Fonsi, EA, Coord letters, & Public Notice

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post) Heidi Durako, Natural Resources Program Manager	Room No. - Bldg.
	Phone No. 747-4774



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

CEVA file 0613 rec
PAS
01-070
01-030

02 FEB 2004

Wayne A. Koop, R.E.M.
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

Merlan E. Paaverud, Jr.
North Dakota Heritage Center
612 East Boulevard Avenue
Bismarck ND 58505-0830

Dear Mr. Paaverud:

Copies of the location map and cultural resource probability map are provided in response to your 22 Jan 04 letter concerning the Environmental Assessments for the On-Base Snowmobile Trail and All-Terrain Vehicle Training Area at Grand Forks AFB (ND SHPO Ref. 97-0527).

In response to your question ("Will the trail run near or through the northeast portion of the air base where there is "High Probability" and/or "Medium Probability" for buried cultural resources and, if so, will any proposed work extend more than 60 cm below the existing ground surface?"), the snowmobile trail will not be located in the vicinity of the northeast corner of the base.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne A. Koop".

WAYNE A. KOOP, R.E.M.
Environmental Management Flight Chief



DEPARTMENT OF THE AIR FORCE
319TH CIVIL ENGINEER SQUADRON
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

file CEVA 68B 7Kc
RPS-04 07D
07 APR. 2004

MEMORANDUM FOR NORTH DAKOTA DIVISION OF COMMUNITY SERVICES
ATTENTION: Jim Boyd
14th Floor State Capitol Building
600 East Blvd
Bismarck ND 58502-0170

FROM: 319 CES/CEV
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

SUBJECT: Finding of No Significant Impact (FONSI)

1. Attached for your information is the FONSI for the project "On-Base Snowmobile Trail" at Grand Forks AFB.
2. The FONSI is being submitted to your office in accordance with Air Force Instruction 32-7061 which requires Grand Forks AFB to notify the OMB Circular Clearing House whenever a FONSI has been completed.
3. If you have any questions concerning this matter, please contact Ms. Kristen Rundquist, 319 CES/CEVC at (701) 747-4774.


WAYNE A. KOOP, R.E.M., GM-13
Environmental Management Flight Chief

Attachment:
FONSI

**FINDING OF NO SIGNIFICANT IMPACT
FOR
ON-BASE SNOWMOBILE TRAIL**

AGENCY: Department of the Air Force

PROPOSED ACTION (On-Base Snowmobile Trail): Under this alternative, Grand Forks AFB would reroute the base's snowmobile trail to allow base residents to ride their snowmobiles on and off base. Snowmobiles would only be driven on the designated trail. Trails would only be used to gain access to off base trails and then to return to the rider's residence. Stop signs are placed at road crossings and occasional orange triangular trail blazers arrows are placed where necessary. The trail is approximately eight to twelve feet wide and nine to ten miles long.

ALTERNATIVES CONSIDERED: Under the second alternative, Grand Forks AFB would not allow snowmobile trails on Grand Forks AFB. Residents would have to transport the snowmobiles via trailers to off-base locations and then transport them back by the same means. The no action alternative would leave the base trail system designated as is. The trail would not be altered to accommodate the blockage caused by the MFH construction projects. Most residents would therefore be unable to use the base trails to get off base. The Freedom Riders, the base's snowmobile club, would abide by the same rules and regulations stated under the proposed action.

ENVIRONMENTAL CONSEQUENCES:

Air Quality - Snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. North Dakota air quality is considered good and the area is in attainment for all criteria pollutants.

Noise - The operation of snowmobiles would increase the amount of noise pollution in the vicinity of the trails.

Wastes, Hazardous Materials, and Stored Fuels – The base's snowmobile trail would not impact wastes, hazardous materials, or stored fuels.

Water Resources – Surface water quality could degrade due to possible erosion contributing to turbidity of runoff and due to possible contamination from spills, leaks from construction equipment. Provided best management practices are followed, there would be minimal impacts to ground water, surface water, water quality, and wetlands.

Biological Resources – Operation of snowmobiles would negatively impact vegetation and destroyed vegetation would need to be repaired immediately. Noise generation would impact wildlife and care would need to be taken when wildlife are in the vicinity of the trail.

Socioeconomic Resources – The base's snowmobile trail would not impact socioeconomic resources.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use – Siting for the proposed action has been approved by the Facility Board.

Transportation Systems – The proposed construction would have minor adverse impacts to base roads due to snowmobiles crossing a limited number of base streets.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

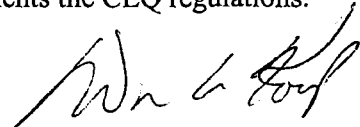
Safety and Occupational Health – According to the base’s safety office, portions of the trail should be eliminated to minimize safety concerns. All culverts and guy wires along the route would have to be flagged or otherwise identified.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. No pesticides would be used as part of this project.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, On-Base Snowmobile Trail.

CONCLUSION: Based on the Environmental Assessment performed for On-Base Snowmobile Trail, no significant environmental impact is anticipated from the proposed action. Based upon this finding, an Environmental Impact Statement is not required for this action. This document and the supporting AF Form 813 fulfill the requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction 32-7061, which implements the CEQ regulations.


WAYNE A. KOOP, R.E.M., GM-13
Environmental Management Flight Chief

Date: 1 APR 04



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April 13, 2004

Wayne A. Koop, R.E.M.
Dept. of the Air Force
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525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

"Letter of Clearance" In Conformance with the North Dakota Federal Program
Review System - State Application Identifier No.: ND040413-0134

Dear Mr. Koop:

SUBJECT: FONSI - On Base Snowmobile Trail

The above referenced FONSI has been reviewed through the North Dakota Federal
Program Review Process. As a result of the review, clearance is given to the project
only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or
area of impact, from the project description submitted for review, then it is necessary
to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or
continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office.
Your continued cooperation in the review process is much appreciated.

Sincerely,

A handwritten signature in cursive script that reads "James R. Boyd".

James R. Boyd
Manager of Governmental Services

pa