Final Report

Environmental Assessment: Demolish 934 of Grand Forks Air Force Base

Prepared by
Grand Forks Air Force Base, North Dakota
319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

March 2006
**Environmental Assessment - Demo 934 Demo Water Booster Station**

**Author(s):** Diane Strom

**Performing Organization:**
319 Civil Engineer Squadron, 525 Tuskegee Airmen Blvd, Grand Forks AFB, ND, 58205-6434

**Distribution/Availability Statement:** Approved for public release; distribution unlimited.

**Security Classification:**
- a. Report: Unclassified
- b. Abstract: Unclassified
- c. This Page: Unclassified

**Limitation of Abstract:**
- 1

**Number of Pages:**
- 101
FINDING OF NO SIGNIFICANT IMPACT
FOR
DEMOLITION OF 934

AGENCY: Department of the Air Force

PROPOSED ACTION: The United States Air Force (USAF) proposes to demolish building 934 belonging to Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: The purpose of the proposed action is to demolish 608 square feet of excess facility space in building 934, known as the booster station, by CES contract in FY 06. Work includes removal of all plumbing, pumps and equipment, removal of the water lines from the water main into the building, replacement of the 14” tees on the water main with a straight piece of pipe, maintain the existing check valve and control valve on the water main with an accessible manhole; mercury, asbestos and lead-based paint abatement and removal; building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration. The Grand Forks AFB Facilities Board agenda includes the demolition of 934, and demolition of 934 is proposed as a CES project. Project number JFSD200192 has been assigned.

A new booster station was installed at the Grand Forks airport in 1999. The old booster station in Grand Forks, building 935, was demolished in 2000. The airport booster station does not need building 934 to function. Building 934 will not work without the airport booster station since building 935 was demolished. The city has installed a new clear well pumping station that has the ability to pump water to the base if the airport booster station fails. Building 934 presents a potential security risk because of the access to the base water supply at that point.

Building 934 was built in the mid to late 1950’s by the city of Grand Forks. It served as a booster station for the drinking water supply line from the city of Grand Forks to the Air Force Base. In 1975 it was deeded from the city to the base. It is a 24’ x 25' concrete block building with concrete floor. The facility identified for demolition has been classified substandard, and repair to this facility would exceed 70% of the replacement value. This project supports facility consolidation and reduction initiatives. The building is located on tract #200, consisting of 0.069 acre, more or less, acquired by Warranty Deed dated 26 July 1972 and recorded 2 December 1974. The grantor was the City of Grand Forks, a municipal corporation. The Warranty Deed conveyed the booster station and the land on which it is located in Section 35, Township 152 North, Range 52 West, Grand Forks County, North Dakota. The city of Grand Forks did not wish to retain any interest in the parcel because it was the only land owned by the City in the immediate area and was purchased specifically for the booster station.

Related demolition EIAP (EA) documents are RCS # 1999-008 Demo Pump Station 935 EA/EBS, Jun 99; and 2000-068 Terminate Easement to Sell Pump Station Land 935 EA/EBS, Feb 00. There are no EIAP documents for building 934.

Grand Forks Air Force Base must decide whether to demolish building 934 by CES contract assigned to Grand Forks AFB.
ALTERNATIVES CONSIDERED

No Action Alternative 1: The no action alternative would be to leave the facility as it is. The facility is old and deteriorated. The base would be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The obsolete, unused pump station would continue to deteriorate, require maintenance, and detract from the appearance of the countryside.

Proposed Action 2: Demolish building 934, a 608 square feet excess facility, on Highway 2, by CES contract in FY 06. Remove the water lines to the building. Replace 14 inch tees on the water main with a straight piece of pipe, leaving the one existing check valve and control valve on the 14” water main which runs from Grand Forks to the base. Maintain an access manhole. Work includes demolition of all plumbing, pumps and equipment; mercury, asbestos and lead-based paint removal abatement and removal; building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

Alternative Action 3: Offer facility 934 for reutilization by another function on base or off base. Renovate the structure to meet the need of the gaining organization, to include disconnection and removal of the water pipes, pumps and valves currently within the booster station.

ENVIRONMENTAL CONSEQUENCES

Air Quality - Air Quality is considered good and the area is in attainment for all criteria pollutants. No significant impacts to air quality would result because of demolition activities.

Noise - The demolition of building 934 would create additional noise. The increase in noise would be negligible and only occur during demolition.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from 934 demolition would be temporary. Solid waste debris would be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert demolition debris would be disposal at an approved location, such as Berger Landfill.

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on stormwater, ground water and water quality. The proposed action would have no impact on wastewater.

Biological Resources – BMPs and control measures, including storm drain covers and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. BMPs would be required to prevent the spread of noxious weeds, minimize soil erosion, and promote the establishment of native plant species.

Socioeconomic Resources - This action would have a minor positive effect on the local economy. Secondary retail purchases would make an additional contribution to the local
communities. The implementation of the proposed action, therefore, would provide a short-term, beneficial impact to local retailers during the demolition phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the demolition, the operator or contractor would be instructed to halt operations and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer. The building is nearly old enough for National Historic Preservation Act eligibility determination, but has no historical importance or significance. Correspondence with the State Historic Preservation Officer was accomplished to coordinate a No Historic Properties Affected determination.

Land Use - The proposed operation would not have an impact on land use, since the disposition of the land is not addressed in the proposed action. The water line below ground from the city to the base would remain intact and in service.

Transportation Systems – The proposed operation would have minor adverse impact to transportation systems due to vehicles traveling to and from 934.

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

Safety and Occupational Health – Participants in the demolition must wear appropriate personnel protective equipment (PPE).

Environmental Management – The proposed action would not impact ERP Sites. BMPs would be implemented to prevent erosion.

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 is 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.

A copy of the EA was available at the Grand Forks AFB Public Affairs office. All interested agencies and persons were invited to submit written comments within thirty days from the public notice. The public notice appeared in the Grand Forks AFB Leader and the Grand Forks Herald. Comments were solicited from the North Dakota Department of Health, U.S. Fish and Wildlife Service, N.D. Game and Fish, and N.D. State Historical Society.

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, demolition of 934.
CONCLUSION: Based on the Environmental Assessment performed for Demolition of 934, 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: 7 Jun 06
Cover Sheet

Agency: United States Air Force (USAF)

Action: The action proposes to demolish building 934 assigned to Grand Forks Air Force Base (AFB), North Dakota.

Contacts: 319 CES/CEVA
525 Tuskegee Airmen Boulevard (Blvd)
Grand Forks AFB, ND  58205

Designation: Final Environmental Assessment (EA)

Abstract: This EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts to demolish building 934, 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 Occupational 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 activities along with other concurrent actions at Grand Forks AFB and the surrounding area.
TABLE OF CONTENTS

1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION….. 13
1.1 Introduction................................................................... 13
1.2 Need For The Action.................................................... 13
1.3 Objectives For The Action............................................. 14
1.4 Scope of EA.................................................................. 14
1.5 Decision(s) That Must Be Made................................. 14
1.6 Applicable Regulatory Requirements And Required Coordination.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES......................................................... 18
2.1 Introduction................................................................ 18
2.2 Selection Criteria For Alternatives............................... 18
2.3 Alternatives Considered But Eliminated From Detailed Study...... 18
2.4 Description Of Proposed Alternatives........................... 18
2.4.1 Alternative 1 (No Action).......................................... 18
2.4.2 Alternative 2 (Proposed Action)................................. 19
2.4.3 Alternative 3.......................................................... 19
2.5 Description of Past, Present, and Reasonably Foreseeable Future Actions Relevant To Cumulative Impacts............ 19
2.6 Summary Comparison Of The Effects Of All Alternatives..... 19
2.7 Identification Of Preferred Alternative.......................... 20

3.0 AFFECTED ENVIRONMENT............................................. 21
3.1 Introduction.............................................................. 21
3.2 Air
Quality................................................................. 21
3.3 Noise........................................................................ 23
3.4 Wastes, Hazardous Materials, and Stored Fuels.............. 25
3.4.1 Hazardous Waste, Hazardous Material, Recyclable Material .......................................................... 25
3.4.2 Underground and Above Ground Storage Tanks ........ 25
3.4.3 Solid Waste Management ....................................... 26
3.5 Water Resources........................................................ 26
3.5.1 Ground Water...................................................... 26
3.5.2 Surface Water...................................................... 27
3.5.3 Waste Water....................................................... 30
3.5.4 Water Quality...................................................... 30
3.5.5 Wetlands.......................................................... 30
3.6 Biological Resources.................................................. 31
3.6.1 Vegetation.......................................................... 31
3.6.2 Wildlife............................................................ 32
3.6.3 Threatened And Endangered Species....................... 32
3.7 Socioeconomic Resources ........................................ 33
3.8 Cultural Resources .................................................. 33
3.9 Land Use .................................................................. 33
3.10 Transportation Systems ......................................... 34
3.11 Airspace/Airfield Operations .................................. 34
3.11.1 Aircraft Safety ..................................................... 34
3.11.2 Airspace Compatibility ....................................... 34
3.12 Safety and Occupational Health ............................ 35
3.13 Environmental Management .................................. 35
3.13.1 Environmental Restoration Program ........................ 35
3.13.2 Geological Resources ........................................... 36
3.13.2.1 Physiography and Topography ......................... 36
3.13.2.2 Soil Type Condition ....................................... 37
3.13.3 Pesticide Management ........................................ 37
3.14 Environmental Justice .......................................... 37

4.0 ENVIRONMENTAL CONSEQUENCES .......................... 38
4.1 Introduction .......................................................... 38
4.2 Air Quality ........................................................... 38
4.2.1 Alternative 1 (No Action) .................................... 38
4.2.2 Alternative 2 (Proposed Action) ............................ 38
4.2.3 Alternative 3 ....................................................... 38
4.3 Noise ..................................................................... 38
4.3.1 Alternative 1 (No Action) .................................... 38
4.3.2 Alternative 2 (Proposed Action) ............................ 38
4.3.3 Alternative 3 ....................................................... 38
4.4 Wastes, Hazardous Materials, and Stored Fuels ............. 39
4.4.1 Alternative 1 (No Action) .................................... 39
4.4.2 Alternative 2 (Proposed Action) ............................ 39
4.4.3 Alternative 3 ....................................................... 39
4.5 Water Resources ..................................................... 39
4.5.1 Alternative 1 (No Action) .................................... 39
4.5.2 Alternative 2 (Proposed Action) ............................ 39
4.5.3 Alternative 3 ....................................................... 40
4.6 Biological Resources ............................................. 40
4.6.1 Alternative 1 (No Action) .................................... 40
4.6.2 Alternative 2 (Proposed Action) ............................ 40
4.6.3 Alternative 3 ....................................................... 41
4.7 Socioeconomic Resources ....................................... 41
4.7.1 Alternative 1 (No Action) .................................... 41
4.7.2 Alternative 2 (Proposed Action) ............................ 41
4.7.3 Alternative 3 ....................................................... 41
4.8 Cultural Resources .................................................. 41
4.8.1 Alternative 1 (No Action) .................................... 41
4.8.2 Alternative 2 (Proposed Action) ............................ 41
G Public Notice and Interagency Comments
List of Tables

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6-1</td>
<td>Summary of Environmental Impacts</td>
<td>20</td>
</tr>
<tr>
<td>3.2-1</td>
<td>Climate Data for Grand Forks AFB, ND</td>
<td>21</td>
</tr>
<tr>
<td>3.2-2</td>
<td>NAAQS and NDAAQS</td>
<td>23</td>
</tr>
<tr>
<td>3.3-1</td>
<td>Typical Decibel Levels Encountered in the Environment and Industry</td>
<td>24</td>
</tr>
<tr>
<td>3.3-2</td>
<td>Approximate Sound Levels of Construction Equipment</td>
<td>24</td>
</tr>
</tbody>
</table>
## ACRONYMS, ABBREVIATIONS, AND TERMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAM</td>
<td>Annual Arithmetic Mean</td>
</tr>
<tr>
<td>ACM</td>
<td>Asbestos Containing Material</td>
</tr>
<tr>
<td>AFB</td>
<td>Air Force Base</td>
</tr>
<tr>
<td>AFI</td>
<td>Air Force Instruction</td>
</tr>
<tr>
<td>AICUZ</td>
<td>Air Installation Compatible Use Zone</td>
</tr>
<tr>
<td>AMC</td>
<td>Air Mobility Command</td>
</tr>
<tr>
<td>APZ</td>
<td>Accident Potential Zone</td>
</tr>
<tr>
<td>ARPA</td>
<td>Archeological Resource Protection Act</td>
</tr>
<tr>
<td>ARW</td>
<td>Air Refueling Wing</td>
</tr>
<tr>
<td>AST</td>
<td>Above Ground Storage Tank</td>
</tr>
<tr>
<td>Ave</td>
<td>Avenue</td>
</tr>
<tr>
<td>BASH</td>
<td>Bird Aircraft Strike Hazard</td>
</tr>
<tr>
<td>Blvd</td>
<td>Boulevard</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>BMX</td>
<td>Bike Motocross</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical Oxygen Demand</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
</tr>
<tr>
<td>CES</td>
<td>Civil Engineer Squadron</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon Monoxide</td>
</tr>
<tr>
<td>dB</td>
<td>decibel</td>
</tr>
<tr>
<td>dBA</td>
<td>Decibels Adjusted</td>
</tr>
<tr>
<td>DNL</td>
<td>Day-Night Average A-Weighted Sound Level</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EIAP</td>
<td>Environmental Impact Analysis Process</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act</td>
</tr>
<tr>
<td>ERP</td>
<td>Environmental Restoration Program</td>
</tr>
<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
</tr>
<tr>
<td>F</td>
<td>Fahrenheit</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>FONPA</td>
<td>Finding of No Practicable Alternative</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>ft</td>
<td>Feet</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>ft³/s</td>
<td>feet cubed per meter</td>
</tr>
<tr>
<td>GFAFB</td>
<td>Grand Forks Air Force Base</td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous Air Pollutants</td>
</tr>
<tr>
<td>hr</td>
<td>Hour</td>
</tr>
<tr>
<td>H₂S</td>
<td>Hydrogen Sulfide</td>
</tr>
<tr>
<td>IAW</td>
<td>in accordance with</td>
</tr>
<tr>
<td>IRP</td>
<td>Installation Restoration Program</td>
</tr>
<tr>
<td>LT</td>
<td>Long-Term</td>
</tr>
<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
</tr>
<tr>
<td>MFH</td>
<td>Military Family Housing</td>
</tr>
<tr>
<td>mph</td>
<td>Miles Per Hour</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet</td>
</tr>
<tr>
<td>MSL</td>
<td>Mean Sea Level</td>
</tr>
<tr>
<td>µg/m³</td>
<td>Micrograms Per Meter Cubed</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
</tr>
<tr>
<td>ND</td>
<td>North Dakota</td>
</tr>
<tr>
<td>NDAAQS</td>
<td>North Dakota National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NDAC</td>
<td>North Dakota Administrative Code</td>
</tr>
<tr>
<td>NDDH</td>
<td>North Dakota Department of Health</td>
</tr>
<tr>
<td>NDPDES</td>
<td>North Dakota Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NESHAP</td>
<td>National Emission Standards for Hazardous Air Pollutants</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Act</td>
</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NOₓ</td>
<td>Nitrogen Oxides</td>
</tr>
<tr>
<td>NO₂</td>
<td>Nitrogen Dioxide</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>NPL</td>
<td>National Priorities List</td>
</tr>
<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>NWR</td>
<td>National Wildlife Refuge</td>
</tr>
<tr>
<td>O₃</td>
<td>Ozone</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Act</td>
</tr>
<tr>
<td>OWS</td>
<td>Oil Water Separator</td>
</tr>
<tr>
<td>P2</td>
<td>Pollution Prevention</td>
</tr>
<tr>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>PCS</td>
<td>Petroleum-Contaminated Soil</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>Particulate Matter 10 Microns in Diameter</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>Particulate Matter 25 Microns in Diameter</td>
</tr>
</tbody>
</table>
POL  Petroleum Oil Lubricant
ppm  Parts Per Million
PSD  Prevention of Significant Deterioration

QA/QC  Quality Assessment and Quality Control
RACM  Regulated Asbestos Containing Materials
RCRA  Resource Conservation and Recovery Act
RI/FS  Remedial Investigation/Feasibility Study
RV   Recreational Vehicle

SAGE  Strategic Air Ground Equipment
SAIC  Science Applications International Corporation
SARA  Superfund Amendments and Reauthorization Act
SO$_2$  Sulfur Dioxide
SO$_X$  Sulfur Dioxide
St   Street
ST   Short-Term
SWMU Solid Waste Management Unit

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
USEPA United States Environmental Protection Agency
UST  Underground Storage Tank

VOC  Volatile Organic Compound
EXECUTIVE SUMMARY

The United States Air Force (USAF) proposes to demolish building 934 assigned to Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: The purpose of the proposed action is to demolish 608 square feet of excess facility space in building 934, known as the booster station, by CES contract in FY 06. Work includes removal of all plumbing, pumps and equipment, removal of the water lines from the water main into the building, replacement of the 14” tees on the water main with a straight piece of pipe, maintain the existing check valve and control valve on the water main with an accessible manhole; mercury, asbestos and lead-based paint abatement and removal; building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration. The Grand Forks AFB Facilities Board agenda includes the demolition of 934, and demolition of 934 is proposed as a CES project. Project number JFSD200192 has been assigned.

A new booster station was installed at the Grand Forks airport in 1999. The old booster station in Grand Forks, building 935, was demolished in 2000. The airport booster station does not need building 934 to function. Building 934 will not work without the airport booster station since building 935 was demolished. The city has installed a new clear well pumping station that has the ability to pump water to the base if the airport booster station fails. Building 934 presents a potential security risk because of the access to the base water supply at that point.

Building 934 was built in the mid to late 1950’s by the city of Grand Forks. It served as a booster station for the drinking water supply line from the city of Grand Forks to the Air Force Base. In 1975 it was deeded from the city to the base. It is a 24’ x 25’ concrete block building with concrete floor. The facility identified for demolition has been classified substandard, and repair to this facility would exceed 70% of the replacement value. This project supports facility consolidation and reduction initiatives. The building is located on tract #200, consisting of 0.069 acre, more or less, acquired by Warranty Deed dated 26 July 1972 and recorded 2 December 1974. The grantor was the City of Grand Forks, a municipal corporation. The Warranty Deed conveyed the booster station and the land on which it is located in Section 35, Township 152 North, Range 52 West, Grand Forks County, North Dakota. The city of Grand Forks did not wish to retain any interest in the parcel because it was the only land owned by the City in the immediate area and was purchased specifically for the booster station.

Related demolition EIAP (EA) documents are RCS # 1999-008 Demo Pump Station 935 EA/EBS, Jun 99; and 2000-068 Terminate Easement to Sell Pump Station Land 935 EA/EBS, Feb 00. There are no EIAP documents for building 934.

Grand Forks Air Force Base must decide whether to demolish building 934 by CES contract assigned to Grand Forks AFB.

No Action Alternative 1: The no action alternative would be to leave the facility as it is. The facility is old and deteriorated. The base would be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The obsolete,
unused pump station would continue to deteriorate, require maintenance, and detract from the appearance of the countryside.

Proposed Action 2: Demolish building 934, a 608 square feet excess facility, on Highway 2, by CES contract in FY 06. Remove the water lines to the building. Replace 14 inch tees on the water main with a straight piece of pipe, leaving the one existing check valve and control valve on the 14” water main which runs from Grand Forks to the base. Maintain an access manhole. Work includes demolition of all plumbing, pumps and equipment; mercury, asbestos and lead-based paint removal abatement and removal; building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

Alternative Action 3: Offer facility 934 for reutilization by another function on base or off base. Renovate the structure to meet the need of the gaining organization, to include disconnection and removal of the water pipes, pumps and valves currently within the booster station.

Impacts by Resource Area

Air Quality - Air Quality is considered good and the area is in attainment for all criteria pollutants. No significant impacts to air quality would result because of demolition activities.

Noise - The demolition of building 934 would create additional noise. The increase in noise would be negligible and only occur during demolition.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from 934 demolition would be temporary. Solid waste debris would be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert demolition debris would be disposed at an approved location, such as Berger Landfill.

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on stormwater, ground water and water quality. The proposed action would have no impact on wastewater.

Biological Resources – BMPs and control measures, including storm drain covers and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. BMPs would be required to prevent the spread of noxious weeds, minimize soil erosion, and promote the establishment of native plant species.

Socioeconomic Resources - This action would have a minor positive effect on the local economy. Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, beneficial impact to local retailers during the demolition phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the demolition, the operator or contractor would be instructed to halt operations and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer. The building is nearly old
enough for National Historic Preservation Act eligibility determination, but has no historical importance or significance. Correspondence with the State Historic Preservation Officer will be accomplished to coordinate a No Historic Properties Affected determination.

Land Use - The proposed operation would not have an impact on land use, since the disposition of the land is not addressed in the proposed action. The water line below ground from the city to the base would remain intact and in service.

Transportation Systems – The proposed operation would have minor adverse impact to transportation systems due to vehicles traveling to and from 934.

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

Safety and Occupational Health – Participants in the demolition must wear appropriate personnel protective equipment (PPE).

Environmental Management – The proposed action would not impact ERP Sites. BMPs would be implemented to prevent erosion.

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 is 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 demolition of building 934 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). The 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 United States Air Force (USAF) 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 on 0.069 acre of Air Force land approximately four miles east of 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 Sep 2005, is approximately 5,853. Of that, 2,665 are military, 2,790 are military dependents, and 398 civilians working on base (Grand Forks AFB, 2005).

1.2 NEED FOR THE ACTION

The purpose of the proposed action is to demolish 608 square feet of excess facility space in building 934, known as the booster station, by CES contract in FY 06. Work includes mercury, asbestos and lead-based paint removal abatement and removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration. The Grand Forks AFB Facility Board agenda includes the demolition of 934, and demolition of 934 is proposed as a CES contract. Project JFSD200192 has been assigned.

A new booster station was installed at the Grand Forks airport in 1999. The booster station in Grand Forks, building 935, was demolished in 2000. The airport booster station does not need building 934. Building 934 will not work without the airport booster station since building 935 was demolished. The city has installed a new clear well pumping station that will have the ability to pump water to the base if the airport booster station fails. Building 934 presents a potential security risk because of the access to the base water supply at that point.
Building 934 was acquired in 1975 as a booster station for the water supply line from Grand Forks city to the base. It is a 24' x 25' concrete block building with concrete floor. The facility identified for demolition has been classified substandard, and repair to this facility would exceed 70% of the replacement value. This project supports facility consolidation and reduction initiatives. The building is located on tract #200, consisting of 0.069 acre, more or less, acquired by Warranty Deed dated 26 July 1972 and recorded 2 December 1974. The grantor was the City of Grand Forks, a municipal corporation. The Warranty Deed conveyed the booster station and the land on which it is located in Section 35, Township 152 North, Range 52 West, Grand Forks County, North Dakota. The city of Grand Forks did not wish to retain any interest in the parcel because it was the only land owned by the City in the immediate area and was purchased specifically for the booster station. A copy of the legal document is included in Appendix F.

1.3 OBJECTIVES FOR THE ACTION

Demolition would reduce 608 square feet of industrial space of Grand Forks AFB. This project supports facility consolidation and reduction initiatives.

1.4 SCOPE OF EA

This EA identifies, describes, and evaluates the potential environmental impacts associated with demolition of building 934 on Grand Forks AFB. This analysis covers only those items listed above. It does not include any previous construction or demolition of facilities, parking lots, associated water drainage structures, or other non-related construction and demolition 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 implementing demolition of building 934 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 No 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 any 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 irrevocable 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.]
Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit for both waste water and storm water to cover base-wide industrial activities. Implementation of the proposed action or an alternative action would disturb less than one acre, and thus negate the need for Grand Forks AFB to obtain a separate NPDES construction permit from the North Dakota Department of Health (NDDH). Our general small site permit would cover this activity and needs to be tracked by the construction agent IAW the appropriate rules. The permit would allow discharge of storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover.

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 are sent to agencies with pertinent resource responsibilities. In accordance with 32 CFR 989, a copy of the final EA is submitted to the ND Division of Community Services.

Applicable regulatory requirements and required coordination before and during construction include a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, and Erosion and Sediment Control Plan to the CEV Water Program Manager; a Spill Control Plan and Waste Disposal Plan to the CEV Pollution Prevention Manager; and copies of
all plans to the Contracting Officer. A Notification of Demolition and Renovation must be sent to the State Health Department and the State Historical Society.
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:

- A cost effective method to dispose of an excess facility assigned to Grand Forks AFB.
- Minimum mission requirements include efficiency, effectiveness, legality, and safety to meet AF requirements.
- Minimum environmental standards include OSHA, AFOSH, NFPA, AFI, CFR, EPA and North Dakota standards for noise, air, water, safety, HW, vegetation, cultural, geology, soils, and socioeconomic.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

There were no alternatives considered but eliminated from detailed study.

2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

This section describes the activities that would occur under three alternatives: the no action alternative, the proposed action, and action alternative. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

2.4.1 Alternative 1 (No Action Alternative): Status Quo

The no action alternative would be to leave the facility as it is. The facility is old and deteriorated and would remain vacant. The base would be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The obsolete, unused pump station would continue to deteriorate, require maintenance, and detract from the appearance of the countryside.
2.4.2 Alternative 2 (Proposed Action): Demolish building 934, a 608 square feet excess facility, on Highway 2, by CES contract in FY 06. Work includes mercury, asbestos and lead-based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

2.4.3 Alternative 3: Offer facility 934 for reutilization by another function on base or off base. Renovate the structure to meet the need of the gaining organization, to include disconnection and removal of the water pipes, pumps and valves currently within the booster station.

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. Related demolition EIAP (EA) documents are RCS # 1999-008 Demo Pump Station 935 EA/EBS, Jun 99; and 2000-068 Terminate Easement to Sell Pump Station Land 935 EA/EBS, Feb 00. There are no EIAP documents for building 934.

2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

Potential impacts from implementing the No Action Alternative, the Proposed Action, and Alternative are discussed in detail in Chapter 4.
Table 2.6.1: Summary of Environmental Impacts

<table>
<thead>
<tr>
<th>Environmental Category</th>
<th>No Action Alternative 1</th>
<th>Proposed Action 2</th>
<th>Alternative 3</th>
<th>Legend: ST = short-term; LT = long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Noise</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Wastes, Hazardous Materials, and Stored Fuels</td>
<td>None</td>
<td>Adverse ST Impact</td>
<td>Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Water Resources</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Ground Water</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Surface Water</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Wastewater</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Water Quality</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Wetlands</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Biological Resources</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Vegetation</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Noxious Weeds</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Wildlife</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Threatened and Endangered Species</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Socioeconomic Resources</td>
<td>None</td>
<td>Beneficial ST Impact</td>
<td>Beneficial ST Impact</td>
<td></td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Land Use</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Transportation Systems</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Airspace/Airfield Operations</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Aircraft Safety</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Airspace Compatibility</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Safety and Occupational Health</td>
<td>None</td>
<td>Minor Adverse ST Impact</td>
<td>Minor Adverse ST Impact</td>
<td></td>
</tr>
<tr>
<td>Environmental Management</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Installation Restoration Program</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Geophysical Resources</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Pesticide Management</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

2.7 IDENTIFICATION OF PREFERRED ALTERNATIVE

Grand Forks AFB would demolish excess facility 934 on base by CES contract. Work includes mercury, asbestos and lead-based paint removal abatement and removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.
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 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 the alternatives. While the section specifically addresses the Grand Forks AFB in many places, the location of the proposed action is only four miles east of the base, and the descriptions pertain to the area. All personnel, maintenance, and disposal actions originate and conclude at the Grand Forks Air Force Base.

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 Farenheit (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 humidity 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>
<thead>
<tr>
<th>Table 3.2-1: Climate Data for Grand Forks AFB, ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Temperature (°F)</td>
</tr>
<tr>
<td>Daily</td>
</tr>
<tr>
<td>Month</td>
</tr>
<tr>
<td>January</td>
</tr>
<tr>
<td>February</td>
</tr>
<tr>
<td>March</td>
</tr>
<tr>
<td>April</td>
</tr>
<tr>
<td>May</td>
</tr>
<tr>
<td>June</td>
</tr>
<tr>
<td>July</td>
</tr>
<tr>
<td>August</td>
</tr>
<tr>
<td>September</td>
</tr>
<tr>
<td>October</td>
</tr>
</tbody>
</table>
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 establishes 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 (NOₓ), volatile organic compounds (VOCs), or sulfur oxides (SOₓ), 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 (PM₂.₅). Combustion creates CO, SO₂, PM₁₀, and PM₂.₅ particulate matter and the precursors (VOC and NO₂) to O₃. Only small amounts 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)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>NAAQS µg/m³ (ppm)a</th>
<th>NDAAQS µg/m³ (ppm)a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primaryb</td>
<td>Secondaryc</td>
</tr>
<tr>
<td>O₃</td>
<td>1 hr</td>
<td>235 (0.12)</td>
<td>Same</td>
</tr>
<tr>
<td></td>
<td>8 hr</td>
<td>157 (0.08)</td>
<td>Same</td>
</tr>
<tr>
<td>CO</td>
<td>1 hr</td>
<td>40,000 (35)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>8 hr</td>
<td>10,000 (9)</td>
<td>None</td>
</tr>
<tr>
<td>NO₂</td>
<td>AAMd</td>
<td>100 (0.053)</td>
<td>Same</td>
</tr>
<tr>
<td>SO₂</td>
<td>1 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>3 hr</td>
<td>None</td>
<td>1,300 (0.5)</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>365 (0.14)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>80 (0.03)</td>
<td>715 (0.273)</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>AAM</td>
<td>50</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>150</td>
<td>Same</td>
</tr>
<tr>
<td>PM₂.₅e</td>
<td>AAM</td>
<td>65</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>24 hr</td>
<td>15</td>
<td>Same</td>
</tr>
<tr>
<td>Pb</td>
<td>¼ year</td>
<td>1.5</td>
<td>Same</td>
</tr>
<tr>
<td>H₂S</td>
<td>1 hr</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>3 mth</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>AAM</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Instantaneous</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>280 (0.20)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>140 (0.10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>28 (0.02)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14 (10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14 (10)</td>
</tr>
</tbody>
</table>

a µg/m³ – micrograms per cubic meter; ppm – parts per million
b National 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.
c National 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.
d AAM – Annual Arithmetic Mean.
e The 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. |
| PM₂.₅ 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

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

\(^a\) dBA – decibals
\(^b\) ft – feet
\(^c\) hr - hours
Source: US Army, 1978

Table 3.3-2
Approximate Sound Levels (dBA) of Construction Equipment

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Sound Levels (dBA) at Various Distances (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Front-end Loader</td>
<td>84</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>83</td>
</tr>
<tr>
<td>Truck</td>
<td>83</td>
</tr>
<tr>
<td>Tractor</td>
<td>84</td>
</tr>
</tbody>
</table>

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

3.4.1 Hazardous Waste, Hazardous Material, Recyclable Material

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 409 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.

Recyclable materials from industrial facilities are collected in the recycling facility, in building 671. Paper, cardboard, and wood are collected in separate storage bins. Glass, plastics and metal cans are commingled. Curbside containers are used in housing for recyclable materials. A contractor collects these materials and transports them off base for processing.

The Environmental Management Flight manages the hazardous material through a contract with Science Applications International Corporation (SAIC). 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.

3.4.2 Underground and Above Ground Storage Tanks

Since Grand Forks AFB is a military installation with a flying mission, there are several aboveground and underground fuel storage tanks (ASTs and USTs).

Gasoline, diesel fuel, heating fuel, JP-8, and oil-water separator (OWS)-recovered oils are stored in thirty-nine (39) USTs. Twenty (20) regulated USTs include three (3) gasoline tanks, eight (8) diesel tanks, three (3) JP-8 tanks, and six (6) OWS product recovery tanks. Deferred USTs
include five (5) JP-8 tanks. Five (5) USTs exempt from regulation include one (1) heating oil tank, four (4) emergency spill containment tanks, and one (1) hydraulic oil recovery tank.

Gasoline, diesel fuel, heating oil, JP-8, and used oil are stored in fifty-eight (58) ASTs. The majority of petroleum is JP-8 stored in six (6) tanks with a capacity of 3,990,000 gallons for the hydrant fuel system. Diesel fuel is stored in forty-five (45) tanks primarily for emergency generators. Other tanks include: heating oil stored in three (2) tanks; gasoline stored in two (2) tanks; and, used oil stored in three (3) tanks. All ASTs either have secondary containment or are programmed to have secondary containment installed. The six (6) hydrant fuel system tanks each are contained by a concrete dike system.

Runway deicing fluid (potassium acetate) is stored in two (2) 5000 gallon tanks while aircraft deicing fluid (propylene glycol) is stored in a 20,000 gallon tank (Type I) and a 4,000 gallon tank (Type IV). A map reflecting the locations of USTs and ASTs is enclosed in Appendix C.

3.4.3 Solid Waste Management

Hard fill, 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.

The majority of demolition debris is disposed of at Berger Landfill (permit number IT-198) while municipal waste and asbestos waste is disposed of at the Grand Forks Landfill (SW-069).

GFAFB also operates a land treatment facility (IT-183) for the remediation of petroleum-contaminated soils (PCSs). PCSs are generated on-base through spills, are encountered while excavating for various subsurface repairs, or encountered while replacing or removing underground storage tanks and piping. A map reflecting the location of the land treatment facility is found in Appendix C.

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 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 (ft$^3$/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 the location of floodplains and the sanitary sewage lagoons. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency (FEMA). The North Dakota State Water Commission requires that any structure in the floodplain have its lowest floor above the identified 100-year flood level.

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 Kelly's 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.

Kelly’s Slough National Wildlife Refuge (NWR) was established to develop and manage a system of wetlands and grasslands that is unique to the Red River valley. The Refuge supports a diversity of wetland and grassland wildlife, while providing for wildlife-dependent recreation, interpretation, and education. Kelly’s Slough NWR is located in the heart of the Red River valley. The Refuge contains an intermittent stream that flows into the Turtle River, a tributary of the Red River.

In 1936, President Franklin D. Roosevelt established Kelly’s Slough NWR "as a refuge and breeding ground for migratory birds and other wildlife." Kelly’s Slough NWR is considered an excellent area to view migratory and breeding water birds. Twelve species of ducks have been found nesting on the Refuge. Giant Canada geese and a variety of shorebirds are also common on Kelly’s Slough NWR and surrounding lands. A 3-year study initiated in 2000 documented an average annual population of almost 36,000 shorebirds representing 22 species. The Refuge staff manages eight wetland management pools, comprising 936 acres on the Refuge and adjacent waterfowl production areas (WPA). The remaining uplands are predominately grasslands.

Since the 1960s, the U.S. Fish and Wildlife Service (Service) has been purchasing lands around the original Refuge with Federal Duck Stamp money and developing these into waterfowl production areas (WPA). In 1991, the Service, with the help of Ducks Unlimited, began constructing several dikes and water control structures with funding from two North American Waterfowl Management Plan grants. Recent and future land purchases are aimed at acquiring land needed to develop more managed pools on the Refuge.

Refuge wetlands are managed to provide a variety of water depths. Selected pools may be drained slowly to provide mudflats - moist soil areas with little or no vegetation. These areas are attractive to most shorebirds. Water levels in other pools are maintained throughout the summer months as brood-rearing habitat for nesting waterfowl. In the fall, Refuge staff often discharge water from pools to make shallow staging areas for migratory birds and to make room for the following spring's runoff. This management action allows the Refuge wetlands to store as much water as possible during peak spring flows, and reduce the potential for flooding in communities downstream.

Refuge staff also manages upland areas on the Refuge and nearby WPA’s. These areas consist mainly of introduced, cool-season grasses and forbs. These areas are managed using prescribed burning, farming, and haying. Native grasses and forbs have been re-planted on some WPA’s. Three islands have been constructed in two of the Refuge's managed wetlands. These 1-acre
islands provide relatively safe nesting areas for species such as mallards, gadwalls, lesser scaup, and Canada geese. Predator trapping is done on Refuge uplands to increase nesting success for ground-nesting birds.

Kelly’s Slough NWR covers portions of Blooming, Lakeville and Rye Townships of Grand Forks County. The main parking area is 8 miles west and 3 miles north of Grand Forks, North Dakota. Signs on U.S. Highway 2 direct visitors to the Refuge, where there is a parking area, an elevated viewing platform, several informational signs, and two walking trails.

School groups and individuals may use the WPA’s as outdoor year-round classrooms. Individuals must take care during the breeding season, May through July, to avoid damaging nests, plants, and other habitat. Kelly’s Slough NWR is closed to all public access, except walking on the short trail system near the main observation platform.

Interpretive panels are installed on two turnouts along the gravel road leading to the main parking area. These turnouts are great locations for viewing wildlife. The panels provide information on area wildlife and wildlife habitat. Interpretive panels and a telescope can also be found on the elevated observation platform near the main parking area. These panels provide information on the U.S. Fish and Wildlife Service and the Refuge. The 20-power scope is available for year-round use. There is no charge for using this commercial-grade, permanently mounted telescope.

Three short walking trails can be found on Kelly’s Slough NWR. These trails offer the opportunity to view wildlife and the landscape away from roads and vehicle traffic. Two of the trails originate at the main parking area. Both of these trails are less than 1/4 mile in length and are about 8 feet wide, surfaced with gravel and secured with railroad ties along the edges of the trails. A third similarly constructed trail lies about 2 miles north and 1 mile west of the main parking area. There is a small parking area at the head of this 300-foot trail and an elevated viewing platform at the end of the trail. There are no rest room facilities on the Refuge, but the town of Emerado and the city of Grand Forks are less than 10 miles away and offer several establishments with rest rooms.

Hunting and trapping, in accordance with North Dakota state seasons, are permitted on WPA’s. Only foot travel is permitted. Motorized traffic is strictly prohibited on Refuge lands. Waterfowl and white-tailed deer are the most popular species pursued in the area. Upland game birds, such as Hungarian partridge and sharp-tailed grouse, are also present. Trapping opportunities exist for red fox, raccoon, and muskrat.

Kelly’s Slough NWR is managed by the Devils Lake Wetland Management District. The District office is located in the city of Devils Lake, North Dakota at 221 2nd Street West. Devils Lake is located at the intersection of U.S. Highway 2 and North Dakota Highway 20, approximately 90 miles west of Grand Forks, North Dakota. The District headquarters in Devils Lake is open from 8:00 am to 4:30 pm, Monday through Friday, except on Federal holidays. There is no visitor contact station at the Refuge. The Refuge is open to allowable uses 24 hours daily. Camping is prohibited. The Refuge does not charge an entrance fee. The Refuge does
not charge user fees (i.e., hunt fees, camping fees, boat launch, meeting rooms rental fees, auto tour fees, guided tour fees, etc.).

3.5.2 Waste Water

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 though October. Industrial wastewater at the base comprises less than ten percent of the total flow to the treatment lagoons. A map reflecting the location of the sanitary sewage lagoons is found in Appendix C.

3.5.3 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 Engineer 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.

3.5.4 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. Earlier surveys indicated Grand Forks AFB had 49 wetlands, covering 23.9 acres of wetlands, including 33 jurisdictional wetlands covering 12.2 acres. A wetland delineation conducted in 2004 indicated that the base had increased to 192 wetlands containing 301 acres. They include one Riverine wetland totally 3 acres in Turtle River, one Palustrine Emergent Wetland (PEM)/Lacustrine wetland totally 47 acres, and 190 Palustrine Wetlands totally 251 acres consisting of 32 Scrub-shrub wetlands at 76 acres, 3 Forested Wetlands at approximately <1 acre, and 155 Emergent Wetlands at 174 acres. 145 acres are identified as jurisdictional.

Vegetation is robust at GFAFB wetlands, and they are characterized as typical prairie potholes found within the northern plains ecoregion. Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in

31
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. A map reflecting the locations of wetlands and the lagoons is enclosed in Appendix C. Development in or near these areas must include coordination with the ND State Water Commission and the USACE. To help preserve wetlands, the North Dakota, Grand Forks County regional office of the Natural Resource Conservation Service recommends a 100-ft vegetated (grass) buffer with a perimeter filter strip.

3.6 BIOLOGICAL RESOURCES

3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Hay land, wildlife management areas, waterfowl production areas, neighboring wildlife refuges, state parks, and conservation reserve program land have created excellent grassland and wetland habitats for wildlife in Grand Forks County. Pastures, meadows, and other non-cultivated areas create a prairie-land mosaic of grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, brome grass, Kentucky bluegrass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as Juneberry, dogwood, hawthorn, buffaloberry, and snowberry also are found in the area. In wetland areas, predominant species include Typha sp., 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. The Natural Heritage Inventory through field investigations has identified ten natural communities occurring in Grand Forks County (1994). Of these, two communities are found within base boundaries, River/Creek and Lowland Woodland. The River/Creek natural community refers to the Turtle River. This area is characterized by submergent and emergent aquatic plants, green algae, diatoms, diverse invertebrate animals such as sponges, flatworms, nematode worms, segmented worms, snails, clams, and immature and adult insects, fish, amphibians, turtles, and aquatic birds and mammals. Dominant trees in the Lowland Community include 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 under story in this area. Wood nettle (Laportea canadensis), stinging nettle (Urtica dioica), beggars’ ticks (Bidens frondosa), and waterleaf (Hydrophyllum virginianum) are typical forbes.

A prairie restoration project in the “Prairie View Nature Preserve” has been developed to restore a part of the native tallgrass prairie that once was dominant in this region. Plants thriving in this preserve include western wheatgrass, slender wheatgrass, big bluestem, little bluestem, Indian grass, switchgrass, blue gramma, buffalo grass, and many native wildflower species. The Grand Forks AFB Natural Resources Manager installed a butterfly garden in the Prairie View Nature
Preserve in the fall of 2005, on National Public Lands Day. Volunteers helped plant the 1,300 square foot garden with about 50 different perennial varieties and shrubs.

Two hundred and fifty five taxa were identified in the ND Natural Heritage Inventory and the BS Bioserve biological inventory update for Grand Forks Air Force Base. Two rare orchid species are known to exist on Grand Forks AFB, the Large and Small Yellow Lady’s Slipper, identified during the 2004 inventory.

3.6.2 Wildlife

Grand Forks County is agrarian in nature, however it does have many wildlife management areas, waterfowl production areas, conservation reserve program land, and recreational areas providing excellent habitat for local wildlife 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 thousands of migratory birds, especially shorebirds. 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.

The base supports a remarkable diversity of wildlife given its size and location within an agricultural matrix. The Turtle River riparian corridor, Prairie View Nature Preserve, grassland areas on the west side of the base, and the lagoons to the east of the base all provide important habitat for native plant and wildlife species and should be conserved as such within mission constraints. Many mammalian species are found on base such as the white tail deer, eastern cottontail, coyotes, beaver, raccoons, striped skunks, badgers, voles, gophers, shrews, mice, muskrat, squirrels, bats, and occasional moose and bear.

One hundred seventy bird species were identified in the 2004 biological survey, many of which include grassland bird species. Grassland bird populations are declining across North America due to huge losses of prime grassland habitat from conversion to agricultural, urban, and industrial development. No other avian group has experienced such dramatic losses as grassland birds. GFAFB is fortunate to support a large variety of grassland birds, many of which are listed on the Partners-in-Flight species of concern list, such as the grasshopper sparrow. Large blocks of grassland should be conserved to protect these grassland bird species if the mission constraints allow it.

3.6.3 Threatened and Endangered Species

According to the Biological Survey Update 2004 of GFAFB, 21 state-listed birds and 1 federally listed bird species, 2 state-listed plant species, 1 state-listed mammal species, and 1 state-listed amphibian have been identified at GFAFB. The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle, but there are no critical or significant habitats for those species present. Several rare and state-listed species have been observed on base near Turtle River, the lagoons, and the grassland to the west of the airfield. 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 Sep 2005, Grand Forks AFB had 2,665 active duty military members and 398 civilian employees. The total annual economic impact for Grand Forks AFB is $353,592,679.

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. They include abandoned farmsteads and isolated historical artifacts. 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, 704, 705, 706, 707, and 714. A map of cultural resource survey areas and the probability to occur is found in Appendix B.

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 ball fields, 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 out leased 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 of the base.

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 vehicles 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 serves the passenger traffic; and the south gate is connected to Eielson Street (St), which is the main north-south road and serves the truck traffic.

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 mercury, 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 Environmental Restoration Program

The Environmental Restoration Program (ERP) 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 ERP 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). A map reflecting the locations of ERP and Solid Waste Management Unit (SWMU) sites is enclosed in Appendix C.

The North Dakota State list of CERCLA sites includes Grand Forks AFB, and Grand Forks locations Defense Fuel Support Point, Williams Pipeline Company 1 mile east of Junction Hwy 212 & 81, UND Radioactive Waste Site 14 miles west, AGSCO Landfill on North Mill Road, Haynes Warehouse at 5 miles west and 2 miles south, Kittson & DeMers Town Gas, and 1st Ave S & Cottonwood Town Gas. The nearest site is GFAFB at 4 miles.

In September 1993, the US EPA, Region VIII Superfund Program submitted a Site Inspection to the Department on Grand Forks Air Force Base. The report identified solid waste management
units at the Base. Many of these units were being addressed under the Installation Restoration Program being conducted by the Department of Defense. Grand Forks Air Force Base is a RCRA-permitted facility. The Department modified the RCRA permit to include the corrective action provisions. Many of the units that were identified in earlier work were identified for corrective actions under the state-issued RCRA permit. Work is progressing in stages as funding for corrective actions and other management activities becomes available from DOD. In early 1996, EPA proposed to list GFAFB on the National Priorities List of CERCLA sites (NPL). EPA is currently under a moratorium and cannot add any additional sites to the NPL without the recommendation of the governor of the location state. As of June 20, 1996, neither the Department nor the Governor of North Dakota has indicated any desire to place GFAFB on the NPL.

In November 1994, the US EPA, Region VIII Superfund Program authorized its ARCS Contactor (Morrison Knudsen Corporation) to prepare a sampling plan for the AGSCO landfill site on North Mill Road. The contractor prepared the plan, which was approved by EPA in March 1995. In May 1995, the sampling event was conducted. EPA submitted the Analytical Results Report to the Department in October 1995. The report identified that there was some level of pesticide contamination discovered in the English Coulee and the Red River sediment samples. Based upon the information in the report, EPA chose to leave the site file open and active. If any concerns are generated in the future, the site may be re-evaluated. As of June 20, 1996, the Department has not undertaken any actions or site characterizations which would require further EPA actions or involvement.

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 that 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 picloram, nonselective glyphosate and 2, 4-D are used to maintain areas on base. 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 on-base 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 75.2 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 of 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 project involves demolition of building 934 on Grand Forks AFB.

4.2 AIR QUALITY

4.2.1 Alternative 1 (No Action)

The no action alternative would not impact air quality.

4.2.2 Alternative 2 (Proposed Action)

No long-term effects; however short term effects involve heavy construction equipment emissions (not a concern as they are mobile sources) and fugitive dust (mentioned on our Title V permit). Air Quality is considered good and the area is in attainment for all criteria pollutants. Fugitive emissions from demolition activities are expected to be below the regulatory threshold and would be managed in accordance with NDAC 33-15-17-03. Best management practices (BMPs) to reduce fugitive emissions would be implemented to reduce the amount of these emissions.

4.2.3 Alternative 3

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

4.3 NOISE

4.3.1 Alternative 1 (No Action)

The no action alternative would not impact noise generation.

4.3.2 Alternative 2 (Proposed Action)

The short-term operation of heavy equipment in the demolition area would generate additional noise. These noise impacts would exist only during operations and would cease after completion. The increase in noise from activities would be negligible.

4.3.3 Alternative 3

Impacts would be similar to those generated under the proposed action.
4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

4.4.1 Alternative 1 (No Action)

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

4.4.2 Alternative 2 (Proposed Action)

The increase in hazardous and solid wastes from demolition of building 934 would be temporary. An approximate 106,000 pounds of debris would be generated. Solid waste debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 8 miles of the proposed site. The flat, asphalt roof in Building 934 is assumed to be non-friable, non-regulated, asbestos-containing-material. All solid waste materials would be managed and transported in accordance with the state’s solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are encouraged by the State of North Dakota. Inert waste should be segregated from non-inert waste, where possible, to reduce the cost of waste management. There is potential that nearby farmsteads would have storage tanks and containers of petroleum products, farm chemicals, and other hazardous materials. Provided best management practices are followed, there should have no impact on the demolition of 934.

4.4.3 Alternative 3

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

4.5 WATER RESOURCES

4.5.1 Alternative 1 (No Action Alternative)

The no action alternative would have no impact on groundwater, surface water, wastewater, water quality, or wetlands.

4.5.2 Alternative 2 (Proposed Alternative)

Groundwater: Provided best management practices are followed, there would be minimal impacts on ground water.

Surface Water: Surface water quality could be degraded, both in the short-term, during actual construction, in the immediate area. The short-term effects come from possible erosion contributing to turbidity of runoff and possible contamination from spills or leaks from construction equipment. The contractor must utilize effective methods to control surface water runoff and minimize erosion. Proper stabilization and seeding the site immediately upon completion of the construction would provide beneficial vegetation, controlling erosion. Provided best management practices are utilized during design and construction, negative surface water impacts should be minimal. There is a road side ditch on the south side of the area, so close attention must be made to grading the slope correctly to allow proper water flow.
**Wastewater:** The proposed action would have no impact on wastewater.

**Water Quality:** Provided containment needs are met and best management practices are used, the proposed action would have minimal impact to water quality.

**Wetlands:** There are no wetlands in this area. The Kelly’s Slough Wildlife Refuge is two miles north and northwest of the area. Activity in any wetlands cannot occur without a Clean Water Act section 404 permit from the Army Corps of Engineers. No dumping, filling, dredging, or changing of the wetland hydrologic structure is permitted without a permit. The proposed action would have no direct impact on wetlands provided BMP’s are utilized during design and construction. There is a roadside ditch on the south side of the area, so close attention must be made to grading the slope correctly to allow proper water flow.

4.5.3 Alternative 3

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

4.6 BIOLOGICAL RESOURCES

4.6.1 Alternative 1 (No Action)

The no action alternative would not impact wildlife, vegetation, or other biological resources.

4.6.2 Alternative 2 (Proposed Action)

**Vegetation:** BMPs and control measures, including covering of stockpiles and drain openings, would be implemented to ensure that impacts to biological resources be kept to a minimum. The amount of vegetation disturbed would be kept to the minimum required to complete the action. Disturbed areas should be re-established with native vegetation. There would be a short-term minimal loss of vegetation from demolition activities, and a gain of the building footprint that is to be reseeded to grass.

**Noxious Weeds:** Public law 93-629 mandates control of noxious weeds. Limit possible weed seed transport from infested areas to non-infested sites. Avoid activities in or adjacent to heavily infested areas or remove seed sources and propagules from site prior to conducting activities, or limit operations to non-seed producing seasons. Wash or otherwise remove all vegetation and soil from equipment before transporting to a new site. Mitigate activities which expose the soil by covering the area with weed seed free mulch and/or seed the area with native species. Covering the soil would reduce the germination of weed seeds, maintain soil moisture, and minimize erosion. If any fill material is used, it should be from a weed-free source.

**Wildlife:** Demolition would have minimal impacts to wildlife. These areas provide foraging habitat for small mammals, such as mice and rabbits. The area is improved and frequently maintained by the utilities maintenance personnel. Due to the abundance and mobility of these species and the profusion of similar landscaped areas in the general vicinity, any wildlife
Threatened or Endangered Species: According to the Biological Surveys of 1994 and 2004, and bird surveys of 2001, 2004, and 2005, Grand Forks AFB has 56 bird species of concern: 1 federally threatened, 8 state threatened and endangered, 29 state species of concern, 17 USFWS birds of conservation concern, and 22 DOD partners-in-flight species. In addition, referencing the 1994 and 2004 biological surveys, there are 2 state-listed plant species, 1 state-listed mammal species, and 1 state-listed amphibian identified at GFAFB. The only federally threatened species existing in Grand Forks County are the bald eagle and the gray wolf. These species are generally transients in the area, and the proposed site contains no federally listed habitat. These species should not be affected by the proposed action.

4.6.3 Alternative 3
Impacts would be similar to those generated under the proposed action.

4.7 SOCIOECONOMIC RESOURCES

4.7.1 Alternative 1 (No Action)

The no action alternative would not impact socioeconomics.

4.7.2 Alternative 2 (Proposed Action)

Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, minimal beneficial impact to local retailers during the demolition phase of the project.

4.7.3 Alternative 3
Impacts would be similar to those generated under the proposed action.

4.8 CULTURAL RESOURCES

4.8.1 Alternative 1 (No Action)

The no action alternative would not impact cultural resources.

4.8.2 Alternative 2 (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. The building is nearly old enough for National Historic Preservation Act eligibility determination, but has no historical importance or significance. A notice of demolition to the SHPO to solicit any comments must be completed.
before the building is demolished. Correspondence with the State Historic Preservation Officer will be accomplished to coordinate a No Historic Properties Affected determination.

4.8.3 Alternative 3

Alternative impacts would be similar to those generated under the proposed action.

4.9 LAND USE

4.9.1 Alternative 1 (No Action)

The no action alternative would not have an impact on land use.

4.9.2 Alternative 2 (Proposed Action)

The proposed operation would change the land use from site of an industrial building to an open area with potential for another use. The disposition of the land is not addressed in the proposed action.

4.9.3 Alternative 3

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

4.10 TRANSPORTATION SYSTEMS

4.10.1 Alternative 1 (No Action)

The action would not impact transportation.

4.10.2 Alternative 2 (Proposed Action)

The proposed action would have minimal adverse impact to transportation systems due to vehicles traveling to and from building 934 during demolition.

4.10.3 Alternative 3

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

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Alternative 1 (No Action)

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

4.11.2 Alternative 2 (Proposed Action)
The proposed action would not impact aircraft safety or airspace compatibility.

4.11.3 Alternative 3
Impacts would be similar to those generated under the proposed action.

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Alternative 1 (No Action)
The no action alternative would not impact safety and occupational health.

4.12.2 Alternative 2 (Proposed Action)
The proposed action would have minimal impact on safety and occupational health. Participants are required to wear appropriate personnel protective equipment (PPE).

4.12.3 Alternative 3
Impacts would be similar to those generated under the proposed action.

4.13 ENVIRONMENTAL MANAGEMENT

4.13.1 Alternative 1 (No Action)
The no action alternative would not impact ERP Sites or geological resources.

4.13.2 Alternative 2 (Proposed Action)
ERP: The proposed action would not impact ERP Sites. The State list of CERCLA sites includes Grand Forks AFB, and Grand Forks locations Defense Fuel Support Point, Williams Pipeline Company 1 mile east of Junction Hwy 212 & 81, UND Radioactive Waste Site 14 miles west, AGSCO Landfill on North Mill Road, Haynes Warehouse at 5 miles west and 2 miles south, Kittson & DeMers Town Gas, and 1st Ave S & Cottonwood Town Gas. The nearest site is GFAFB at 4 miles.

Geology: The proposed action would not impact geological resources.

Pesticides: No pesticides would be used during the demolition of building 934.

4.13.3 Alternative 3
Impacts would be similar to those generated under the proposed action.

4.14 ENVIRONMENTAL JUSTICE
4.14.1 Alternative 1 (No Action)

The no action alternative would not impact environmental justice.

4.14.2 Alternative 2 (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 or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

4.14.3 Alternative 3

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

4.15 INDIRECT AND CUMULATIVE IMPACTS

The short-term increases in air emissions and noise during demolition 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 activities in the area would produce an increase in solid waste generation; however, the increase would be limited to the timeframe of each project. The area landfills used for construction and demolition debris do not have capacity concerns, and could readily handle the solid waste generated by the various projects.

4.16 UNAVOIDABLE ADVERSE IMPACTS

The proposed action and alternatives would involve the use of demolition related vehicles, and their short-term impacts on noise, air quality, and traffic are unavoidable.

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

The proposed action and alternatives 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 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, and other recovery materials related to the demolition of building 934 would be irreversibly lost.
5.0 LIST OF PREPARERS

Steve Braun
USTs and Special Programs
319 CES/CEVC
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Everett “Gene” Crouse
Chief, Airfield Management
319 OSS OSAA
695 Steen Blvd
Grand Forks AFB ND  58205

Diane Strom
NEPA/EIAP Program
319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Mark Hanson, Attorney
Chief, General Law
319 ARW/JA
460 Steen Blvd
Grand Forks AFB ND  58205

Gary Johnson
Ground Safety Manager
319 ARW/SEG
679 4th Avenue (Ave)
Grand Forks AFB ND  58205

Chris Klaus
Water Programs Manager
319 CES/CEVC
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Heidi Nelson
Community Planner
319 CES/CECP
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Larry Olderbak
Environmental Restoration Manager
319 CES/CEVR
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Gary Raknerud
Chief, Pollution Prevention
319 CES/CEVP
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Kristen Rundquist
Natural Resources/Air Program Manager
319 CES/CEVC
525 Tuskegee Airmen Blvd
Grand Forks AFB ND  58205

Jeffrey L McClellan, 2d Lt, USAF, BSC
Bioenvironmental Engineer
Bioenvironmental Engineering Flight
319AMDS/SGGB
1599 J St
Grand Forks AFB ND  58205
6.0 LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES

Dr. Terry Dwelle
State Health Officer
North Dakota Department of Health
600 East Boulevard Ave
Bismarck ND 58505-0200

Mr. Terry Steinwand
Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck ND 58501

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

Mr. Larry Knudtson, Planning
North Dakota State Water Commission
900 E Boulevard Ave, Dept 770
Bismarck ND 58505-0850

Mr. Jeffrey Towner
U.S. Fish & Wildlife Service
3425 Miriam Avenue
Bismarck ND 58501
7.0 REFERENCES


Dunn, Curtis, 2001. Personal communication. ND Department of Transportation, Grand Forks District Office.


NDDH, 2001. Division of Air Quality, Asbestos Control Program. www.health.state.nd.us


ND Natural Heritage Inventory and ND Parks and Recreation Department. Grand Forks AFB, ND, Biological Survey. 1994.


US AFI 32-7061, as promulgated in 32 C.F.R. 989, EIAP


USAF, 1999. Final EIS for Minuteman III Missile System Dismantlement at Grand Forks AFB, ND. April


USAF, 1997b. Management Action Plan for Grand Forks AFB.


USAF, 1995. AICUZ Study at Grand Forks AFB, ND.


APPENDIX A
LOCATION MAP – GRAND FORKS AFB
AND
LOCATION MAP OF BUILDING 934
Grand Forks AFB, ND
Booster Station is located along north side of Highway 2 between Grand Forks AFB and city of Grand Forks.
Nearby farmsteads are ½ mile west, ¾ mile south, and one mile east of Booster Station.
Booster Station is 1.5 mile south and SW of Kelly Slough Wildlife Refuge
Booster Station is 4.2 mile East of the GFAFB and Emerado exit; and five miles west of GF Airport exit.
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

Page Number: 3-18
Figure Number: 3.5
Date: 5-16-02
Created By: rp/bc
File: y:\projects\federal\air force\grand forks...
APPENDIX C
ENVIRONMENTAL SITE MAP
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

08 May 01/KS
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

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

08 May 01/ks
Grand Forks AFB Environmental Sites (SW)

- 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
- Wetlands

Hydrography-flood zone area

floodplain zone centroid
APPENDIX D
AF FORM 813
REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

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/CEOIU
2a. TELEPHONE NO. 701-747-5200

3. TITLE OF PROPOSED ACTION
Demolish building 934

4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)
The purpose of this project is to demolish Building 934 and its associated subsurface piping, which would eliminate required weekly facility inspections and the need to secure and maintain the facility. See reverse.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)
Building 934, its foundation, all plumbing and piping, subsurface piping, fence and gate will be demolished and removed from the site. See reverse.

6. PROPONENT APPROVAL (Name and Grade)
MARY C. GILTNER, GM-13
Deputy Base Civil Engineer

6a. SIGNATURE

6b. DATE

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY.

7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)

8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)

9. WATER RESOURCES (Quality, quantity, source, etc.)

10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)

11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)

12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)

13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)

14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)

15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)

16. OTHER (Potential impacts not addressed above.)

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
Block 4: Purpose and Need for Action

4.1 Purpose:
The purpose of this project is to demolish Building 934 and its associated subsurface piping, fencing and gate. The cinder block structure is 24’ 8” x 24’ 8”. Building 934 no longer serves its original purpose as a booster station for the base drinking water supply. With the construction of the airport booster station and clear well at the Grand Forks water treatment plant, the city of Grand Forks has adequate facilities and back up facilities to provide an uninterrupted drinking water supply to the base.

4.2 Need for Action:
Building 934 is not needed to supply water to the base and has not been used since the city of Grand Forks completed its upgrades to their water distribution system. Due to its location north of Highway 2 between Grand Forks AFB and the airport, four miles east of County Road 3 & U.S. 2 junction, the building potentially poses a security risk to the base's drinking water supply system. The structure is a liability to the Utilities shop due to required weekly facility inspections and the need to secure and maintain the facility.

Block 5: Description of Proposed Action and Alternatives

5.1 No Action Alternative A:
Under the no action alternative, Building 934 would remain abandoned in place. Utility personnel would continue to do weekly inspections of the facility and maintain the exterior for aesthetic reasons only. The facility would continue to remain unused for water distribution purposes and serve no use to the base water supply system. The base would continue the maintenance liability and square footage authorization that could be better used for other utility facilities.

5.2 Proposed Action B:
Under the proposed action, Building 934, its foundation, all plumbing and piping, subsurface piping, fence and gate will be demolished and removed from the site. Blind flanges will be installed on the 14” inlet and outlet lines to the facility as indicated on the attached drawing. Excess fill material needed will be native soil and a restoration of the facility footprint with native vegetation will be completed. Estimated fill material needed is under 20 cubic yards. GFAFB would lose the maintenance liability and gain square footage for other utility facilities.

5.3 Alternative Action C:
The government owns 0.06 acres (2,614 square feet) of land that Building 934 is on. The cinder block structure is 24’ 8” x 24’ 8”. The pumps, piping, electrical and plumbing works inside the facility could be removed and capped and the structure could potentially be used by another user on base or leased to the adjacent land owner. GFAFB would maintain the maintenance liability and square footage authorization that could be better used for other utility facilities.

5.4 Decision:
Grand Forks AFB must decide whether or not to demolish Building 934. The facility serves no purpose to the base water distribution system. The city of Grand Forks has adequate water distribution and back up capabilities to supply the base with treated drinking water.

5.5 Permits: Demolition permit.
Highway 2

14” water main from Grand Forks

Direction of flow

Demo BLDG 934, Foundation, and All plumbing, pumps, And equipment

Install 14” blind flanges
APPENDIX F
REAL PROPERTY RECORDS
PREVIOUS EDITIONS OF THIS FORM WILL BE USED UNTIL STOCK IS EXHAUSTED.

REAL PROPERTY ACCOUNTABLE RECORD - LAND

<table>
<thead>
<tr>
<th>VOUCHER NO.</th>
<th>DATE</th>
<th>DESCRIPTION</th>
<th>MAP REFERENCE NO.</th>
<th>IMPROVED</th>
<th>OTHER</th>
<th>TOTAL</th>
<th>COST/TERMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>750087</td>
<td>31Mar75</td>
<td>Water Line Tract # 200</td>
<td></td>
<td></td>
<td></td>
<td>0.069</td>
<td>0</td>
</tr>
</tbody>
</table>

**REMARKS**

1. Tract 200 consisting of 0.069 of an acre, more or less, was acquired by
   Warranty Deed dated 26 July 1972 and recorded 2 December 1974. Grantor was
   City of Grand Forks, a municipal corporation. The Warranty Deed conveys the
   booster station and the land on which it is located in Section 35, Township
   25 North, Range 53 West, Grand Forks County, North Dakota. The City of Grand
   Forks did not wish to retain any interest in this parcel because it was the
   only land owned by the City in the immediate area and was purchased specifically
   for the booster station.

BALANCES FORWARDED
1. Tract 200 consisting of 0.069 of an acre, more or less, was acquired by Warranty deed dated 26 July 1972 and recorded 2 December 1974. Grantor was City of Grand Forks, a municipal corporation. The Warranty deed conveys the booster station and the land on which it is located in Section 35, Township 113 North, Range 36 West, Grand Forks County, North Dakota. The City of Grand Forks did not wish to retain any interest in this parcel because it was the only land owned by the City in the immediate area and was purchased specifically for the booster station.

2. Tracts 200E-1-2-3 consisting of 0.32 of an acre, more or less, were acquired by easement dated 26 July 1972 and recorded 2 December 1974. The easement gives the United States the right to enter upon City property to maintain and operate the water booster station and waterline situated in the NE2/4 of Section 6, Township 351 North, Range 50 West, Grand Forks County, North Dakota. The City owns the land immediately surrounding this booster station and wishes to retain ownership of the entire tract in order to put it to other use in the event of the abandonment of the booster station by the Government.

3. Deed of Transfer, assigned File No. 36745 by Register of Deeds of Grand Forks County, is in actuality a bill of sale which transfers to the United States the ownership of a second water booster station and waterline located in the NE2/4 of Section 6, Township 351 North, Range 50 West. The Deed of Transfer also transfers to the Government the ownership of approximately 14 miles of 14-inch water pipeline extending southerly and westerly from the Grand Forks Air Force Base south to the west end of the Southeast corner of Section 31, Township 351 North, Range 50 West. The Deed of Transfer was recorded. The personal property under the provisions of M 39-50, North Dakota Century Code, to avoid the possibility of losing the realty title.

4. Tract 2907 was acquired by Permit No. 2907 dated 3 April 1973 from North Dakota State Highway Department which transfers Permit No. 345 issued to the City of Grand Forks permitting the Department of the Army to install and maintain the waterline along and across U.S. Highway No. 2. Permit No. 2907 was not recorded.

5. There is no tenant on the tracts. There are improvements, which are described in Exhibit 2907 attached, and for which the Air Force will be the responsible agent.

J. S. AUGELLO
Chief, Acquisition Branch
THIS INDENTURE, Made this 26th day of July A.D. 1972
between the CITY OF GRAND FORKS, a municipal corporation,

(a corporation under the laws of the State of North Dakota), party of the first part,

the United States of America

and

of the second part,

WITNESSETH, That the said party of the first part, in consideration of the sum of One Dollars
and other good and valuable consideration

being in the County of Grand Forks and State of North Dakota, described as follows, to-wit:

Commencing at the southwest corner of Section 35, Township 152 N., Range 52 W.; Thence in an easterly direction along the section line a distance of 629.65 feet; Thence deflecting left 90°00'00" in a northerly direction a distance of 506.30 feet to a point on the North Dakota State Highway Department right-of-way line, which point is true point of beginning for the tract to be described; Thence North in a northerly direction a distance of 60 feet; Thence deflecting right 90°00'00" in a westerly direction a distance of 50 feet to a point on the North Dakota State Highway Dept. right-of-way line; Thence deflecting right 90°00'00" in a westerly direction a distance of 156 feet to the true point of beginning. The above described tract lying entirely in Section 35, Township 152 N., Range 52 W. of the Fifth Principal Meridian, Blooming Township and containing 0.069 acres.

TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances
thereunto belonging or in anywise appertaining, to the said party of the second part, its successors
and assigns, FOREVER. And the said CITY OF GRAND FORKS

party of the first part, for itself and its successors, does covenant with the said party of the second part,
TO HAVE AND TO HOLD THE SAME, Together with all the hereditaments and appurtenances thereof, belonging or in any way appertaining, to the said part \footnote{X} of the second part, \footnote{Y} its successors, heirs and assigns, FOREVER. And the said \footnote{Z} CITY OF GRAND FORKS, party of the first part, for itself and its successors, does covenant with the said part \footnote{X} of the second part, \footnote{Y} its successors, \footnote{Z} heirs and assigns, that it is well seized in fee of the lands and premises aforesaid and has good right to sell and convey the same in manner and form aforesaid; and that the same are free from all incumbrances, except installments of special assessments or assessments for special improvements which have not been certified to the County Auditor for collection.

\footnote{X} ...\footnote{Z}

\footnote{X} and the above bargained and granted lands and premises, in the quiet and peaceable possession of the said part \footnote{X} of the second part, \footnote{Y} its successors, \footnote{Z} heirs and assigns, against all persons lawfully claiming or to have the whole or any part thereof, the said party of the first part will WARRANT and DEFEND.

IN TESTIMONY WHEREOF, The said party of the first part has caused these presents to be executed in its corporate name by \footnote{X} Mayor, \footnote{Y} Clerk, \footnote{Z} City Auditor, \footnote{A} County Auditor, and its corporate seal to be hereunto affixed the day and year first above written.

\footnote{X} ...\footnote{Z}

Signed, Sealed and Delivered in Presence of

\footnote{X} ...\footnote{Z}
PoC1zmenf /  
UJIrt'  
~Y Deed-

On this 26th day of July, A.D. 1972, before me, Gordon Caldis, a notary public,  
in and for said County and State, personally appeared Cyril P. O'Neill and R.L. Lardal,  
to me known (proved to me on the oath of) to be the  
Mayor and City Auditor of the corporation that is described in, and that executed  
the foregoing instrument, and acknowledged to me that such corporation executed the same.  
Gordon Caldis, Notary Public  
My commission expires May 1, 1972  
Grand Forks County, North Dakota
THIS INDENTURE, made and entered into by and between the CITY OF GRAND FORKS, NORTH DAKOTA, a municipal corporation, hereinafter referred to as City, and the UNITED STATES OF AMERICA, hereinafter referred to as the United States, witnesses that in and for consideration of one dollar and other good and valuable consideration to it in hand paid by the United States, receipt whereof is hereby acknowledged, the City does hereby give and grant a perpetuity to said United States the right, privilege and authority to maintain, repair, reconstruct and operate a water booster station and water line, together with all necessary appurtenances thereto, in, under and through the property of said City described as follows:

A tract of land lying in the NE 1/4 NE 1/4 of Sec. 6, Twp. 151 N., Rng. 50 W., 5th P. M., said tract being described as follows:

Beginning at a point 40.0 ft. west and 96.0 ft. south of the northeast corner of said NE 1/4 NE 1/4, thence west 260.0 ft., thence south 70.0 ft., thence west 92.0 ft., thence north 40.0 ft., thence west 153.0 ft., thence north 30.0 ft., more or less to the point of beginning.

This tract contains 0.37 acres, or more or less, the above tract being part of a tract designated as Lot 2 of Airport Addition, to the City of Grand Forks, North Dakota.

All that portion of the NE 1/4 NE 1/4 of Sec. 6, Twp. 151 N., Rng. 50 W., 5th P. M., lying 5.0 ft. on either side of the following described water line in place as surveyed and staked over and across said property:

Beginning at a point 66.0 ft. south of the northeast corner of said Sec. 6, thence running west 40.0 ft., thence north 67.6 ft., thence west 168.5 ft., more or less to a point 22 inches south of the northeast corner of a water booster plant, and also a strip of land in the Sec. 6 being 10.0 ft. wide, lying 9.0 ft. north of the line of said water line centerline:

Beginning at a point 284.0 ft. west of the northeast corner of said Sec. 6, thence running south 108.5 ft., thence east 101.5 ft., thence south 5.0 ft., more or less to the north side of said water booster plant.

Water line tracts contain 0.04 acres, more or less, and are shown on the plat as a shaded area and labeled water line easement. The above tract being part of a tract designated as Lot 2 of Airport Addition to the City of Grand Forks, North Dakota.

Provision and authority herein granted shall be used for the purpose of maintaining the water booster station and water line.
For Grand Forks Air Force Base and for no other purpose.

The City agrees that at all times the United States shall have the right of access to said easement property for the purposes described herein.

Should the United States determine to permanently discontinue maintaining the water booster station and water line at the above described location, it is hereby understood that such determination shall constitute an abandonment thereof and of the permission herein granted whereby said booster station shall be forthwith terminated and all incidents of ownership therein shall be in the City of Grand Forks, North Dakota, a municipal corporation.

While this easement is in effect neither party shall assign its rights under this agreement without the written consent of both parties first had and obtained.

IN WITNESS WHEREOF, we hereunto set our hands and seals this the 26th day of July, 1972.

CITY OF GRAND FORKS, NORTH DAKOTA

By

Cygd. F. O’Neill, Mayor

Auditor

UNITED STATES OF AMERICA

By

STATE OF NORTH DAKOTA

COUNTY OF GRAND FORKS

On this 26th day of July, 1972, before me, a notary public in and for said county and state, personally appeared

Cygd. F. O’Neill and P.L. Leonard, to me known to be the Mayor and City Auditor of the corporation that is described in and that executed the foregoing instrument and acknowledged the same.

Gordon C. Wilson
Notary Public
Grand Forks County, North Dakota

My commission expires: May 1, 1975.
THIS Indenture, made and entered into by and between the CITY OF
GRAND FORKS, NORTH DAKOTA, a municipal corporation, hereinafter known as
the City, and the UNITED STATES OF AMERICA and its assigns, hereafter known
as the United States, witnesseth:

That in consideration of One Dollar ($1.00), or other
paid and value, for the consideration to it in hand paid by the United States,
receipt of which is hereby acknowledged, the City has bargained and
sold, and by these presents, does hereby assign, transfer, and vest
in perpetuity unto the United States, the following described chattels
and personal property:

Water tower station and waterline, together with all
necessary appurtenances thereto, in, under, and through Lot 2
of the 15th Addition to the City of Grand Forks, County of
Grand Forks, State of North Dakota, said City lying in the
NE¼ NE¼ of Section 6, Township 161 North, Range 59 West of the
Fifth Principal Meridian, and being particularly described as
beginning at K point 40.0 feet west and 96.0 feet south of the
southwest corner of said NE¼, thence running west 262.0
feet, thence north 70.0 feet, thence east 96.0 feet, thence
north 40.0 feet, thence east 163.0 feet, thence north 30.0 feet,
more or less, to the point of beginning.

Approximately fourteen miles (71,973.00 feet) of existing
fifteen-inch water pipeline extending southerly and easterly
from the Grand Forks Air Force Base in the section 34, Township 156 North, Range 53 West; across Sections 32, 33, 34,
31, 30, and 29 of Township 155 North, Range 54 West; continuing
across Sections 32, 33, 34, 35, and 36 of Township 155 North
through section 31, Township 162 North, Range 50 West to the South
line of main section 31 and the point of termination of said main
said point lying two hundred eighty-four (284) feet west of the
southeast corner of said section thirty-one (31).

To have and to hold the same unto the United States and its assigns
forever. And the City, for itself and its successors does covenant and
agree with the United States to warrant and defend the said chattels and personal property unto the United States and its assigns,
against all lawful claims.

IN WITNESS WHEREOF, the City of Grand Forks, North Dakota, has caused
these presents to be executed in its corporate name by its Mayor and its
City Auditor, and its corporate seal to be hereunto affixed this _ day
of __, 1974.

CITY OF GRAND FORKS, NORTH DAKOTA

BY: ____________

Feb 74
STATE OF NORTH DAKOTA
COUNTY OF GRAND FORKS

On this 11th day of February, 1974, before me, a Notary Public in and for said county and state personally appeared the undersigned O'Neill 1 and Mayor of the City of Grand Forks in and that executed the within instrument, and acknowledged to me that the corporation executed the same.

Notary Public

Department of the Army

of Omaha, Nebraska

The hereinnamed called the Applicant, is hereby granted permission to install and maintain the following described facilities on highway right of way, as shown on the plans attached hereto and made a part hereof:

Waterline along and across U.S. Highway No. 2 from Bismarck to Grand Forks, North Dakota.

INSTALLATION AND MAINTENANCE: Installation and maintenance of said facilities on highway right of way shall conform to the following provisions:

1. Within thirty (30) days after construction, maintenance, relocation or removal of said facilities, any right of way scar shall be removed and disturbed areas restored to original condition and resurfaced.

2.

3.

4.

5.

6. (SEE ATTACHED SHEET)

7.

8.

9.

10. This permit is issued to transfer Permit No. 385 from the City of Grand Forks to the above-named applicant.

TERMS AND CONDITIONS: Installation and maintenance of said facilities on highway right of way shall be subject to the following terms and conditions:

a. Installation, maintenance, relocation, and removal of said facilities on highway right of way shall be done in a manner satisfactory to the Chief Engineer for the State Highway Department.

Permit No. 0007

April 72
(2) The pipeline shall be installed under the surfaced section of the highway by boring or jackinjg pipe through the roadway between portal limits (line of alignment of highway, or thirty feet on either side), but boring or jetting of the pipe under the roadway is not permissible.

(3) The diameter of the hole for bored or jackinjg installations shall not exceed more than one (1) inch the outside diameter of the pipe. Over-sized bore or overbreaks, and unused holes shall be backfilled with caulk.

(4) Trenches opened within highway right of way shall be cut to have vertical faces where soil conditions permit, with a maximum width of the outside diameter of the pipe, plus two (2) feet, bearing shall be made where necessary. Open trenches and pits within the right of way shall be barricaded if left unattended.

(5) Trenches and pits opened within the right of way shall be backfilled with the same material originally in place and compacted to a density equal to that of the adjacent undisturbed soil, and restored to the original grade. The backfill shall be tamped in layers not exceeding six (6) inches in compacted thickness. Consolidation of the backfill by saturation or ponding is not permissible.

(6) Excavated material shall not be placed on the through-traffic lanes, shoulders, or landscaped of the highway. Any stored excavated material shall be removed from the right of way, or deposited on the right of way at a location approved by the State Highway Department.

(7) Vehicles and other work equipment used to install or maintain said facilities within highway right of way shall, where possible, use established service points, service roads, driveways, and approaches to enter or leave the outer portion of the right of way for the performance of necessary work operations. Such vehicles and work equipment shall not be parked on the through-traffic lanes or shoulders of the highway during installation or maintenance of said facilities.

(8) The top of manholes installed within the right of way shall be flush with the existing ground line of the highway or surface of the City street.

(9) "CAUTION" signs shall be placed on the shoulder of the highway on each approach to the site where the pipeline is to be installed across the highway. The signs shall be placed in clear view of on-coming traffic, and shall be covered or removed when work is not in progress.
(1) The State Highway Department shall not be liable for damage to said facilities resulting from reconstruction or maintenance of the highway. The State Highway Department shall not be liable for damage to property or injury to persons resulting from the location of said facilities on Highway Right of Way.

(2) Applicant shall repair or replace highway structures and appurtenances, and any existing facilities located in, over or under highway right of way, which may be damaged as a result of the installation and maintenance of said facilities on highway right of way.

(3) Applicant shall promptly remove said facilities from highway right of way, or shall relocate or adjust said facilities, at its sole cost and expense when requested to do so by the State Highway Department.

Approved by the State Highway Commissioner this 3rd day of April, 1973, at Bismarck, North Dakota.

[Signature]
State Highway Commissioner

[Approval Recommended]

[Signature]
State Highway Commissioner
APPENDIX G
PUBLIC NOTICE AND INTERAGENCY COMMENTS
Air Force Base

Public Notice

Grand Forks Air Force Base has proposed the demolition of building 934, a water pump booster station facility.

An environmental assessment has been conducted and a finding of no significant impact has been determined for this action.

Anyone wishing 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 or 747-5038.

April 20 & 22, 2006

AFFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA
COUNTY OF GRAND FORKS } SS.

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

That 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

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:

Yr. 2006 Yr. 2006 Yr. 2006
Yr. 2007 Yr. 2007 Yr. 2007
Yr. 2008 Yr. 2008 Yr. 2008

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 $18.75:

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 A.D. 2006.

Notary Public, Grand Forks, ND
The City of Grand Forks tends to enter into a single prime contract for the lowest total cost, subject to the provisions of the bid package. All other work contracts will be in accordance with the bid documents. The City of Grand Forks may, at its discretion, purchase goods and/or services, as required by the City, either from the lowest bidder or from other sources.

Disposition of contractor's tender at the Grand Forks Motor Homes and R.V. Park will be advertised to the public, including local newspapers, radio, and television. The City of Grand Forks will hold a public hearing on the request for final approval (fast track) of the replat of Lot 1, Block 1, Adams-Dodame Subdivision to the City of Grand Forks, North Dakota, located at North 55th Street and University Avenue.

The public hearing will be held May 3, 2006, at 7:00 p.m. in the City Council Chambers, City Hall, where all interested citizens will be heard. Any Agenda item requiring special accommodations to allow access or participation at this hearing is asked to notify the ADA coordinator at (746-2667) of their needs one week prior to the hearing.

Further information, please call 746-2661.

Dated this 14th day of April, 2006.
CITY PLANNING AND ZONING COMMISSION Brad Gengler, Planning Director

NOTICE OF PUBLIC HEARING

Notice is hereby given that Grand Forks Planning and Zoning Commission will hold a public hearing on the request for final approval (fast track) of the replat of Lot 1, Block 1, Adams-Dodame Subdivision to the City of Grand Forks, North Dakota, located at North 55th Street and University Avenue.

The public hearing will be held May 3, 2006, at 7:00 p.m. in the City Council Chambers, City Hall, where all interested citizens will be heard. Any Agenda item requiring special accommodations to allow access or participation at this hearing is asked to notify the ADA coordinator at (746-2667) of their needs one week prior to the hearing.

Further information, please call 746-2661.

Dated this 14th day of April, 2006.
CITY PLANNING AND ZONING BRAD GENGLER, Planning Director
Farmer Minor and Daisy take on the CAC

In celebration of the Month of the Young Child, Farmer Minor and Daisy, a pot-bellied pig, will be “pigging out on reading” 2 p.m. Saturday. All members of the base community are invited to attend.

For more information on Farmer Minor, go to www.daisyminor.com or call the youth center at 747-3151.

Public notice

Grand Forks Air Force Base has proposed the demolition of building 934, a water pump booster station facility.

An environmental assessment has been conducted and a finding of no significant impact has been determined for this action.

Anyone wishing 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 or 747-5608.

Red Cross volunteers needed

The Red River Valley Chapter of the American Red Cross is looking for volunteers to provide a variety of services on base and in the local community.

For more information, call the Red Cross at 773-9565 or visit the Web site at www.grandforksredcross.org.

Air Force Sergeants Association meeting

The Air Force Sergeants Association is scheduled to meet at noon May 2 at the Northern Lights Club.

For more information, call Master Sgt. Timothy Brittain at 747-6168.

Commissary case lot sale

The commissary’s case lot sale is May 12 and 13 from 10 a.m. to 6 p.m. Shoppers can receive up to 50 percent off on several popular items.

For more information, call Irene Apgar at 747-3083.

Scholarships available for dependent children

Military dependent children may apply for one of 20 $1,000 scholarships to be awarded in May for post-secondary education occurring within the next twelve months.

Information concerning the scholarship application and can be obtained at www.homefrontamerica.org

All applications must be postmarked by April 30, 2006.

AACA scholarship

The African American Cultural Association is sponsoring a scholarship contest. High school seniors, located within a 100-mile radius of Grand Forks Air Force Base and are dependents of active duty and retired military members may apply. Application packages are available at the base library, family support center, education center or at high school guidance counselor’s offices.

The deadline for submission is Sunday. Applications may be turned in at the education center or mailed to Mrs. Maxine Roy-Johnson, c/o Education Center, 344 Tuskegee Airmen Blvd, Grand Forks AFB, N.D., 58205. For more information, call Mrs. Roy-Johnson or Sonia Brumskill at 594-2841 or 330-0780.

Officer training

Squadron Officer School and Air and Space Basic Course nomination packages for academic year 2007 must be submitted to the formal and civilian training section (located in the education center) by May 24. Procedures, the nomination form (AF 4059) and physical requirements can be found at: http://ask.afpc.randolph.af.mil

Red Cross volunteers needed

The 319th Medical Group has positions open in its American Red Cross Volunteer Program. Family members or spouses of at least 16 years of age and retirees are welcome to apply. Candidates may apply for their choice of positions in most areas of the clinic and CPR is offered to all volunteers free of charge.

Free childcare may be available on a space-available basis. Volunteers can apply for as many or as few hours as they would like. For more information, call Maj. Robin White-Reed at 747-5373.

Veterinary services

The vet clinic will begin scheduling surgeries on May 1. The available number of surgeries will be determined prior to scheduling. All scheduling is on a first-come, first-serve basis. For more information, call Mrs. Melissa Stanisz at 747-3375.

Retiree Appreciation Day

10 a.m. to 12 p.m. - Registration and personnel brief will be open.
10:30 to 11:20 a.m. - Base tour
11 a.m. to 12:30 p.m. - Lunch at the NLC ($6.50 per person).

April 28, 2006 The Leader
May 31, 2006

Ms. Diane Strom  
Environmental Impact Analysis Program  
319 CES/CEVA  
525 Tuskegee Airmen Blvd.  
Grand Forks AFB, ND 58205-6434

Re: Draft Environmental Assessment, Demolition of Building 934  
Grand Forks Air Force Base, Grand Forks County

Dear Ms. Strom:

This department has reviewed the information concerning the above-referenced project submitted under date of April 20, 2006, with respect to possible environmental impacts.

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

1. All necessary measures must be taken to minimize fugitive dust emissions created during demolition activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

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. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for demolition affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

3. All necessary measures must be taken to minimize the disturbance of any asbestos-containing material and to prevent any asbestos fiber release episodes. Removal of any friable asbestos-containing material must be accomplished in accordance with section 33-15-13-02 of the North Dakota air pollution control rules.

4. Noise from demolition activities may have adverse effects on persons who live near the demolition area. Noise levels can be minimized by ensuring that demolition equipment is equipped with a recommended muffler in good working order. Noise effects can also be...
minimized by ensuring that demolition activities are not conducted during early morning or late evening hours.

5. All solid waste materials must be managed and transported in accordance with the state’s solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the Department’s Division of Waste Management at (701) 328-5166.

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.

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

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
April 20, 2006

Ms. Diane M. Strom
Environmental Impact Analysis Program
319 CES/CEVA, Room 128
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434

ND SHPO97-0527AZ: Demolish Building 934 Grand Forks Air Force Base, North Dakota, Project JFSD200192

Dear Ms. Strom;

We reviewed ND SHPO97-0527AZ: Demolish Building 934 Grand Forks Air Force Base, North Dakota Project JFSD200192, and concur with a “No Historic Properties Affected” determination, provided the project is of the nature specified and takes place in the legal description outlined and mapped in the draft report. Any borrow fill, must come from an approved source, that is a source surveyed by an archaeologist and found to contain no significant cultural resources.

If you have any questions please contact Susan Quinnell, at (701) 328-3576 or squinnell@state.nd.us

Sincerely,

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

Thank you for the opportunity to review and comment on the Draft FONSI and EA for the demolition of building 934 at the Grand Forks Air Force Base. The proposed project will have minimal impacts to fish and wildlife resources and will not affect threatened and endangered species, therefore the US Fish and Wildlife Service does not object to the construction of the preferred alternative as proposed.

Terry Ellsworth
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501

Office (701) 355-8505
Fax (701) 355-8513
Terry_Ellsworth@fws.gov

We are soliciting your views and comments on the proposed project. Any information or comments relating to environmental or other matters that you might provide will be used in identifying constraints that should be considered during the development of the proposed action.

Please forward any comments of information within twenty days. Thank you for your assistance. Any questions or concerns can be addressed to Diane Strom, Environmental Impact Analysis Program, 525 Tuskegee Airmen Blvd, Grand Forks, ND 58201.
From: Schumacher, John D. [jdschumacher@nd.gov]
Sent: Tuesday, May 02, 2006 8:45 AM
To: Strom Diane Civ 319 CES/CEVA
Subject: RE: EA to Demolish Building 934

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. We do not believe it will have any significant adverse effects on wildlife or wildlife habitat, including endangered species, based on the information provided.

Sincerely,
John Schumacher
Resource Biologist
PH: 701-328-6321
jdschumacher@nd.gov

-----Original Message-----
From: Strom Diane Civ 319 CES/CEVA [mailto:Diane.Strom@grandforks.af.mil]
Sent: Thursday, April 20, 2006 1:58 PM
To: Boyd, James R.; Knudtson, Larry J.; Schumacher, John D.; Quinnell, Susan L.; Terry_Ellsworth@fws.gov; Glatt, Dave D.
Cc: Leier, Joleen M.; Steinwand, Terry R.; Dyke, Steve R.; jeffrey_towner@fws.gov; Marie_Nelson@fws.gov; Paaverud, Merl E.; Dwelle, Terry L.
Subject: EA to Demolish Building 934

We are soliciting your views and comments on the proposed project. Any information or comments relating to environmental or other matters that you might provide will be used in identifying constraints that should be considered during the development of the proposed action.

Please forward any comments of information within twenty days. Thank you for your assistance. Any questions or concerns can be addressed to Diane Strom, Environmental Impact Analysis Program, 525 Tuskegee Airmen Blvd, Grand Forks AFB ND 58205-6434.

Sincerely,

Diane M. Strom
Environmental Impact Analysis Program
319 CES/CEVA, Room 128
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205-6434
Phone (701) 747-6394; DSN 362-6394
April 21, 2006

Diane M. Strom  
Dept. of the Air Force  
319 CES/CEVA, Room 128  
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.: ND060420-0161  

Dear Ms. Strom:  

SUBJECT: Environmental Assessment - Demolish Building 934  

The above referenced assessment 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,  

James R. Boyd  
Manager of Governmental Services  
Division of Community Services  

bb
MEMORANDUM FOR 319 CES/CEVA

FROM: 319 ARW/JA

SUBJECT: Legal Review – Grand Forks AFB Environmental Assessment and FONSI for Demolition of 934.

1. Based upon my review the proposed Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the demolition of Building 934 complies with 32 CFR part 989 and is legally sufficient.

2. 32 CFR §. 989.14 states an EA must discuss the need for the proposed action, reasonable alternatives to the proposed action, the affected environment, the environmental impacts of the proposed action and alternatives (including the "no action" alternative), and a listing of agencies and persons consulted during preparation. The EA meets these requirements and follows the alternatives analysis guidance outlined in Sec. 989.8.

3. Public notification was accomplished on April 20, 22 and 28, 2006. No public comments were received. Agency comments are included at the end of the EA.

4. If you have any questions about these comments, please contact the undersigned at 7-3606.

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