
Final Environmental Assessment

**Proposed Demolition of 35 Buildings
within the Munitions Storage Area
at Grand Forks Air Force Base
North Dakota**

Contract No. F41624-03-D-8595

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Prepared for

**Grand Forks Air Force Base
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FINDING OF NO SIGNIFICANT IMPACT (FONSI)
and
FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)
DEMOLITION OF 35 BUILDINGS WITH THE MUNITIONS
STORAGE AREA

Grand Forks Air Force Base, North Dakota

An Environmental Assessment (EA) was prepared to evaluate potential environmental and socioeconomic impacts of the Proposed Action and alternatives for demolishing 35 buildings within the Munitions Storage Area (MSA) at Grand Forks Air Force Base (AFB). The EA is attached to this Finding of No Significant Impact and Finding of No Practicable Alternative documents and is incorporated by reference per 40 Code of Federal Regulations (CFR) 1502.21.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The United States Air Force (USAF) proposes to demolish 35 buildings and helicopter denial poles within the MSA (the Proposed Action). The purpose of the Proposed Action is to remove excess facilities and infrastructure within the MSA that are no longer needed and that represent sources of potential contamination.

There are two alternatives for this Proposed Action: the No Action Alternative and one Alternative Action. The Proposed Action will include demolition of the 35 buildings to the foundation level, removal of pavements, driveways, and culverts, removal of helicopter denial poles, and grading and seeding of disturbed areas. The Proposed Action would take in a three-phase process over approximately three-years. The Alternative Action would demolish the 35 buildings and remove helicopter denial poles within the MSA at one time rather than in a three-phase process. Under the No Action Alternative, the buildings and the area would remain vacant.

PUBLIC REVIEW AND INTERAGENCY COORDINATION

The project will be implemented upon approval and after a public review period. Interested parties, groups, and persons are invited to submit written comments for consideration by the Grand Forks AFB Environmental Office. A copy of the draft EA and draft FONSI/FONPA are available for review and comment for 30 days, from DATE through DATE at the Grand Forks Public Library (2110 Library Circle, Grand Forks, ND, 58201, telephone 701-772-8116), and at the Grand Forks AFB Library (511 Holzapple Street, Grand Forks AFN, ND 58205, telephone 701-747-3046). Comments provided by resource agencies will be provided in Appendix B of the Final EA. For questions regarding the EA, please contact the Public Affairs Officer, 319 ARW/PA, 375 Steen Blvd., Grand Forks AFB, ND, 58205-6434; telephone (701) 747-5017; or e-mail PA@grandforks.af.mil. Written comments should be sent to the above address or e-mail no later than DATE to ensure consideration. The civil engineer of Air Mobility Command will review comments received by that date before making a decision to sign the final FONSI/FONPA.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Air Quality

The Proposed Action would result in short-term emissions of pollutants from equipment and vehicular traffic during demolition. Emissions from fuel-burning internal combustion engines (such as heavy equipment) could temporarily increase the levels of some criteria pollutants, including CO, NO₂, O₃, PM₁₀, and non-criteria pollutants such as VOCs. These increases would be temporary. Fugitive dust would be generated by demolition activities. To reduce temporary impacts to air quality, dust abatement measures, such as watering disturbed areas and/or roads would be used.

The Proposed Action would not result in a net increase in emissions from stationary sources, or major modifications to an existing major source that would be subject to PSD requirements. No permitted air sources are located within the MSA; however, there are small boilers and heaters located in some of the buildings that will be demolished. No new emissions sources will be added to the MSA. No long-term impacts to air quality are anticipated as a result of the Proposed Action.

Noise

The Proposed Action would not result in long-term noise impacts. Short-term minor increases in noise levels would occur during demolition activities. These increases would occur during daylight hours. In addition, the MSA is located within an industrial area of the base and there are no sensitive receptors near the MSA.

All motorized construction equipment would be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a system of equivalent noise reducing capacity. It would also be required that mufflers and exhaust systems be maintained in good working condition, free from leaks and holes.

Hazardous and Toxic Substances

No short-term or long-term impacts from hazardous and toxic substances are anticipated as a result of the Proposed Action. The Proposed Action would not disturb the ERP or RCRA sites on Grand Forks AFB. No USTs associated with the buildings proposed for demolition remain within the MSA. The empty AST outside Building 715 would be removed during demolition activities.

Short-term minor adverse impacts to solid waste are expected as a result of the Proposed Action. Solid waste debris would be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert construction debris would be disposed of at an approved location, such as Berger Landfill. PCB-containing materials would be removed prior to demolition and taken to the HazMart on Grand Forks AFB for disposal. Regulated (friable) ACM must be removed prior to demolition and disposed of in accordance with applicable environmental laws and regulations. ACM should be handled only by licensed and qualified personnel. LBP does not need to be

remediated prior to demolition; however, workers must be protected from exposure during demolition.

Water Resources

Short-term minor adverse impacts could occur as a result of implementation of the Proposed Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water, in turn degrading water quality in the surface waters. Erosion control best management practices (BMPs) would be followed so that soils or demolition materials would not migrate off base during the demolition phase. Long-term impacts are not anticipated.

Short-term adverse and long-term positive impacts are expected as a result of implementation of the Proposed Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water. Storm water runoff during the demolition phase in the MSA would be controlled through implementation of an erosion and sediment control plan. In the long term, the demolition activities would remove existing buildings from the MSA, thereby decreasing impervious surfaces.

Short-term impacts to groundwater are expected during demolition activities under the Proposed Action. Excavations during demolition could fill with water from the shallow groundwater. This water would need to be pumped from the excavations, filtered, and discharged as surface water. Erosion control plans would be required to minimize the amount of soil and sediment entering the water during construction and permits would be required for the discharge of the water. The acquisition of the discharge permit would be part of the design and construction process. No long-term impacts are anticipated to groundwater as a result of demolition activities within the MSA.

No short-term or long-term impacts are anticipated to floodplains as a result of demolition activities within the MSA because there are no floodplains within the MSA.

The Proposed Action would have long-term adverse impacts on wetlands within the MSA. As part of the demolition activities, the culverts under the driveways to the buildings would be removed, and the drainage ditches and swales containing the wetlands would be filled. After completion of demolition activities, the disturbed areas would be graded level and seeded. Design documents showing extent of the demolition activities are not complete. Based upon the locations of the wetlands adjacent to the buildings proposed for demolition, it is anticipated that up to 1.3 acres of wetlands could be filled during these activities. The actual amount of wetlands that would be filled would vary depending upon final grading plans for the site.

Based upon this impact to wetlands, a Section 404 CWA permit would be required prior the commencement of demolition activities. The acquisition of the Section 404 permit would be part of the design and construction process. The Section 404 permit would be obtained prior to any ground disturbing activities. Mitigation for wetlands impacts would be required. Mitigation could include constructing new wetlands or purchasing wetland credits from an approved wetland bank.

Biological Resources

The Proposed Action would have short-term minor impacts on vegetation, wildlife, and threatened and endangered species within the MSA during demolition. Noise from demolition equipment and ground disturbing activities would discourage animals from entering the MSA. The Proposed Action would not result in long-term changes to the vegetative or wildlife resources and would not have long-term impacts on federally or state-listed endangered species or state species of concern. The Proposed Action would result in the temporary removal of some vegetation (such as grasses) during demolition activities of structures, but will ultimately increase vegetation areas within the MSA.

Socioeconomic Resources

None of the actions described in Section 2 for the Proposed Action would have adverse impacts on the socioeconomic resources at Grand Forks AFB or the surrounding region. No change in population or the permanent workforce would result from the Proposed Action. Due to the small nature of this project, no migration of construction workers from outside the area is expected. Short-term minor increases in local economic activity would be generated by construction jobs, purchase of construction materials and services, as well as convenience retail sales near the base to construction workers, if the Proposed Action were implemented.

Cultural Resources

The Proposed Action would have no impact on cultural resources. Buildings 703, through 707, and 714 are historic structures, but because of recent Section 106 consultation by the base for purposes of this EA, the undertaking has no affect on historic places. Agency coordination letters are presented in Appendix B. There are no known archaeological resources within the MSA.

Land Use

The Proposed Action would not result in changes to land use within the MSA and would not be in conflict with existing plans and policies.

Transportation

No long-term negative impacts are anticipated as a result of the Proposed Action. Short-term minor adverse impacts would be anticipated. During construction, additional cars with workers and construction and supply trucks would need to gain access to Grand Forks AFB. These additional trips would be temporary in duration. Because they would occur throughout the day, many of these trips would occur outside of peak hours when the roadways experience a reduced level of use. The additional vehicle traffic expected during construction is not expected to significantly increase traffic on roadways within or surrounding Grand Forks AFB. Impacts to the transportation system, associated with the Proposed Action, are expected to be less than significant. The Proposed Action would not add long-term vehicle trips to or from Grand Forks AFB.

Airspace/Airfield Operations

No impacts to the airspace or airfield operations are anticipated as a result of implementation of the Proposed Action because demolition would not occur on or near the airfield.

Safety and Occupational Health

The Proposed Action would have a long-term beneficial impact on safety. After the demolition of the buildings within the MSA, the QD arcs would decrease. Prior to demolition, a team from the safety unit on Grand Forks AFB would survey the area to determine whether munitions or unexploded ordnance remain within the proposed demolition areas of the MSA. The Contractor would have to follow proper precautions to provide safe access for construction workers. Because construction would occur within the confines of the MSA, no concern for worker safety from airfield operations is expected.

In the long-term, the Proposed Action would improve occupational safety to workers at Grand Forks AFB. As the buildings within the MSA continue to degenerate, potential health issues related to asbestos, LBP, mold, and bird dropping would continue to increase.

Environmental Management

The Proposed Action would not have an impact on environmental management at the base. Demolition activities associated with building structures would not affect the underlying geological structure of the area. Soils exposed during the demolition activities at the MSA would be subject to increased runoff and erosion. Appropriate BMPs for erosion control and sedimentation would be implemented during demolition.

Although the MSA is located in a prime farmland soil series, the area is highly developed and not currently in use as farmland. Reversion of the land within the MSA to agricultural land would not be likely due to the proximity to munitions storage buildings. Therefore, no further action is required under the Farmland Protection Policy Act of 1981 (Title 7 CFR, Part 658; the Natural Resources Conservation Service Final Rule, Farmland Policy, revised 1 January 1998).

Environmental Justice

No impacts to low-income or minority populations or children are anticipated as a result of implementation of the Proposed Action. There are no concentrations of low-income or minority populations near the boundaries of Grand Forks AFB or the project area. Children do not have access to the MSA due to the security fencing.

Cumulative Impacts

The potential adverse impacts to resources of interest in this EA are short term and minor. The Proposed Action would be limited to the interior of the MSA and would not have long-term adverse impacts to resources on Grand Forks AFB, Grand Forks County, or the state of North

Dakota. Impacts to wetland resources would be mitigated by creating wetlands elsewhere or purchasing credits in a mitigation bank.

The Proposed Action would not result in, or contribute to, significant negative cumulative impacts to the resources of the region. When added together, the three construction and demolition projects on Grand Forks AFB do not cause and long-term environmental or socioeconomic impacts within the ROI.


FINDINGS

Finding of No Practicable Alternative

Executive Order 11990, Protection of Wetlands, provides that if a federal government agency proposed to conduct an activity in a wetlands, it will consider alternatives to the action and modify its actions, to the extent feasible, to avoid adverse impacts on wetlands. Because of the linear extent of the wetlands within the MSA and their proximity to pavement and buildings to be demolished, the project cannot avoid directly impacting wetlands. The USAF finds that there are no practicable alternatives to demolition activities within wetlands for the Proposed Action. The USAF further finds that practicable measures have been taken to minimize harm to wetlands. Grand Forks AFB will mitigate the losses at either a wetland mitigation bank or a suitable location on base.

Finding of No Significant Impact

In accordance with the Council of Environmental Quality regulations implementing the National Environmental Policy Act of 1969, as amended and Environmental Impact Analysis Process, 32 CFR 989, the USAF concludes that the demolition of 35 buildings within the MSA will have no significant impact on the quality of the natural or human environment; thus an Environmental Impact Statement is not warranted.



JOHN H. BONAPART, JR., SES
Deputy Director, Installations &
Mission Support

5 AUGUST 2008
Date

Attachment:
Environmental Assessment

Executive Summary

Proposed Action

In accordance with the National Environmental Policy Act of 1969 (NEPA) Grand Forks Air Force Base (AFB or base), with support of Air Mobility Command (AMC) and the Air Force Center for Engineering and the Environment (AFCEE) (formerly Air Force Center Environmental Excellence), has prepared an environmental assessment (EA) to evaluate the potential impacts of demolishing 35 buildings within the munitions storage area (MSA) at Grand Forks AFB in Grand Forks County, North Dakota.

The objective of the Proposed Action is to reduce the amount of funds currently being spent to maintain these vacant and unused buildings, and remove a potential asbestos risk. Implementing the Proposed Action is anticipated to be accomplished using available funding, and to comply with state and federal law.

Purpose and Need

The purpose of this EA is to determine whether the Proposed Action would have a significant adverse effect on the quality of the environment. The purpose of the Proposed Action is to remove excess facilities and infrastructure within the MSA. The buildings proposed for demolition were constructed to store munitions and cannot be reused for use other than munitions storage as they are within the explosive safety quantity distance (QD) arc. By demolishing the vacant buildings within the MSA, the overall QD arc will be reduced by approximately 84 acres (from 326 acres to 242 acres), thus allowing for development in areas adjacent to the MSA.

Buildings included in the Proposed Action were constructed to support bomb and missile missions, and are no longer used. The current mission at Grand Forks AFB supports KC-135 Stratotankers. This mission is scheduled to transition out over the next two years and a new mission of Unmanned Aerial Vehicles is scheduled to move on base in its place. Neither of these missions requires storage of munitions; therefore, funding to maintain and operate the 35 vacant buildings inside the MSA is drawn from other active facilities and projects that are critical to meeting mission requirements.

Operations on base still require munitions storage. These needs for storage would be met by using the remaining munitions storage buildings within the MSA.

Description of Proposed Action and Alternatives

Proposed Action

The 319th Air Refueling Wing (ARW) proposes to demolish 35 buildings and helicopter denial poles within the MSA in a three-phase process. The buildings including foundations would be demolished and debris, utility lines, and friable ACM would be removed. Prior to demolition, the area will need to be inspected and cleared by a munitions team to determine whether munitions are present on the site.

Comprehensive demolition of the 35 buildings includes three (3) phases. Phase I includes the comprehensive demolition of Buildings 710, 711, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, and 750. Phase II includes comprehensive demolition of Buildings 702, 703, 704, 705, 706, 707, 708, 709, 715, 718, 722, 731, 733, and 761. Phase III includes comprehensive demolition of Buildings 713, 714, 720, 721, 728, 730, and 732.

Alternative Action

A second action alternative is to demolish the 35 buildings and helicopter denial poles within the MSA at one time. This action could occur if full funding for the entire action becomes available. The buildings including foundations would be demolished and debris, utility lines, and friable ACM would be removed.

No Action Alternative

Under the No Action Alternative, the demolition of 35 buildings would not occur. The No Action Alternative does not satisfy the purpose and need for the Proposed Action.

Alternatives Considered but Eliminated

The 319 ARW considered two alternatives that were eliminated from further consideration. The first eliminated alternative proposed that instead of demolishing the 35 buildings within the MSA, they would reuse the facilities for purposes other than munitions storage. The second eliminated alternative proposed to demolish the above ground portions of the buildings and cover the demolition debris in place with soil and vegetation.

Affected Environment and Consequences

The description of the affected environment focused on the resources and conditions potentially subject to impacts of the Proposed Action or other actions if they were implemented. The resources evaluated included air quality, noise, hazardous and toxic substances, water resources, biological resources, socioeconomic resources, cultural resources, land use, transportation systems, airspace/airfield operations, safety and occupational health, environmental management, and environmental justice and the protection of children.

After analysis of the Proposed Action, it was concluded that potential short-term minor impacts would occur to the following resources: air quality, noise, solid waste (included under hazardous and toxic resources), surface and storm water resources (included under water resources), socioeconomic resources, and transportation systems. Direct impacts would occur to wetlands that has resulted in the requirement of a Section 404 CWA permit prior the commencement of demolition activities and mitigation activities. Positive impacts would occur regarding safety and occupational health resources. No impacts would occur to biological resources, groundwater and floodplains, cultural resources, land use, airspace and airfield operations, environmental management and environmental justice and the protection of children.

Indirect and cumulative impacts of the Proposed Action are expected to be short-term and minor.

Conclusions

The 319 ARW prepared this EA to examine the potential consequences to the human and natural environment that may result from the Proposed Action. Based upon the environmental impact analysis, it has been concluded that no significant environmental or socioeconomic impacts would result from the Proposed Action. Therefore, it is not necessary to prepare an environmental impact statement (EIS) to address the Proposed Action and a Finding of No Significant Impact (FONSI) should be issued.

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Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
ACM	asbestos-containing material
AFB	Air Force Base
AFCEE	Air Force Center for Engineering and the Environment (formerly Air Force Center Environmental Excellence)
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zone
AMC	Air Mobility Command
ARW	Air Refueling Wing
AST	aboveground storage tank
base	Grand Forks Air Force Base
BMP	best management practice
BMW	Bombardment Wing
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
dba	decibels A-weighted
DOD	Department of Defense
DOH	Department of Health
EA	environmental assessment
EIAP	Environmental Impact Analysis Process

EO	Executive Order
ERP	Environmental Restoration Program
GATR	ground-to-air transmitter and receiver
H ₂ S	hydrogen sulfide
HAP	hazardous air pollutant
HazMart	hazardous materials pharmacy
ICBM	intercontinental ballistic missile
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
IRP	Installation Restoration Program
JP	jet petroleum
kg	kilogram
LBP	lead-based paint
mg/m ³	milligrams per cubic meter
MSA	munitions storage area
NAAQS	National Ambient Air Quality Standards
NDAAQS	North Dakota Ambient Air Quality Standards
NDAC	North Dakota Administrative Code
NDDH	North Dakota Department of Health
NEPA	National Environmental Policy Act of 1969
NDGF	North Dakota Game and Fish Department
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
O ₃	ozone
OSHA	Occupational Safety and Health Administration
OWS	oil-water separator

P2	pollution prevention
Pb	lead
PCB	polychlorinated biphenyl
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PSD	Prevention of significant deterioration
QD	explosive safety quantity distance
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
SAC	Strategic Air Command
SHPO	State Historic Preservation Officer
SMW	Strategic Missile Wing
SO ₂	sulfur dioxide
SWMU	solid waste management unit
THPO	Tribal Historic Preservation Officer
tpy	tons per year
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VOC	volatile organic compound

Purpose of and Need for Action

1.1 Introduction

The 319th Air Refueling Wing (319 ARW) proposes to demolish 35 buildings within the munitions storage area (MSA) at Grand Forks Air Force Base (AFB or base) in Grand Forks County, North Dakota (Figures 1-1 and 1-2).

Grand Forks AFB, with support of the U.S. Air Force (USAF) Air Mobility Command (AMC) and the Air Force Center for Engineering and the Environment (AFCEE) (formerly Air Force Center Environmental Excellence), has prepared an environmental assessment (EA) for the Proposed Action, in accordance with the National Environmental Policy Act of 1969 (NEPA) implementing regulations of the Council on Environmental Quality (CEQ) at Title 40 Code of Federal Regulations (CFR) §§1500-1508, USAF Environmental Impact Analysis Process (EIAP) at 32 CFR §989, and related Department of Defense (DOD) directives. The purpose of this EA is to determine whether the Proposed Action would have a significant adverse effect on the quality of the environment.

1.2 Purpose of and Need for the Action

The purpose of the Proposed Action is to remove excess facilities and infrastructure within the MSA. The buildings proposed for demolition were constructed to store munitions. Most of the buildings are constructed of thick concrete walls, some with large soil berms for blast protection. These buildings cannot be reused for use other than munitions storage as they are within the explosive safety quantity distance (QD) arc. QD arcs are buffers that are generated around facilities that contain high explosive or munitions or flammable elements. The size and shape of the QD arcs dictate what kinds of facilities are approved to be within a specified distance of the explosive. The QD arcs of the active munitions storage buildings within the MSA prohibit use of the buildings proposed for demolition for uses other than munitions storage for safety reasons. By demolishing the vacant buildings within the MSA, the overall QD arc will be reduced by approximately 84 acres (from 326 acres to 242 acres), thus allowing for development in areas adjacent to the MSA. This is critical to improve the base's ability to adapt to USAF versatility.

Overall funding for maintenance at the base is dictated by the amount of area required for mission requirements. These buildings are not required by the current mission; therefore, funding to operate and maintain these buildings is currently being drawn away from other required mission activities. As these buildings continue to degenerate, potential health issues are emerging, including mold, bird droppings and dead birds, and potential for asbestos-containing materials (ACM) to deteriorate to a point where they create an environmental risk. In addition, as the buildings degenerate, they become unsightly and detract from a well maintained base.

Strategic Air Command (SAC) organized the 319th Bombardment Wing (BMW) at Grand Forks AFB in 1963. In 1964, the command organized the 321st Strategic Missile Wing (SMW) while construction began on a Minuteman II missile complex. The 321 SMW became operational with the Minuteman II in December 1966. During the next 30 years, the 319 BMW and the 321 SMW went through several changes. In 1991, SAC appointed the 319 BMW as the host unit for the base. In 1993, USAF redesignated the 319 BMW as the 319th Air Refueling Wing and reassigned it to AMC. Ending an era of over 30 years of heavy bomber operations at Grand Forks AFB, the last B-1B Lancer departed the base on 26 May 1994. Air Combat Command inactivated the 319th Bomb Group on 16 July 1994. Additionally, in 1995, USAF announced it would remove the 150 Minuteman III missiles from the Grand Forks AFB missile fields and inactivate the 321st Missile Group as part of the Strategic Arms Reduction Treaty.

Buildings included in the proposed action were constructed to support the bomb and missile missions, and are no longer used. The current mission at Grand Forks AFB supports KC-135 Stratotankers. This mission is scheduled to transition out over the next two years and a new mission of Unmanned Aerial Vehicles is scheduled to move on base in its place. Neither of these missions requires storage of munitions; therefore, funding to maintain and operate the 35 vacant buildings inside the MSA is drawn from other active facilities and projects that are critical to meeting mission requirements.

There is a need for continued munitions storage on base. Operations on base, including the armory, Survival Evasion Resistance and Escape, Base Exercises, Airfield Management, Office of Special Investigations, Base Honor Guard, Safe Havens, Logistics Readiness Squadron Mobility, Operations Support Squadron Aircraft Flight Equipment, and other groups, still require munitions storage. These needs for storage would be met by using the remaining munitions storage buildings within the MSA.

The NEPA process is the first step in the Air Force's property disposal process and the generation and approval of the AF Form 300. The first signature on the AF Form 300 is that of the Environmental Engineer who needs to certify that environmental requirements have been met. Therefore, to comply with AFI32-9004, the NEPA process must be completed prior to the generation of AF Form 300 (USAF 2007).

To permanently remove the explosives safety clear-zone arcs and the explosives sitings from these facilities, Grand Forks AFB must comply with the de-siting requirements of AFMAN 91-201, paragraph 4.16 prior to initiating demolition actions (USAF 2001). Paragraph 4.16 states that when a permanent reduction or re-designation of an explosives clear zone is required, a coordinated (installation safety, civil engineering, and logistics) request letter is prepared and submitted to the host MAJCOM Safety Office through the respective MAJCOM activity offices. Requests must be signed by the installation commander and include justification for the reduction. No actions will be taken to redraw base maps or construct facilities until MAJCOM approval is received.

1.3 Objectives for the Action

The objective of the Proposed Action is to reduce the amount of funds currently being spent to maintain these vacant and unused buildings, and remove a potential asbestos risk. At this

time, funds are being drawn away from other projects on base to maintain these buildings. Demolishing the selected buildings will allow those funds to be used more efficiently on functioning facilities. Implementing the Proposed Action is anticipated to be accomplished using available funding, and to comply with state and federal law.

1.4 Scope of the Environmental Assessment

This EA documents and analyzes the potential environmental and socioeconomic effects of implementing the Proposed Action and alternative. A No Action Alternative is included as a baseline against which to assess impacts.

1.5 Decisions that Must be Made

Grand Forks AFB's Commander will be responsible for selecting which alternative to implement. He or she will be responsible for deciding which alternative best meets the need to prepare the base for future development while efficiently managing the use of funds to operate and maintain facilities on base. It is possible that, in order to meet the future needs of the base, the Commander may request that one or more of the 35 facilities slated for demolition be retained for use by the Safety mission.

The Air Force goal for the management of wetlands is that wetlands are to be protected, as stipulated in Executive Order (EO) 11990, "Protection of Wetlands." Additionally, the Air Force has a goal of ensuring no loss of wetlands. Supporting these goals is the policy that wetland impacts are to be assessed under NEPA and nothing should be built in a wetland unless there is a finding of no practicable alternative (FONPA). If there is no practical alternative, then the appropriate mitigation measures must be taken. AMC signs the FONPA relying on recommendations from the wing commander regarding alternatives for the action.

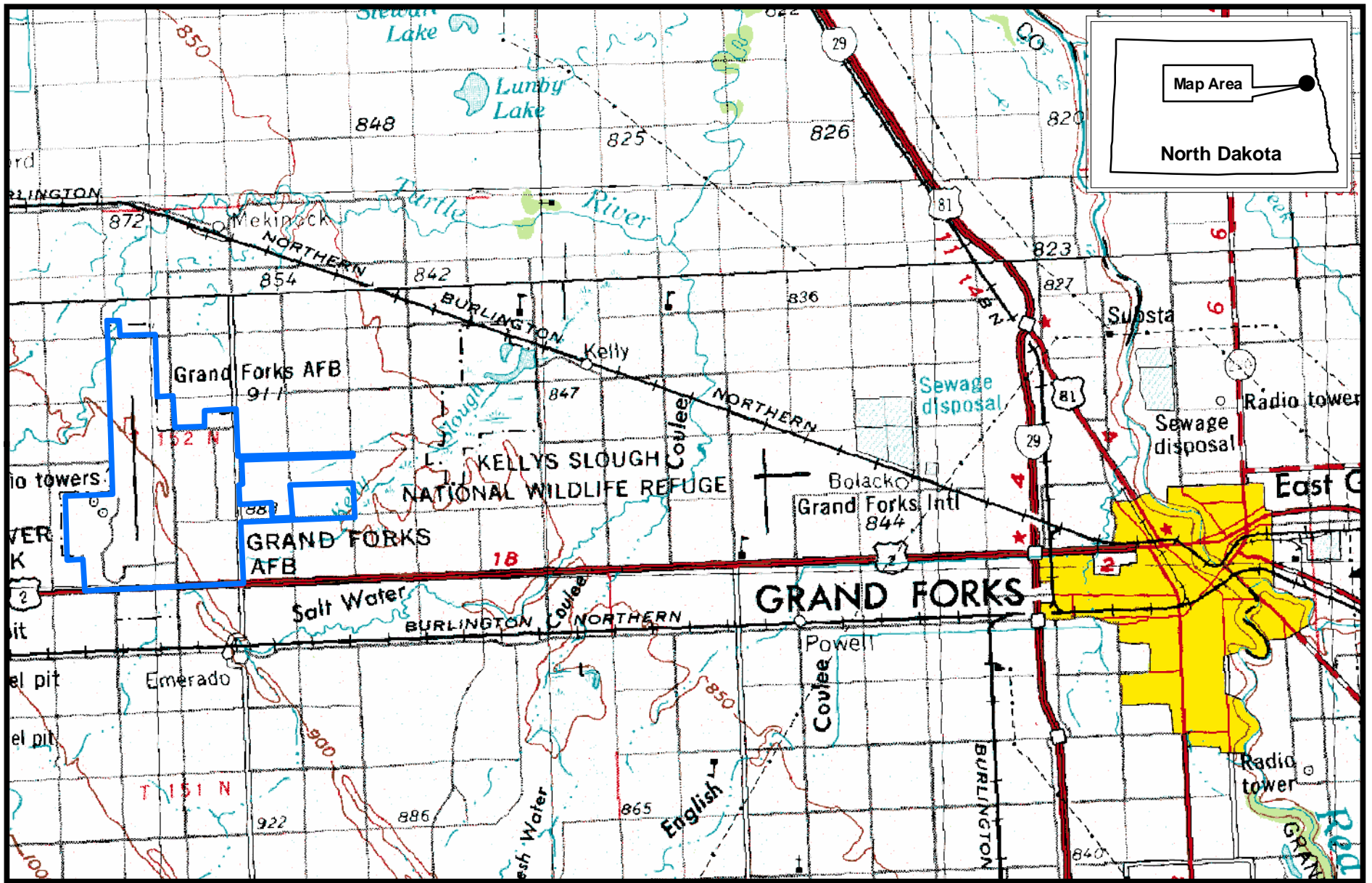
1.6 Applicable Regulatory Requirements and Required Coordination


This EA has been prepared in accordance with NEPA (Public Law 91-190), the CEQ regulations implementing NEPA, 40 CFR §§1500-1508, and USAF instructions and regulations implementing NEPA. As required by the regulations implementing NEPA, this EA evaluates the direct, indirect, and cumulative impacts of the Proposed Action and alternatives. In addition, this EA evaluates the compliance of the Proposed Action with potential requirements of the following state and federal environmental laws and regulations:

- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Pollution Prevention Act of 1990
- National Historic Preservation Act

- Archaeological Resources Protection Act
- Endangered Species Act of 1973
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA) of 1970
- Occupational Safety and Health Administration (OSHA) regulations
- Executive Order (EO) 11988 (Floodplain Management)
- EO 11990 (Protection of Wetlands)
- EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)

NEPA implementing regulations require coordination with relevant federal, state, and local agencies to evaluate the potential environmental impacts of implementing the alternatives. Grand Forks AFB coordinated with regulatory agencies, including the North Dakota Game and Fish Department (NDGF), North Dakota Department of Health (DOH), State Historical Society of North Dakota, and U.S. Fish and Wildlife Service (USFWS).



Legend
 Grand Forks Air Force Base Location

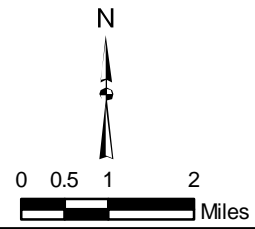
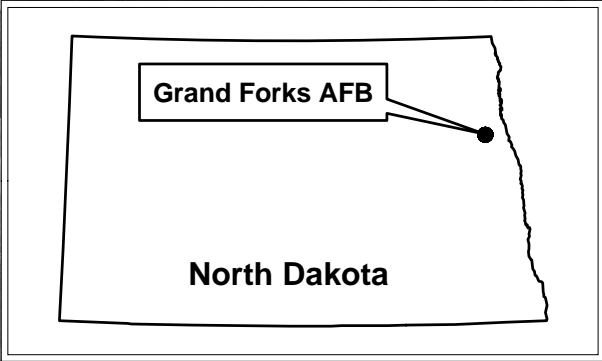
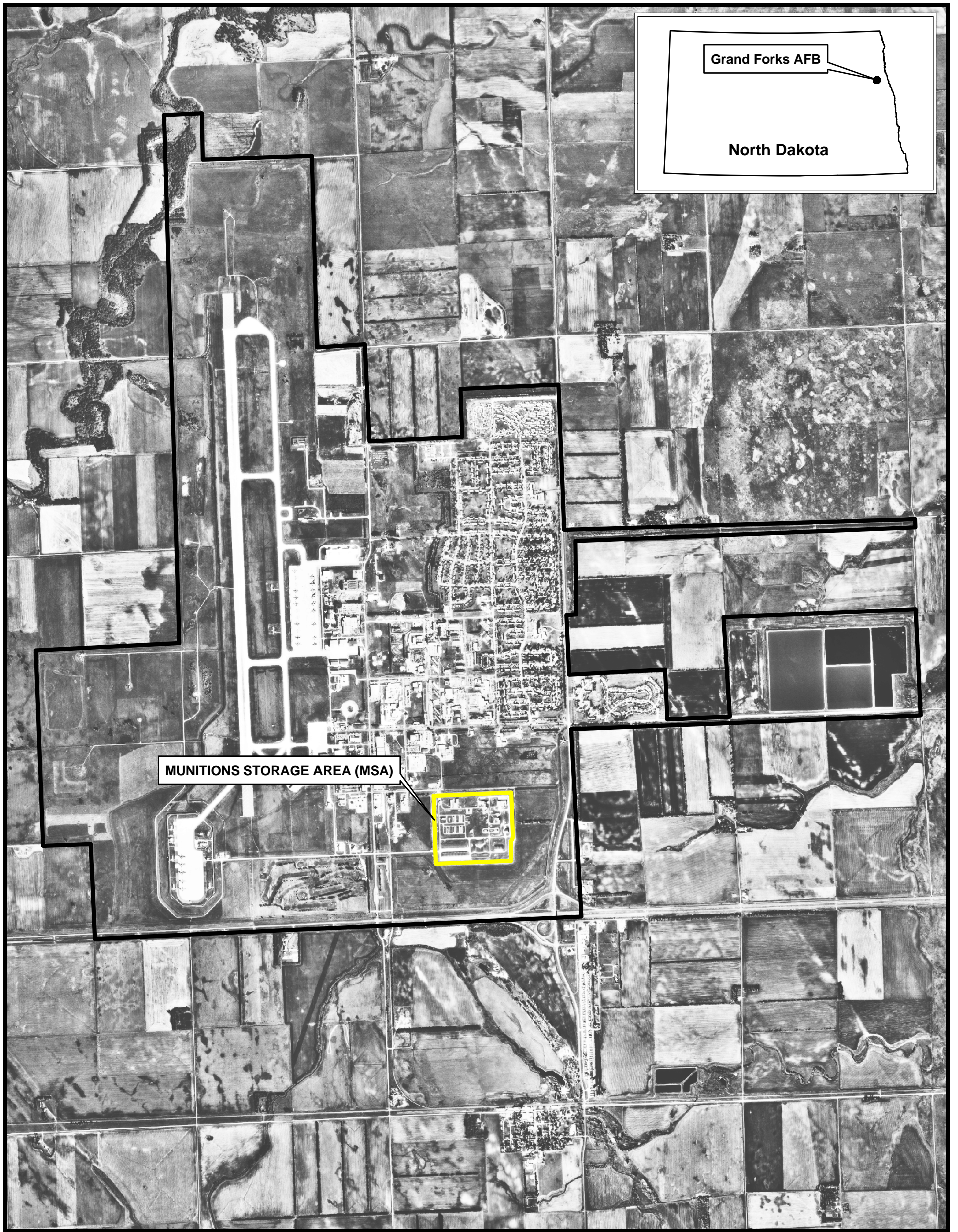


Figure 1-1
 FACILITY LOCATION MAP
 Environmental Assessment Report
 Grand Forks AFB, North Dakota



MUNITIONS STORAGE AREA (MSA)



Grand Forks Air Force Base
Property Boundary



0 0.25 0.5 1
Miles

Figure 1-2
SITE VICINITY
Environmental Assessment Report
Grand Forks AFB, ND

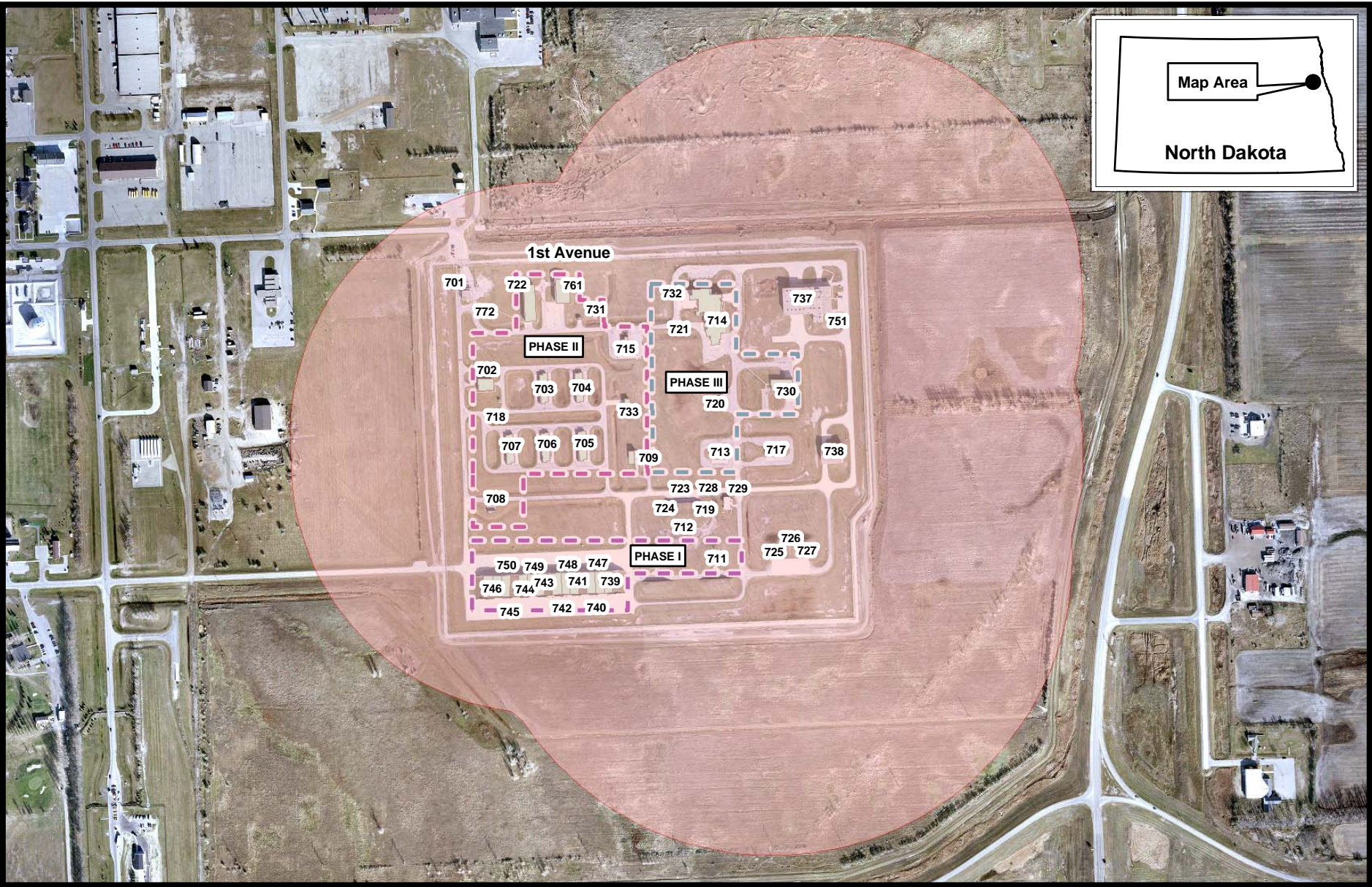
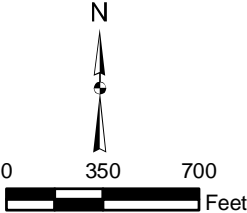


Figure 1-3
 MUNITIONS STORAGE AREA
 Environmental Assessment Report
 Grand Forks AFB, North Dakota

Legend

 Quantity Distance Arc



SECTION 2

Description of Proposed Action and Alternatives

2.1 Introduction

This section describes the Proposed Action and alternatives carried forward for analysis in this EA (the Proposed Action, one additional action alternative, and the No Action Alternative), and the alternatives considered but eliminated from detailed study. Alternatives carried forward for detailed analyses in this EA were identified as meeting the underlying purpose and need for the action. The alternatives eliminated do not meet the purpose and need of the Proposed Action. The No Action Alternative is carried forward for analysis as a baseline against which the action alternatives are compared, in accordance with CEQ (40 CFR 1502.14(d)).

2.2 Selection Criteria for Alternatives

USAF developed the alternatives to:

- Eliminate or minimize potential hazards to safety that could occur if the buildings are left vacant
- Meet the current mission requirements of the installation and improve the versatility of the base for accepting new missions
- Avoid or minimize impacts to the natural and man-made environment
- Comply with state and federally mandated sampling requirements and protocols

2.3 Alternatives Considered but Eliminated from Detailed Study

One alternative to demolishing the 35 buildings within the MSA would be to reuse the facilities for purposes other than munitions storage. USAF eliminated this alternative from further consideration because these buildings are not able to be reused for purposes other than munitions storage because these buildings are located with the QD arc of other active munitions storage buildings, which precludes their use for other purposes for safety reasons. In addition, because the buildings were constructed to store missiles and munitions, many were built with thick concrete walls without windows, some with large soil berms to withstand potential blasts. This type of construction makes the buildings difficult to convert to other uses needed to support the mission.

USAF also considered an alternative to demolish the above ground portions of the buildings and cover the demolition debris in place with soil and vegetation. This is not a reasonable or feasible alternative because it would not conform to existing solid waste regulations.

A third alternative considered but dismissed prior to detailed analysis involved lowering the explosives limits (via re-site) and hazard class divisions on the explosives storage structures. This would reduce the explosives clear-zone arcs and would leave Grand Forks AFB with the flexibility to handle any compatibility, contingencies, or mission changes involving explosives that may come up and still free up valuable real-estate. This alternative was dismissed because while it would free up valuable real estate, it would not meet the need to reduce maintenance costs.

2.4 Description of Proposed Alternatives

2.4.1 Proposed Action (Phased Demolition of 35 Buildings within the MSA)

USAF proposes to demolish 35 buildings and helicopter denial poles within the MSA in a three-phase process (Figure 2-1). The buildings and foundations would be demolished and debris would be removed by truck and placed in a nearby approved solid waste landfill. Utility lines would be capped or removed for safety and conservation. Friable ACM would be removed prior to demolition and disposed of in an approved landfill. Buildings constructed prior to 1980 most likely contain lead-based paint (LBP). Demolition of these buildings will follow appropriate regulations governing disposal of lead-based paint. Prior to demolition, the area will need to be inspected and cleared by a munitions team to determine whether munitions are present on the site. In addition, prior to demolition proper Section 106 consultation shall be complete with appropriate mitigation identified regarding potentially eligible historic buildings located within the MSA.

The MSA is a relatively flat area consisting mostly of mowed grass interspersed with several areas of herbaceous wetlands. The wetlands are associated with low-areas, swales, and culverts within the MSA. Due to the proximity of some wetlands to the MSA buildings, demolition and grading activities are expected to impact wetlands within the MSA.

Phase I includes the comprehensive demolition of Buildings 710, 711, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, and 750.

Phase II includes comprehensive demolition of Buildings 702, 703, 704, 705, 706, 707, 708, 709, 715, 718, 722, 731, 733, and 761.

Phase III includes comprehensive demolition of Buildings 713, 714, 720, 721, 728, 730, and 732.

2.4.2 Alternative Action (Full Demolition of 35 Buildings within the MSA)

A second action alternative is to demolish the 35 buildings and helicopter denial poles within the MSA at one time. This action could occur if full funding for the entire action becomes available. The buildings and foundations would be demolished and debris would be removed and placed in an approved solid waste landfill. Utility lines would be capped or removed for safety and conservation. Existing friable ACM would be removed prior to construction and disposed of in an approved landfill.

2.4.3 No Action Alternative

Inclusion of the No Action Alternative is prescribed by CEQ regulations at 40 CFR 1502.14 (d). Although the No Action Alternative does not satisfy the purpose and need for the Proposed Action, it serves as a baseline against which the impacts of the Proposed Action can be evaluated.

Under the No Action Alternative, the buildings and the area would remain vacant. Funding needed to maintain the buildings would be drawn away from other projects. Due to the asbestos contained in these buildings and the age of the buildings, potential safety hazards may develop into a more serious problem if left unabated. A decision to take no action could result in the use of funding to maintain and operate buildings that are no longer required by the current base mission.

2.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts

Section 4.15 identifies the past, present, and reasonably foreseeable future actions that have the potential to interact with the Proposed Alternative.

2.6 Comparison of the Environmental Impacts of Alternatives

Table 2-1 compares the environmental effects of the alternatives described above.

TABLE 2-1
Summary of Potential Environmental and Socioeconomic Consequences
Proposed Demolition of 35 Buildings within the Munitions Storage Area, Grand Forks Air Force Base, North Dakota

Resource	Environmental and Socioeconomic Consequences		
	Proposed Action	Alternative Action	No Action Alternative
Air Quality	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Noise	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Wastes, Hazardous Materials and Stored Fuels	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Water Resources			
Surface Water	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Storm Water	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
	Long-term Beneficial Impacts	Long-term Beneficial Impacts	
Groundwater	No Impacts	No Impacts	No Impacts
Floodplains	No Impacts	No Impacts	No Impacts
Wetlands	Long-term Adverse Impacts	Long-term Adverse Impacts	No Impacts

TABLE 2-1
Summary of Potential Environmental and Socioeconomic Consequences
Proposed Demolition of 35 Buildings within the Munitions Storage Area, Grand Forks Air Force Base, North Dakota

Resource	Environmental and Socioeconomic Consequences		
	Proposed Action	Alternative Action	No Action Alternative
Biological Resources			
Vegetation	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Wildlife	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Threatened or Endangered Species	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Socioeconomic Resources	Short-term Minor Impacts (construction)	Short-term Minor Impacts (construction)	No Impacts
Cultural Resources	No Impacts	No Impacts	No Impacts
Land Use	No Impacts	No Impacts	No Impacts
Transportation Systems	No Impacts	No Impacts	No Impacts
Airspace/Airfield Operations	No Impacts	No Impacts	No Impacts
Safety and Occupational Health	Long-term Beneficial Impacts	Long-term Beneficial Impacts	No Impacts
Environmental Management	No Impacts	No Impacts	No Impacts
Pollution Prevention	No Impacts	No Impacts	No Impacts
Geology and Soils	No Impacts	No Impacts	No Impacts
Environmental Justice and Protection of Children	No Impacts	No Impacts	No Impacts

2.7 Identification of Preferred Alternative

USAF's preferred alternative for this EA is to implement the Proposed Action as described in Section 2.4.1.

Affected Environment

3.1 Introduction

This section describes the relevant environmental conditions at Grand Forks AFB for resources that have the potential to be affected by implementation of the Proposed Action and alternatives described in Section 2. Although the expected geographic scope or region of influence (ROI) of some potential impacts includes Grand Forks AFB and certain adjacent areas, ground disturbance that would result from implementing the Proposed Action would affect approximately 3 to 5 acres and would occur only within the MSA. In accordance with the CEQ' guidelines, the description of the affected environment focuses on those resources with the potential to be affected by the Proposed Action and alternatives.

3.2 Air Quality

The CAA (42 USC §7401, et seq., as amended) requires the U.S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA established two types of national air quality standards – primary and secondary. Primary standards set limits to protect public health with an adequate margin of safety, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The USEPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants, which are called criteria pollutants. These are ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter less than 10 microns in diameter (PM₁₀) and less than 2.5 microns in diameter (PM_{2.5}). Most ozone is a result of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) reacting with sunlight. Units of measure for the standards are parts per million (ppm) by volume, milligrams per cubic meter of air (mg/m³), and micrograms per cubic meter of air (µg/m³). Areas that meet the NAAQS for a criteria pollutant are designated as being in attainment; areas not meeting NAAQS are designated as nonattainment areas for specified pollutants.

The North Dakota Air Quality Standards (North Dakota Administrative Code [NDAC] Title 33) sets air quality standards and the North Dakota Hazardous Air Pollutants (HAPs) Emission Standards (NDAC Title 33) establishes standards for hazardous air pollutants for the state. Provisions for the control of air pollution in the state are provided in the North Dakota Air Pollution Control Act (NDAC Title 23). The North Dakota Ambient Air Quality Standards (NDAAQS) are more stringent than the federal NAAQS. In addition to the six NAAQS, North Dakota also has a standard for hydrogen sulfide (H₂S).

3.2.1 Existing Conditions

Grand Forks AFB is located in USEPA Air Quality Control Region 8. Data from the North Dakota Department of Health (NDDH) air quality monitoring survey found that the ambient quality in North Dakota is generally good. The entire North Dakota Air Quality Control Region (including Grand Forks County) is in attainment for the NAAQS criteria pollutants. Grand Forks AFB is a major source for criteria air pollutants; however, the base is not major for HAPs.

Prevention of significant deterioration (PSD) regulations (40 CFR §52.21) establish air quality levels that cannot be exceeded by major stationary emission sources in specified geographic areas. Grand Forks AFB is located in a PSD Class II area, which means that the addition of a major source or a significant increase in emissions from stationary sources would be subject to limits under PSD regulations. A significant increase in emissions would include 100 tons per year (tpy) of CO; 40 tpy of NO_x, VOCs, or SO_x; or 15 tpy of PM₁₀. These limits do not include emissions from mobile sources during construction of facilities.

An air emissions survey, conducted for Grand Forks AFB for the calendar year 2006, found only minor levels of HAPs generated on base and actual emissions below PSD air quality levels (Weston 2007); however, Grand Forks AFB is a major stationary source because the potential to emit for NO_x and CO is more than 100 tpy. The 2006 emissions inventory from the NDDH Title V Permit for Grand Forks AFB is presented in Table 3-1.

TABLE 3-1

Air Pollutant Emissions (tpy) for 2006 at Grand Forks AFB

Proposed Demolition of 35 Buildings within the Munitions Storage Area, Grand Forks Air Force Base, North Dakota

Emissions (tons per year)	PM_{2.5}	PM₁₀	NO_x	SO_x	CO	VOC	HAPs
Actual Stationary Sources	1.6	1.6	20.5	0.23	15.9	9.6	1.2
Potential to Emit	14.5	14.6	176	4.8	119	46.9	6.3
Title V Major Source Limits	100	100	100	100	100	100	25

Source: Weston 2007

A diesel powered emergency generator with an approved air permit is located in Building 729. The generator has been disconnected and is no longer in use. The base has a request in to the NDDH to remove the generator from the base's air permit

3.3 Noise

Federal agencies must comply with the Noise Control Act of 1972 (42 USC §4901, et seq.), which establishes a policy to promote an environment free from noise harmful to the health and welfare of people. The range of ambient noise in the United States varies up to 50 decibels A-weighted (dBA) based on a number of different factors (USEPA 1974). Some of the factors are distance from major thoroughfares and airports, population density, and time of day. Noise is unwanted sound that disrupts normal activities or otherwise reduces the quality of the environment. It ranges from the threshold of human hearing at 10 dBA to 80 dBA, which most residents would find annoying. Ground-generated noise attenuates approximately 6 dB for every doubling of distance from the noise source.

The primary source of noise on Grand Forks AFB is from fixed-wing aircraft operations. Other sources include vehicular traffic and construction activities. The number of daily aircraft operations directly affects the existing noise levels at Grand Forks AFB. The USAF developed the Air Installation Compatible Use Zone (AICUZ) Program (Air Force Instruction [AFI] 32-7063) to protect Air Force installations from incompatible land use and to assist local, state, and federal officials in protecting and promoting public health, safety, and welfare by providing information on aircraft accident potential and noise.

The MSA is a designated industrial area and is not located near sensitive noise receptors. The existing noise levels are within the acceptable range for the designated use. Construction activities would be limited to Monday through Friday from 7:30 a.m. until 4 p.m.

3.4 Hazardous and Toxic Substances

Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, or materials that pose a potential hazard to human health and safety or the environment due to their quantity, concentration, or physical and chemical properties. Hazardous wastes are products characterized by their ignitability, corrosiveness, reactivity, and toxicity. Hazardous waste includes waste, which, due to its quantity, concentration, or physical/chemical/infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality, serious irreversible illness, or incapacitating reversible illness; or (2) pose a substantial threat to human health or the environment. Hazardous materials (e.g., petroleum fuels, flammable solvents, paints, corrosives, pesticides, and cleaners) are used and managed through the hazardous materials pharmacy (HazMart) program.

3.4.1 Hazardous Materials and Waste

Grand Forks AFB is a small quantity hazardous waste generator, greater than 100 kilograms (kg) but less than 1,000 kg per month. Grand Forks AFB does not maintain a permitted hazardous waste storage facility. Wastes are stored in containers and can be accumulated for up to 180 days at the central accumulation site located at Base Supply. The Grand Forks AFB Hazardous Waste Management Plan (Plan 7042-05) assigns organizational responsibilities for the handling of hazardous waste (Grand Forks AFB 2005a).

3.4.2 Solid Waste Management

Grand Forks AFB implements a mandatory recycling program to facilitate management of nonhazardous solid waste from military family housing, dormitories, industrial shops, offices, tenants, and contractors. Grand Forks AFB has a Qualified Recycling Program (Grand Forks AFB 2005a). Municipal waste generated at Grand Forks AFB is disposed of at the Grand Forks Municipal Landfill, approximately 12 miles from the base.

3.4.3 Environmental Restoration Program

The Environmental Restoration Program (ERP) at Grand Forks AFB was initiated in 1984. Grand Forks AFB is not on the USEPA National Priorities List for site cleanup (Grand Forks AFB 2006b). In 1993, six of the seven existing Installation Restoration Program (IRP) sites and 48 newly identified areas of concern were grouped together and reclassified as 20 solid

waste management units (SWMUs). SWMUs are subject to RCRA corrective action and are regulated by the base's RCRA corrective action permit. None of the ERP and RCRA sites on Grand Forks AFB are in close proximity to the MSA.

3.4.4 Storage Tanks

Gasoline, diesel fuel, heating fuel, jet petroleum (JP)-8, oil-water separator (OWS)-recovered oils, and used oils are stored in underground storage tanks (USTs) and aboveground storage tanks (ASTs) on Grand Forks AFB. Several of the buildings proposed for demolition have USTs and ASTs associated with them. The USTs associated with Buildings 702, 714, 715, 722, 730, and 733 have been removed (ACCI 1996). No USTs have been closed in place. There is no ongoing monitoring and no soil restrictions associated with the UST removals. An empty AST is located east of Building 715.

3.4.5 Special Hazards

Polychlorinated biphenyls (PCBs) are industrial compounds used in electrical equipment, primarily capacitors and transformers, because they are electrically nonconductive and stable at high temperatures. Because of their chemical stability, PCBs persist in the environment, bioaccumulate in organisms, and become concentrated in the food chain. Light switches and ballasts in the MSA buildings are likely to contain PCBs.

USEPA and OSHA implement regulations regarding remediation for ACM. Ambient air emissions of asbestos fiber are regulated by NDAC 33-15-13-02, which is the North Dakota Department of Health's adoption of the federal NESHAP regulations. These standards address the demolition or rehabilitation of buildings with ACM. Activities related to ACM on Grand Forks AFB also are regulated by the Asbestos Operating Plan and Asbestos Management Plan that were prepared to meet the intent of AFI 35-1052. Asbestos surveys conducted within the MSA in 1994, 2003, and 2005 indicate that multiple buildings within the MSA contain asbestos.

In general, buildings built in or prior to 1978 are likely to contain LBP. Buildings 702 - 711, 713, 714, 715, 718, 720, 721, 722, 728, 730, and 731 were constructed prior to 1978. The remainder of the buildings were constructed in 1980 or later. LBP surveys have not been conducted within the MSA.

3.5 Water Resources

Water resources include both surface water and groundwater. Surface water includes the lakes, rivers, streams, and wetlands within a watershed. Groundwater includes aquifers. The CWA is the primary federal law that protects the waters of the United States. Since 1972, amendments to the CWA and subsequent regulations have been developed to meet the objective of maintaining and restoring the integrity of those water bodies. The National Pollutant Discharge Elimination System (NPDES) permit program establishes federal limits on discharge of pollutants to surface waters.

3.5.1 Surface Water

Grand Forks AFB falls entirely within the watershed boundaries of the Turtle River watershed. The Turtle River watershed includes 311 square miles with the river actually crossing the northwestern corner of the base. Kellys Slough National Wildlife Refuge (NWR) is located east of the base. Storm water from the base and the MSA drains into Kellys Slough NWR. Hazen Creek flows west to east approximately one-half mile south of the MSA on the south side of US Highway 2. Surface water from the base is not connected to Hazen Creek because drainage structures along US Highway 2 serve as a barrier to drainage in that direction.

Surface water impoundments on Grand Forks AFB include the sewage treatment lagoons, the dormitory reflection pond, and the impoundment in the fire training area. These impoundments or prolonged standing water, however, are not located within the MSA. Surface water within the MSA is mainly limited to storm water runoff from rain events.

3.5.2 Storm Water

Four major storm water ditches convey storm water from a variety of individual storm water outlets across Grand Forks AFB. The ditches are manmade and discharge at the property boundary to receiving waters in the immediate vicinity of the facility under an approved NPDES permit (General Permit No. NDR02-0314, April 1, 2005). The south and north ditches collect storm water and discharge it to Kelly's Slough NWR, which is approximately 2 miles east of Grand Forks AFB. The west and northwest ditches collect and discharge storm water to the Turtle River.

The MSA is located within the drainage of the south ditch, which collects drainage from the central and southern portions of the base. The south ditch receives storm water from the MSA, vehicle maintenance, power production, the main bulk fuel storage area, hangars, selected aircraft maintenance areas, and non-industrial areas.

Storm water runoff within the MSA is conveyed primarily by sheet flow into storm water ditches in the MSA. These ditches converge and flow out of the MSA on the northern side into a grassy drainage ditch located to the north of the MSA. A storm outfall is located at the western end of this drainage ditch. The storm water in this drainage ditch ultimately discharges into Kelly's Slough NWR.

3.5.3 Groundwater

The groundwater beneath Grand Forks AFB consists of a shallow unconfined zone just below the ground surface and the deeper confined Emerado aquifer. At Grand Forks AFB, the Emerado aquifer is typically encountered approximately 60 feet below ground surface. The Emerado aquifer represents the shallowest viable source of groundwater; however, its usefulness is limited because of low yield and poor quality. Water from the Emerado typically contains high concentrations of dissolved solids, chloride, and sulfate. The Emerado aquifer is confined by the overlying lacustrine and glacial deposits. Groundwater from the Emerado Aquifer is sometimes used for irrigation in the region, but not on base.

Currently, GF AFB obtains potable water from the city of Grand Forks municipal water supply.

3.5.4 Floodplains

The shape of the Red River Valley has resulted from past glacial activity. Floods in this area are frequent. Flooding usually lasts only for a short period because of a vast network of drainage ditches and channelized streams. The Red River has several basin characteristics that make it susceptible to flooding, including an undersized main channel in relation to its floodplain, a small main channel gradient, and a northerly flow that synchronizes flooding with the northerly progression of the spring thaw. Floods typically occur during late spring resulting from quick temperature rise, spring rains, snowmelt, and soil-moisture content held over from the fall. Floods in the Red River Valley can be severe, such as the early 1997 flood that resulted in the evacuation of the entire town of Grand Forks.

Review of the National Flood Insurance Rate Map (FIRM) indicates that a small portion of the Turtle River's 100-year floodplain is located in the extreme northwest corner of the base where the river crosses the Grand Forks AFB boundary. No floodplains are present within the MSA.

3.5.5 Wetlands

Wetlands on Grand Forks AFB occur frequently in storm water drainage ways, low-lying depressions, and native pothole features. Large wetland areas on Grand Forks AFB are associated with the Turtle River and manmade drainage features leading from the wastewater treatment lagoons to Kelly's Slough NWR. Wetlands within Kelly's Slough NWR, located immediately east of the base, contain extensive emergent marshes. Other areas of the base that contain a high concentration of wetland conditions, not associated with storm water drainage features, include north central portions of the base at the end of the airfield, an area southwest of the airfield, areas along the eastern boundary, and the southeastern corner of the base.

Wetland inventory activities were conducted at Grand Forks AFB in 2004, 2005, and 2006. During these inventories, 280 wetland areas (304 acres) were discovered on the 5,151 acres of Grand Forks AFB. The U.S. Army Corps of Engineers (USACE) reviewed the results of these inventories and determined that they have jurisdiction over 83 (185 acres) of the 280 wetlands. The majority of the wetlands at Grand Forks AFB are less than 1 acre in size and are located across the base. Palustrine wetlands compose the majority of the wetlands at Grand Forks AFB, with lacustrine and riverine wetlands making up a small percentage of the total.

Storm water drainage ways (including the sites of the Proposed Action) and low-lying depressions on Grand Forks AFB generally have extensive, although intermittently localized palustrine emergent marsh and palustrine scrub-shrub wetland habitat. This is due to the decrease in elevation compared to the relatively flat terrain surrounding the Grand Forks AFB and the heavy clay soils that prevent rapid water absorption. Species most commonly associated with the emergent marsh and scrub-shrub wetland areas include cattail (*Typha latifolia* and *Typha angustifolia*), water smartweed (*Polygonum coccineum*), spike rush (*Eleocharis sp.*), water dock (*Rumex pseudonatronatus*), soft rush (*Juncus effusus*), Indianhemp dogbane (*Apocynum cannabinum*), sedge (*Carex sp.*), reed canary grass (*Phalaris arundinacea*), willow (*Salix exigua*), and cottonwood (*Populus deltoides*) (Grand Forks AFB 2004).

A CH2M HILL wetland scientist conducted a field review of wetland features within the MSA on August 23 and 24, 2007. During the wetland review, 20 wetlands (MSA 1, and MSA 1A through MSA 1S; Figure 3-1), were observed in association with the storm water drainage ways. A total of 1.3 acres of wetlands are located within the MSA. These 20 wetlands are palustrine emergent marsh and exhibited hydrological connection to each other via culverts. Wetland MSA-1A receives storm water runoff from the other storm water drainage ways within the MSA. MSA-1A connects to the large drainage ditch located north outside the MSA, which leads to the Kelly's Slough NWR via culverts and ditches. The dominant vegetation noted during the wetland review included cattail and spike rush. Soils were not verified within the MSA due to safety concerns with disturbing soils; however, soils in wetlands adjacent to the MSA, within the same Natural Resource Conservation Service mapped soil type, have been observed to be low chroma and high in clay content. In addition to these natural features, manmade structures such as culverts and helicopter denial poles were observed within the wetlands.

Following completion of the wetland review activities, Grand Forks AFB submitted a request to USACE for a preliminary jurisdictional review according to Section 404 of the CWA. USACE determined that, based on the hydrological connectivity to a regulated water body (Kelly's Slough NWR), the wetlands within the MSA were within the jurisdiction of USACE. Agency coordination is presented in Appendix B.

Activities with the potential impacts to wetlands require compliance with EO 11990 and should include coordination with the North Dakota State Water Commission and USACE.

3.6 Biological Resources

Grand Forks AFB is in the Bluestem Prairie region of the Northern Great Plains physiographic region (Grand Forks AFB 2003). This tall grass prairie community originally covered eastern North Dakota southward to South Dakota and Nebraska. The physiographic region and land management practices have influenced the occurrence of vegetation, wildlife, and threatened and endangered species.

3.6.1 Vegetation

The undeveloped areas of the MSA are maintained as a semi-improved area. Vegetation within the MSA is mowed one to two times a year. Grasses are generally a mixture of Kentucky Bluegrasses and Smooth Brome.

Although no formal vegetative species survey has been performed, a field biologist noted the following species during the 2007 wetland delineation; yellow sweet clover (*Melilotus officinalis*), absinth wormwood (*Artemisia absinthium* L.), leafy spurge (*Euphorbia esula* L.), and foxtail (*Alopecurus* sp.). Additional species are present in the MSA area but were not identified during the wetland delineation or subsequent site visits.

Vegetation to the south and west of the MSA has been restored to prime hay land using native grass species. These areas have been disked, reseeded, sprayed, and clipped to eradicate noxious weeds and to encourage native grass growth. Several species of noxious weeds have been noted in these areas such as Leafy Spurge and Canada Thistle. Pockets of isolated wetlands are scattered through this restored grassland area.

The field bordering the ditch to the north has not been mowed as is evidence by some of the tree volunteers such as sandbar willow (*Salix interior*), cottonwood (*Populus deltoides*), and green ash (*Fraxinus pennsylvanica*). This area consists primarily of smooth brome grassland. Pockets of wetlands are found scattered throughout this grassland area.

3.6.2 Wildlife

The semi-improved nature of the site, including the semiannual mowing, allows for some limited nesting, borrowing, and foraging opportunities for terrestrial species. Fox have been observed burrowing in the culverts and grassland nesting birds have been observed on territory during the breeding season. A security fence that inhibits movement of larger wildlife species encloses the MSA. The abandoned munitions storage facilities provide moderate habitat value for species, such as the Richardson's ground squirrel (*Spermophilus richardsonii*) and cliff swallows (*Hirundo pyrrhonota*). According to the INRMP, these wildlife species are considered nuisance wildlife species on Grand Forks AFB (Grand Forks AFB 2005b). Cliff swallow carcasses and their associated mud nests were observed on one munitions storage facility during a November 2007 site visit. Additionally, a skeleton of a Richardson's ground squirrel was observed near a facility bay door, and burrows were noted near some of the buildings.

3.6.3 Threatened and Endangered Species

There are eight state threatened bird species on this base. They include the bald eagle (*Haliaeetus leucocephalus*), chesnut-sided warbler (*Dendroica pensylvanica*), common merganser (*Mergus merganser*), Green Heron (*Butorides virescens*), Pileated Woodpecker (*Dryocopus pileatus*), Swamp sparrow (*Melospiza georgiana*), whip-poor-will (*Caprimulgus vociferus*), white-throated sparrow (*Zonotrichia albicollis*), Brewer's Sparrow (*Spizella breweri*), and Hooded Merganser (*Mergus cucullatus*).

Bald eagles have been observed using the sewage lagoons as fall forage for several years in a row (2003 through 2007). Bald eagles were de-listed from the federal list of threatened and endangered species in 2007.

During a field visit in June 2007, bobolinks (*Dolichonyx oryzivorus*) were observed singing on territory in the grasslands inside the MSA. Bobolinks are a North Dakota species of concern. Several of the special species of concern grassland birds have been observed surrounding the MSA. It is likely that these species also browse within the adjacent MSA compound foraging for food and seeking nesting sites. There are 29 birds listed on the North Dakota's top 100 species of conservation concern on Grand Forks AFB, as well as 18 birds classified as of conservation concern.

Two occurrences of the state threatened plant the yellow lady slipper (*Cypripedium calceolus*) are located on Grand Forks AFB.

Grand Forks AFB initiated early coordination with the USFWS North Dakota Field Office and the North Dakota Game and Fish Department to determine if additional information regarding federally listed species in or around the MSA is available (Appendix B). The USFWS indicated that no threatened or endangered species are known to exist within the project area. The North Dakota Game and Fish Department indicated that the project would not have any significant adverse impacts on wildlife or wildlife habitat.

3.7 Socioeconomic Resources

The ROI for this analysis is Grand Forks County. Socioeconomic conditions in the ROI could be affected if a Proposed Action caused changes in the rate of population growth, demographic characteristics, or employment. In addition to these characteristics, populations of special concern, as addressed by EO 12898 and EO 13045 (Environmental Justice and Protection of Children), are identified and analyzed in Sections 3.14 and 4.14. The local housing market, schools, community services, and infrastructure were not evaluated because there are no personnel changes associated with the Proposed Action that would affect demand for these services.

3.7.1 Population

Grand Forks County had a 3.2 percent decrease in population from the 1990 Census to a population of 66,109 in 2000. The median age was 29.2 years. The city of Grand Forks had a 2000 Census population of 49,321, which was a 0.5 percent decrease from the 1990 figures. The countywide population declined during this period because of two major events: a citywide flood that occurred in the city of Grand Forks and the deactivation of the 321st Missile Group in 1997, following a 1995 Base Realignment and Closure (BRAC) Commission decision to realign the intercontinental ballistic missiles (ICBMs) from the 321st Missile Group missile complex to Malmstrom AFB in Montana. Grand Forks County had 10.3 percent of the total population in North Dakota in 2000. The state population grew by 0.5 percent between 1990 and 2000 (U.S. Census Bureau 2003).

In 2004, approximately 3,650 individuals live on Grand Forks AFB in 1,358 family housing units and 613 dormitory rooms provided for military service members and their families.

3.7.2 Income and Employment

Per capita income for 2001 in Grand Forks County was \$26,031, while the state of North Dakota had a per capita income of \$29,248 (Bureau of Economic Analysis 2003). Grand Forks AFB is the third-largest employer in Grand Forks County, with approximately 2,624 active duty military employees and 347 civilian employees in 2004.

In 2000, Grand Forks County had a labor force of 37,211, from a population of 52,229 persons 16 years and older (U.S. Census Bureau 2003). The civilian labor force was 94 percent and the military labor force was 6 percent of the total labor force. Average monthly unemployment in both Grand Forks County and North Dakota was 3.5 percent in 2003 (North Dakota Job Service 2003).

3.8 Cultural Resources

Cultural resources consist of historic properties, which include both archeological resources (prehistoric and historic) and architectural resources potentially eligible for inclusion in the National Register of Historic Places (NRHP); as well as traditional cultural properties, which may include archeological sites, buildings, prominent topographic features, objects, habitats, plants, animals, and minerals that hold importance or significance to Native Americans or other ethnic groups in the persistence of traditional culture.

Such resources are protected under several laws, including the Native American Graves Protection and Repatriation Act and the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires federal agencies with jurisdiction over a federal or federally assisted or federally licensed undertaking to consider the effects of that undertaking on properties that are listed eligible for listing on the NRHP; and to provide an opportunity for comment and consultation with the State or Tribal Historic Preservation Officer (SHPO or THPO). The action must also comply with AFI 32-7065, Cultural Resources Management.

3.8.1 Archeological Resources

The 2003 Integrated Cultural Resources Management Plan (ICRMP) developed for Grand Forks AFB includes a synopsis of previous cultural resources surveys and architectural inventories conducted, and outlines and assigns responsibilities for the management and preservation of cultural resources at the base (AMC 2005). The ICRMP indicates that Grand Forks AFB has completed its inventory and identification of archeological resources under Section 110 of the NHPA and that no new inventory efforts are needed.

Six archeological sites and six isolated finds were identified on Grand Forks AFB. None are eligible for the NRHP (AMC 2005). No known archeological sites exist within the MSA.

3.8.2 Historic Architectural Resources

Historic architectural surveys have been completed for Grand Forks AFB. Buildings 313 and 606, are considered potentially eligible for inclusion on the NRHP. The base underwent consultation with the North Dakota Historical Society regarding Buildings 703, 704, 705, 706, 707, and 714 which are historic structures within the MSA. Because of Section 106 consultation by the base for the purposes of this EA, the undertaking has no affect on historic places.

3.8.3 Traditional Cultural Properties

Grand Forks AFB has not identified Native American sacred sites or properties of traditional religious and cultural importance on the base. During the development of the ICRMP, Grand Forks AFB sent letters to the Fort Berthold Reservation, the Fort Totten Reservation, the Standing Rock Reservation, the Turtle Mountain Band of Chippewa, and the Indian Affairs Commission; to inquire whether there are known sacred sites or other culturally sensitive areas on Grand Forks AFB. To date, no new information has been acquired.

3.9 Land Use

Grand Forks AFB land use plan lists ten specific land uses. The predominant land use at Grand Forks AFB is airfield, accounting for nearly 42 percent of the base's total area. The next largest land use is open space. Together, open space and airfield land uses account for nearly two-thirds of the base's total land area. Land within the MSA is classified as industrial.

3.10 Transportation Systems

The existing roadway systems in Grand Forks County provide ready access to Interstate 29 and the regional highway systems. There are two entrances to the base. The primary entrance is the main gate, which handles most off-base traffic and provides access to Steen Boulevard, the primary east-west roadway. The South Gate connects U.S. Highway 2 to Eielson Street. The traffic on base is characterized as slight, except for rush hour in the morning and afternoon.

Steen Boulevard acts as the center spine of the base roadway system. It begins at the main base entrance on County Highway B-3 and terminates at the air operations area. The first two of four primary intersections along Steen Boulevard are for accessing family housing; the third intersection accesses Holzapple Street for commercial areas, and the fourth intersection accesses Eielson Street for flight line operations. Eielson Street is the longest single road at Grand Forks AFB, spanning the main base north to south, crossing Steen Boulevard. North Eielson Street provides access to the northern end of the flight line, while South Eielson Street is the connection to the southern end of the flight line area and the base industrial area.

The entrance to the MSA is along 1st Avenue. The MSA is surrounded by a security fence and is only accessible through a secured gate.

3.11 Airspace/Airfield Operations

Grand Forks AFB has one runway, which is 12,350 feet long. The primary unit that utilizes the airfield is the 319 ARW. No other tenant units use the airfield. KC-135s are currently the predominant type of aircraft that use the airfield. This mission is scheduled to transition out over the next two years and a new mission of Unmanned Aerial Vehicles is scheduled to move on base in its place. A small percentage of transient aircraft, from jet fighters to C-5 transports, use Grand Forks AFB annually.

The MSA is located on the southeastern portion of the base, away from the airfield.

3.12 Safety and Occupational Health

Health and safety issues relevant to the Proposed Action include construction job site safety, and worker occupational health and safety. The potential areas of concern for worker health and safety at Grand Forks AFB are the defined clear zones associated with airfield runways defined under 14 CFR 77 (*Federal Aviation Regulations - Objects Affecting Navigable Airspace*). Permissible uses, structure heights, and construction material in these areas are prescribed to protect both the safety of the aircrews and the safety of persons and property on the airfield.

As part of the contracts for demolition services, standard terms and conditions include safety as a priority. Areas of concern include compliance with regulations typical to demolition projects, such as confined space regulations; minimum personal protection equipment standards including footwear, hardhats, and eye protection; heavy equipment operations; and limited access to the airfield.

3.13 Environmental Management

The Environmental Flight (319 CES/CEV) manages the environmental programs in accordance with applicable federal, state, local, DOD, and Air Force regulations, standards, and laws that apply to Grand Forks AFB.

3.13.1 Pollution Prevention

The pollution prevention (P2) program at Grand Forks AFB sets objectives for the reduction of air, land, surface water, and groundwater pollution at the base. The base's P2 plan focuses on eight subject areas: ozone-depleting chemicals, USEPA-17 industrial toxic pollutants, hazardous waste, municipal solid waste, affirmative procurement of environmentally friendly products, energy conservation, air and water pollutant reduction, and training.

Some of the P2 strategies presented to achieve these objectives include source reduction (defined by the Federal Pollution Prevention Act as a practice that reduces the amount of hazardous substance, pollutant, or contaminant released into the environment prior to recycling, treatment, and disposal) and waste recycling (defined as minimizing the generation of waste by recovering usable products that might otherwise become waste).

3.13.2 Geology and Soils

Grand Forks County is located near the eastern edge of the Williston Structural Basin. The bedrock strata underlying the county, dip gently to the west toward the center of the basin.

Surficial deposits at Grand Forks AFB are comprised of late Wisconsin glacial drift and are approximately 225 feet thick beneath the base. The glacial deposits beneath the Agassiz Lake Plain consist of up to 95 feet of clay and silt-rich lake deposits, underlain by glacial till containing isolated deposits of sand and gravel. The glacial deposits are underlain by the sandstones, siltstones, and shales of the Lower Cretaceous Fall River and Lakota Formations, which in turn are unconformably underlain by the limestones and dolomites of the Ordovician Red River Formation. The oldest and deepest rocks underlying the area are Precambrian igneous and metamorphic granites, schists, and greenstones. The depth to these rocks is several hundred feet in eastern Grand Forks County, and increases rapidly to over 2,000 feet in the western portion of the county (Grand Forks AFB 2005b).

The soils at Grand Forks AFB generally formed in glaciolacustrine deposits overlying glacial till. The following information was taken from the May 1981 Soil Survey of Grand Forks County, North Dakota, U.S. Department of Agriculture, Soil Conservation Service, in cooperation with North Dakota Agricultural Experiment Station (Doolittle et al. 1981). Grand Forks AFB is within prime and unique farmlands. This land is designated as prime farmland and is subject to the requirement of the Farmland Protection Policy Act.

The following six soils associations encompass Grand Forks AFB: Antler-Gilby-Svea, Glyndon-Gardena, LaDelle-Cashel, Bearden-Antler, Ojata and Wyndmere-Tiffany-Arveson (Grand Forks AFB 2005b).

The MSA is comprised entirely of the Glyndon soil series (Doolittle et al. 1981). These soils are deep, level to nearly level, somewhat poorly drained to moderately well drained, and

medium textured. They occur as slight swells and swales on glacial lake plains. This association makes up about 9 percent of the soils in Grand Forks County, and consists of 56 percent Glyndon soils, 18 percent Gardena soils, and about 26 percent soils with minor extent. This association is present in sub-parallel northwest-southeast trending swells in the eastern and central portions of the base in the housing, operations, and airfield areas.

Most areas of this soil are used for cultivated crops. Wind blown soil erosion is the major cultivation-related management concern. This association is generally suited to sanitary facilities and building site development, with wetness being the main limitation (Grand Forks AFB 2005b).

Demolition activities within the MSA would consist of minimal soil disturbance. The buildings specified for demolition would be removed including foundations and limited regrading of surface soil would occur in surrounding areas.

3.14 Environmental Justice and Protection of Children

3.14.1 Environmental Justice

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 1994) requires each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.” According to the CEQ (1997), a minority population can be described as being composed of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black, not of Hispanic origin, or Hispanic, and exceeding 50 percent of the population in an area or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population.

The U.S. Census Bureau defines the national poverty thresholds, which are measured in terms of household income dependent upon the number of persons within the household. Individuals falling below the poverty threshold (\$17,524 for a household of four in 2000) are considered low-income individuals. Census tracts where at least 20 percent of the residents are considered poor are known as poverty areas (U.S. Census Bureau 1995).

The project areas are within Census Tracts 114 and 119. Census Tract 119 covers the entire base and Tract 114 is the area where the North Ditch is located. Table 3-2 presents characteristics of the population in Census tracts 114 and 119. Census tract data indicate there are no concentrations of low-income or minority populations near the boundaries of Grand Forks AFB, and also that there are very few residences located near the project areas.

TABLE 3-2
Population Characteristics of Census Tracts 114 and 119
Proposed Demolition of 35 Buildings within the Munitions Storage Area, Grand Forks Air Force Base, North Dakota

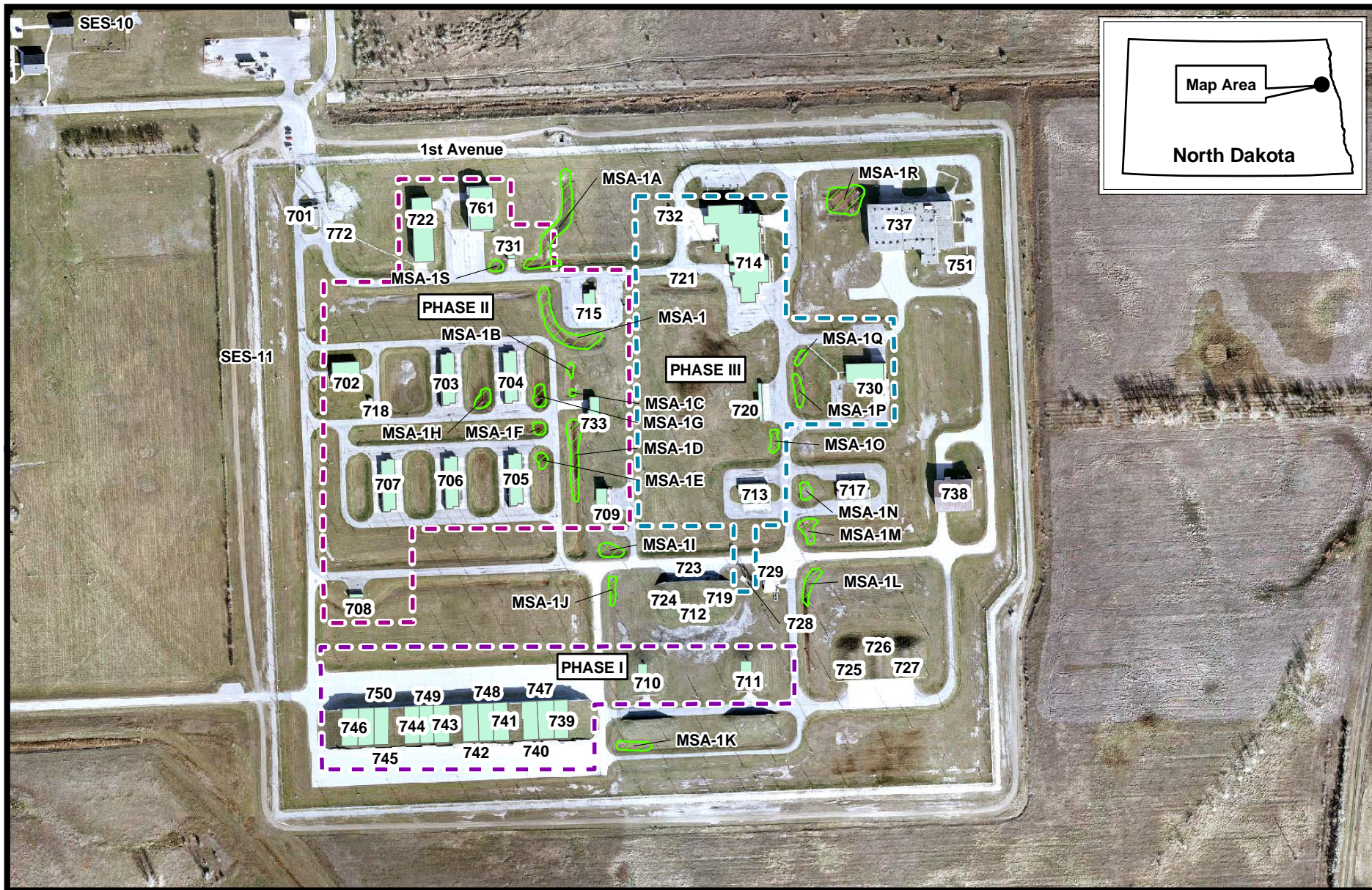
Population Characteristic	Census Tract 114 (Number/%)	Census Tract 119 (Number/%)
Population	2,530/100	4,832/100
White	2,464/97.4	3,907/80.9
African American	15/0.6	406/8.4
American Indian and Alaska Native	21/0.8	43/0.9
Asian	9/0.4	117/2.4
Native Hawaiian and Other Pacific Islander	0/0	15/0.3
Hispanic	26/1.0	289/6.0
Income in 1999 Below Poverty Level	252/9.9	181/4.2

Source: U.S. Census, 2000


3.14.2 Protection of Children

On April 21, 1997, President Clinton issued EO 13045, "Protection of Children from Environmental Health Risks and Safety Risks," which seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of government policies, programs, activities, and standards.

Children are present at Grand Forks AFB as residents of family housing and as users of recreational and community facilities. The MSA is located in an industrial area of the base and is securely fenced. Children do not have access to the MSA.



Legend

 Wetland Assessment Boundary

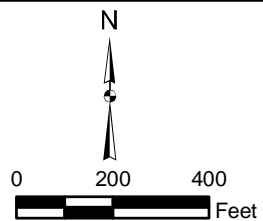


Figure 3-1
 WETLANDS WITHIN THE
 MUNITIONS STORAGE AREA
 Environmental Assessment Report
 Grand Forks AFB, North Dakota

Environmental Consequences

4.1 Introduction

This section presents the potential environmental consequences of implementing the Proposed Action and alternatives. The potential impacts to the human and natural environment were evaluated relative to the existing environment described in Section 3.

4.2 Air Quality

Air quality at Grand Forks AFB could be affected if the proposed demolition activities exceeded the NAAQS or NDAAQS, jeopardized the area's attainment status, or exposed sensitive receptors to increased pollutant concentrations.

4.2.1 Proposed Action

The Proposed Action would result in short-term emissions of pollutants from equipment and vehicular traffic during demolition. Emissions from fuel-burning internal combustion engines (such as heavy equipment) could temporarily increase the levels of some criteria pollutants, including CO, NO₂, O₃, PM₁₀, and non-criteria pollutants such as VOCs. These increases would be temporary. Fugitive dust would be generated by demolition activities. To reduce temporary impacts to air quality, dust abatement measures, such as watering disturbed areas and/or roads would be used.

The Proposed Action would not result in a net increase in emissions from stationary sources, or major modifications to an existing major source that would be subject to PSD requirements. No permitted air sources are located within the MSA; however, there are small boilers and heaters located in some of the buildings that will be demolished. No new emissions sources will be added to the MSA. No long-term impacts to air quality are anticipated as a result of the Proposed Action.

The CAA General Conformity Rule (40 CFR Parts 6, 51, and 93 and 93) requires federal agencies to make written conformity determinations for federal actions in or affecting nonattainment or maintenance areas. Proposals for federal actions must include evaluations of potential changes in direct and indirect air emissions caused by the actions and must determine whether the actions conform to applicable state and federal implementation plans.

The General Conformity Rule is not applicable to the Proposed Action (or alternatives) because the Grand Forks AFB region is in attainment for the criteria pollutants.

4.2.2 Alternative Action

No long-term impacts are anticipated to air quality as a result of the Alternative Action. The Alternative Action would result in short-term emissions of pollutants from equipment and

vehicular traffic during demolition. Overall impacts to air quality from the Alternative Action are expected to be similar to those under the Proposed Action; however, under the Alternative Action, emissions from demolition equipment would occur over a shorter duration.

4.2.3 No Action Alternative

The No Action Alternative would not have an impact on air quality because no demolition activities are associated with this alternative.

4.3 Noise

An increase in noise exposure levels to 73 dB (24-hour average sound level) and above for 1 year (a level that could result in hearing loss in a portion of the general public) would be considered a significant impact (U.S. Army 1978).

4.3.1 Proposed Action

The Proposed Action would not result in long-term noise impacts. Short-term minor increases in noise levels would occur during demolition activities. These increases would occur during daylight hours. In addition, the MSA is located within an industrial area of the base and there are no sensitive receptors near the MSA.

All motorized construction equipment would be required to have mufflers constructed in accordance with the equipment manufacturer's specifications or a system of equivalent noise reducing capacity. It would also be required that mufflers and exhaust systems be maintained in good working condition, free from leaks and holes.

4.3.2 Alternative Action

No long-term impacts are anticipated to noise as a result of the Alternative Action. Short-term minor impacts to noise would occur during demolition activities. Overall impacts to noise from the Alternative Action are expected to be similar to those under the Proposed Action; however, under the Alternative Action, noise from demolition equipment would occur over a shorter duration.

4.3.3 No Action Alternative

The No Action Alternative would not have an impact on Noise because no demolition activities are associated with this alternative.

4.4 Hazardous and Toxic Substances

Potentially significant impacts could occur if the Proposed Action or alternatives substantially increased the human health risks or environmental exposure to hazardous wastes and materials.

4.4.1 Proposed Action

No short-term or long-term impacts from hazardous and toxic substances are anticipated as a result of the Proposed Action. The Proposed Action would not disturb the ERP or RCRA sites on Grand Forks AFB. No USTs associated with the buildings proposed for demolition remain within the MSA. The empty AST outside Building 715 would be removed during demolition activities.

Short-term minor adverse impacts to solid waste are expected as a result of the Proposed Action. Solid waste debris would be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert construction debris would be disposed of at an approved location, such as Berger Landfill. PCB-containing materials would be removed prior to demolition and taken to the HazMart on Grand Forks AFB for disposal. Regulated (friable) ACM must be removed prior to demolition and disposed of in accordance with applicable environmental laws and regulations. ACM should be handled only by licensed and qualified personnel. LBP does not need to be remediated prior to demolition; however, workers must be protected from exposure during demolition.

4.4.2 Alternative Action

No short-term or long-term impacts from hazardous and toxic substances are anticipated as a result of the Alternative Action. The Proposed Action would not disturb of the ERP or RCRA sites on Grand Forks AFB. There are no remaining USTs associated with the buildings proposed for demolition. The empty AST outside Building 715 would be removed during demolition activities.

Short-term minor adverse impacts to solid waste are expected as a result of the Alternative Action. Solid waste debris will be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert construction debris will be disposed at an approved location, such as Berger Landfill. PCB-containing materials would be removed prior to demolition and taken to the HazMart on Grand Forks AFB for disposal. Regulated (friable) ACM must be removed prior to demolition and disposed of in accordance with applicable environmental laws and regulations. ACM should only be handled by licensed and qualified personnel. LBP does not need to be remediated prior to demolition; however, workers must be protected from exposure during demolition.

4.4.3 No Action Alternative

The No Action Alternative would not have short-term or long-term adverse impacts on hazardous materials or wastes. The No Action Alternative would have a long-term adverse impact on ACM. As these buildings continue to degenerate, potential for ACM to deteriorate to a point where they create an environmental risk is increased.

4.5 Water Resources

4.5.1 Surface Water

Proposed Action

Short-term minor adverse impacts could occur as a result of implementation of the Proposed Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water, in turn degrading water quality in the surface waters. Erosion control best management practices (BMPs) would be followed so that soils or demolition materials would not migrate off base during the demolition phase. Long-term impacts are not anticipated.

Alternative Action

Short-term minor adverse impacts could occur as a result of implementation of the Alternative Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water, in turn degrading water quality in the surface waters. Erosion control best management practices (BMPs) would be followed so that soils or demolition materials would not migrate off base during the demolition phase. Long-term impacts are not anticipated.

No Action Alternative

The No Action Alternative would not have an impact on surface water.

4.5.2 Storm Water

Proposed Action

Short-term adverse and long-term positive impacts are expected as a result of implementation of the Proposed Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water. Storm water runoff during the demolition phase in the MSA would be controlled through implementation of an erosion and sediment control plan. In the long term, the demolition activities would remove existing buildings from the MSA, thereby decreasing impervious surfaces.

Alternative Action

Short-term adverse and long-term positive impacts are expected as a result of implementation of the Alternative Action. In the short term, demolition activities could increase surface erosion and increase the dissolved solid and sediment content in storm water. Storm water runoff during the demolition phase in the MSA would be controlled through implementation of an erosion and sediment control plan. In the long term, the demolition activities would remove existing buildings from the MSA, thereby decreasing impervious surfaces.

No Action Alternative

The No Action Alternative would not have an impact on storm water.

4.5.3 Groundwater

Proposed Action

Short-term impacts to groundwater are expected during demolition activities under the Proposed Action. Excavations during demolition could fill with water from the shallow groundwater. This water would need to be pumped from the excavations, filtered, and discharged as surface water. Erosion control plans would be required to minimize the amount of soil and sediment entering the water during construction and permits would be required for the discharge of the water. The acquisition of the discharge permit would be part of the design and construction process.

No long-term impacts are anticipated to groundwater as a result of demolition activities within the MSA.

Alternative Action

Short-term impacts to groundwater are expected during demolition activities under the Alternative Action. Excavations during demolition could fill with water from the shallow groundwater. This water would need to be pumped from the excavations, filtered, and discharged as surface water. Erosion control plans would be required to minimize the amount of soil and sediment entering the water during construction and permits would be required for the discharge of the water. The acquisition of the discharge permit would be part of the design and construction process.

No long-term impacts are anticipated to groundwater as a result of demolition activities within the MSA.

No Action Alternative

The No Action Alternative would not have an impact on groundwater because no ground disturbing activities will occur under the No Action Alternative.

4.5.4 Floodplains

Proposed Action

No short-term or long-term impacts are anticipated to floodplains as a result of demolition activities within the MSA because there are no floodplains within the MSA.

Alternative Action

No short-term or long-term impacts are anticipated to floodplains as a result of demolition activities within the MSA because there are no floodplains within the MSA.

No Action

The No Action Alternative would not have an impact on floodplains because there are no floodplains within the MSA.

4.5.5 Wetlands

Proposed Action

The Proposed Action would have long-term adverse impacts on wetlands within the MSA. As part of the demolition activities, the culverts under the driveways to the buildings would be removed, and the drainage ditches and swales containing the wetlands would be filled. After completion of demolition activities, the disturbed areas would be graded level and seeded. Design documents showing extent of the demolition activities are not complete. Based upon the locations of the wetlands adjacent to the buildings proposed for demolition, it is anticipated that up to 1.3 acres of wetlands could be filled during these activities. The actual amount of wetlands that would be filled would vary depending upon final grading plans for the site.

Based upon this impact to wetlands, a Section 404 CWA permit would be required prior the commencement of demolition activities. The acquisition of the Section 404 permit would be part of the design and construction process. The Section 404 permit would be obtained prior to any ground disturbing activities. Mitigation for wetlands impacts would be required. Mitigation could include constructing new wetlands or purchasing wetland credits from an approved wetland bank.

Alternative Action

The Alternative Action would have long-term adverse impacts on wetlands within the MSA. As part of the demolition activities, the culverts under the driveways to the buildings would be removed, and the drainage ditches and swales containing the wetlands would be filled. After completion of demolition activities, the disturbed areas would be graded level and seeded. Design documents showing extent of the demolition activities are not complete. Based upon the locations of the wetlands adjacent to the buildings proposed for demolition, it is anticipated that up to 1.3 acres of wetlands could be filled during these activities. The actual amount of wetlands that would be filled would vary depending upon final grading plans for the site.

Based upon this impact to wetlands, a Section 404 CWA permit would be required prior the commencement of demolition activities. Mitigation for impacted wetlands would be required. Mitigation could take the form of constructing new wetlands or purchasing wetland credits from an approved wetland bank.

No Action

The No Action Alternative would not have an impact on wetlands.

4.6 Biological Resources

4.6.1 Proposed Action

The Proposed Action would have short-term minor impacts on vegetation, wildlife, and threatened and endangered species within the MSA during demolition. Noise from demolition equipment and ground disturbing activities would discourage animals from entering the MSA. The Proposed Action would not result in long-term changes to the

vegetative or wildlife resources and would not have long-term impacts on federally or state-listed endangered species or state species of concern. The Proposed Action would result in the temporary removal of some vegetation (such as grasses) during demolition activities of structures, but will ultimately increase vegetation areas within the MSA.

4.6.2 Alternative Action

The Alternative Action would have short-term minor impacts on vegetation, wildlife, and threatened and endangered species within the MSA during demolition. Mowed lawn will be disturbed during demolition activities; however, the disturbed areas will be graded and reseeded. Demolition activities could temporarily displace wildlife from the immediate vicinity of the project area; however, no long-term impacts to wildlife would occur.

4.6.3 No Action Alternative

The No Action Alternative would have no adverse affect on biological resources within the MSA because demolition would not occur and vegetation and wildlife would not be disturbed.

4.7 Socioeconomic Resources

4.7.1 Proposed Action

None of the actions described in Section 2 for the Proposed Action would have adverse impacts on the socioeconomic resources at Grand Forks AFB or the surrounding region. No change in population or the permanent workforce would result from the Proposed Action. Due to the small nature of this project, no migration of construction workers from outside the area is expected.

Short-term minor increases in local economic activity would be generated by construction jobs, purchase of construction materials and services, as well as convenience retail sales near the base to construction workers, if the Proposed Action were implemented.

4.7.2 Alternative Action

No short-term or long-term adverse impacts are anticipated on the socioeconomic resources at or around Grand Forks AFB as a result of the Alternative Action. Short-term minor increases in local economic activity would be induced by construction jobs, purchase of construction materials and services, as well as convenience retail sales near the base to construction workers, if the Alternative Action were implemented.

4.7.3 No Action Alternative

Under the No Action Alternative, socioeconomic conditions would not change and, therefore, no impacts would occur.

4.8 Cultural Resources

4.8.1 Proposed Action

The Proposed Action would have no impact on cultural resources. Buildings 703, through 707, and 714 are historic structures, but because of recent Section 106 consultation by the base for purposes of this EA, the undertaking has no affect on historic places. Agency coordination letters are presented in Appendix B. There are no known archaeological resources within the MSA.

4.8.2 Alternative Action

The cultural resources impacts of the Alternative Action are the same as for the Proposed Action.

4.8.3 No Action Alternative

The No Action Alternative would not affect known cultural resources.

4.9 Land Use

4.9.1 Proposed Action

The Proposed Action would not result in changes to land use within the MSA and would not be in conflict with existing plans and policies.

4.9.2 Alternative Action

The Alternative Action would not result in changes to land use within the MSA and would not be in conflict with existing plans and policies.

4.9.3 No Action Alternative

The No Action Alternative would have long-term minor adverse impacts to land use outside the MSA. QD arcs would not be decreased, and land adjacent to the MSA would not become buildable.

4.10 Transportation Systems

4.10.1 Proposed Action

No long-term negative impacts are anticipated as a result of the Proposed Action. Short-term minor adverse impacts would be anticipated. During construction, additional cars with workers and construction and supply trucks would need to gain access to Grand Forks AFB. These additional trips would be temporary in duration. Because they would occur throughout the day, many of these trips would occur outside of peak hours when the roadways experience a reduced level of use. The additional vehicle traffic expected during construction is not expected to significantly increase traffic on roadways within or surrounding Grand Forks AFB. Impacts to the transportation system, associated with the Proposed Action, are expected to be less than significant.

The Proposed Action would not add long-term vehicle trips to or from Grand Forks AFB.

4.10.2 Alternative Action

The transportation impacts of the Alternative Action are the same as to the Proposed Action.

4.10.3 No Action Alternative

The No Action Alternative would not affect traffic conditions on or around Grand Forks AFB because no construction traffic would be generated if the demolition activities did not occur.

4.11 Airspace/Airfield Operations

4.11.1 Proposed Action

No impacts to the airspace or airfield operations are anticipated as a result of implementation of the Proposed Action because demolition would not occur on or near the airfield.

4.11.2 Alternative Action

No impacts to the airspace or airfield operations are anticipated as a result of implementation of the Alternative Action because demolition would not occur on or near the airfield.

4.11.3 No Action Alternative

No impacts to the airspace or airfield operations are anticipated as a result of implementation of the No Action Alternative because no demolition activities would occur.

4.12 Safety and Occupational Health

4.12.1 Proposed Action

The Proposed Action would have a long-term beneficial impact on safety. After the demolition of the buildings within the MSA, the QD arcs would decrease. Prior to demolition, a team from the safety unit on Grand Forks AFB would survey the area to determine whether munitions or unexploded ordnance remain within the proposed demolition areas of the MSA. The Contractor would have to follow proper precautions to provide safe access for construction workers. Because construction would occur within the confines of the MSA, no concern for worker safety from airfield operations is expected.

In the long-term, the Proposed Action would improve occupational safety to workers at Grand Forks AFB. As the buildings within the MSA continue to degenerate, potential health issues related to asbestos, LBP, mold, and bird dropping would continue to increase.

4.12.2 Alternative Action

The Alternative Action would have a long-term beneficial impact on safety. After the demolition of the buildings within the MSA, the QD arcs would decrease. Prior to

demolition, a team from the safety unit on Grand Forks AFB would survey the area to determine whether munitions or unexploded ordnance remain within the proposed demolition areas of the MSA. The Contractor would have to follow proper precautions to provide safe access for construction workers. Because construction would occur within the confines of the MSA, no concern for worker safety from airfield operations is expected.

In the long-term, the Alternative Action would improve occupational safety to workers at Grand Forks AFB. As the buildings within the MSA continue to degenerate, potential health issues related to asbestos, LBP, mold, and bird dropping would continue to increase.

4.12.3 No Action Alternative

The No Action Alternative would not have impacts on the safety and occupational safety of construction workers, but does have the potential for affecting the safety and health of workers at Grand Forks AFB who would need to enter buildings potentially contaminated with friable asbestos, LBP, mold, or bird droppings and carcasses.

4.13 Environmental Management

Potentially significant geological impacts of a Proposed Action are those that would alter aquifer recharge zones, or are located near faults or other geological hazards. Impacts to soils would include erosion and runoff. Pollution prevention impacts of a Proposed Action include those that would significantly increase the air, land, surface water, and groundwater pollution at the base, or would increase the generation and disposal of wastes (that is, hazardous, municipal, or nonhazardous solid wastes).

4.13.1 Proposed Action

The Proposed Action would not have an impact on environmental management at the base. Demolition activities associated with building structures would not affect the underlying geological structure of the area. Soils exposed during the demolition activities at the MSA would be subject to increased runoff and erosion. Appropriate BMPs for erosion control and sedimentation would be implemented during demolition.

Although the MSA is located in a prime farmland soil series, the area is highly developed and not currently in use as farmland. Reversion of the land within the MSA to agricultural land would not be likely due to the proximity to munitions storage buildings, and security fencing restricting access to the area. Therefore, no further action is required under the Farmland Protection Policy Act of 1981 (Title 7 CFR, Part 658; the Natural Resources Conservation Service Final Rule, Farmland Policy, revised 1 January 1998).

4.13.2 Alternative Action

The Alternative Action would not have an impact on environmental management or soils or geologic features at the base.

4.13.3 No Action Alternative

The No Action alternative would not have an impact environmental management or soils or geologic features at the base.

4.14 Environmental Justice and Protection of Children

4.14.1 Proposed Action

No impacts to low-income or minority populations or children are anticipated as a result of implementation of the Proposed Action. There are no concentrations of low-income or minority populations near the boundaries of Grand Forks AFB or the project area. Children do not have access to the MSA due to the security fencing.

4.14.2 Alternative Action

No impacts to low-income or minority populations or children are anticipated as a result of implementation of the Alternative Action. There are no concentrations of low-income or minority populations near the boundaries of Grand Forks AFB or the project area. Children do not have access to the MSA due to the security fencing.

4.14.3 No Action Alternative

No impacts to low-income or minority populations or children are anticipated under the No Action Alternative.

4.15 Indirect and Cumulative Impacts

The CEQ regulations state that the cumulative effects analysis within an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR §1508.7).

Cumulative effects are likely to arise when a relationship exists between a Proposed Action and other actions expected to occur in a similar location or during a similar timeframe. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide in time would tend to offer a higher potential for cumulative effects.

The scope of the cumulative effect analysis involves both the geographic extents of the effects and the timeframe in which the effects could be expected to occur. Actions occurring within or adjacent to the region are considered relevant for cumulative effect analysis.

The potential adverse impacts to resources of interest in this EA are short term and minor. The Proposed Action would be limited to the interior of the MSA and would not have long-term adverse impacts to resources on Grand Forks AFB, Grand Forks County, or the state of North Dakota. Impacts to wetland resources would be mitigated by creating wetlands elsewhere or purchasing credits in a mitigation bank.

Grand Forks AFB has 32 proposed projects listed in the Capital Improvements Project List in the General Plan (Grand Forks AFB 2006a). Of these 32 projects, none are located in the immediate vicinity of the MSA and only two are currently underway.

Grand Forks AFB is in the process of demolishing the A-ramp and the alert facility on the southwestern section of the base. This action is occurring to demolish facilities and

infrastructure that are no longer needed, remove excess buildings and utilities that represent sources of potential contamination, and remove excess buildings and facilities that are in the 7:1 flight envelope, clear zone, 50:1 approach-departure clearance zone, and require flight line waivers. This project is not expected to cause long-term impacts to the social, economic, or environmental resources at the base.

Grand Forks AFB is in the process of constructing a ground-to-air transmitter and receiver (GATR) facility on Grand Forks AFB. The Communication Squadron at Grand Forks AFB is constructing a GATR facility and installing new GATR communication antennas and systems for tactical aircraft control and commercial air traffic control. The antennas are used to provide quick deployment and high-bandwidth communications in remote, hard-to-reach areas. These systems allow operators in central locations to communicate with aircraft operating in the locale where the ground-to-air center is deployed. The system is designed for unattended operation. This project is not expected to cause long-term impacts to the social, economic, or environmental resources at the base.

The Proposed Action would not result in, or contribute to, significant negative cumulative impacts to the resources of the region. When added together, the three construction and demolition projects on Grand Forks AFB do not cause and long-term environmental or socioeconomic impacts within the ROI.

4.16 Unavoidable Adverse Impacts

Unavoidable adverse impacts would not occur if the Proposed Action is implemented. The Proposed Action would result in the removal of wetlands within the MSA. This loss would be mitigated by creating wetlands elsewhere, or purchasing credits in a mitigation bank.

4.17 Relationship between Short-term Uses and Enhancement of Long-term Productivity

Short-term effects would be those associated with the demolition of the buildings within the MSA. Implementation of the Proposed Action would not diminish long-term productivity of the environment for short-term uses. The long-term enhancement of productivity would be those effects associated with the removal of unused and degenerating buildings and restoration to a natural area. The pavements and other impermeable surfaces would be removed and the area would be graded and revegetated. The Proposed Actions would be limited to the interior of the MSA. No loss of long-term productivity is expected to occur.

4.18 Irreversible and Irretrievable Commitment of Resources

An irreversible effect could result from the use of resources that cannot be replaced within a reasonable time. An irretrievable effect could result from loss of resources that cannot be restored as a result of the Proposed Action. The use of energy, labor, and fuel for operation of demolition equipment would represent an irretrievable commitment of resources. Financial resources would also be committed to the demolition project.

SECTION 5

List of Preparers

Name	Education	Experience	Role
Laura Haught	B.S., Biology	10 years	EA Task Manager; Lead Author
Corey Wilcox	B.S., Biology	7 years	Wetland Resources
Lindsey Carr	B. S., Wildlife Science	8 years	NEPA Preparer
Christine Roberts	M.C.P., Architecture and Urban Planning	14 years	NEPA Senior Reviewer

SECTION 6

List of Agencies and Persons Consulted and/or Provided Copies

The following Grand Forks AFB personnel were consulted during the preparation of this Environmental Assessment:

- Diane Strom, Environmental Protection Specialist, NEPA/EIAP Program, 319 CES/CEV
- Kristen Rundquist, Air Programs/Natural Resources Manager, 319 CES/CEV
- Christopher Klaus, Storm Water, 319 CES/CEV
- Heidi Nelson, Community Planner, 319 CES/CECP
- Gary Williamson, Planner, 319 CES/CECP
- Stephen Braun, Tanks and TSCA Manager, 319 CES/CEV
- Sergeant Muma, Safety

The following agencies/persons were provided copies of this EA for review and comment:

- Bill Bicknell, Biologist
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926
- Dr. Terry Dwelle, State Health Officer
North Dakota Department of Health
600 East Boulevard Avenue, Department 301
Bismarck, North Dakota 58505-0200
- Dave Glatt, Section Chief
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P.O. Box 5520
Bismarck, North Dakota 58506-5520
- Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, North Dakota 58505-5095
- Merlen E. Paaverud
State Historic Preservation Officer
State Historical Society of North Dakota
North Dakota Heritage Center
612 East Boulevard Avenue
Bismarck, North Dakota 58505-0830

The public is offered a 30-day period to comment on this EA. A public notice was published in the *Grand Forks AFB Leader* and *Grand Forks Herald* on May 31, 2008, and the EA was available for public review at the Grand Forks AFB Library and at the Grand Forks Public Library. A copy of the proof of publication is included in Appendix C.

SECTION 7

Works Cited

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Appendix A
Air Force Form 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS: 2008-011

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


SECTION I - PROPONENT INFORMATION

1. TO (Environmental Planning Function) 319 CES/CEVA	2. FROM (Proponent organization and functional address symbol) 319 CES/CD	2a. TELEPHONE NO. 701-747-4761
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3. TITLE OF PROPOSED ACTION
Demolition of Buildings in Munition Storage Area (MSA) (JFSD200311A, JFSD200312, JFSD200313)

4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)
All former missile facilities are vacated and cannot be reused to serve another function due to the Quantity Distance Arc for nuclear and conventional munitions. The MSA area will need to be demolished to prepare for new base development. see reverse

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)
Demolish and remove 35 buildings in MSA. Retain one building (specific building number to be determined) for base Safety mission needs. Site restoration and mitigation for wetland destruction to be accomplished. see reverse

6. PROPONENT APPROVAL (Name and Grade) MARY C. GILTNER, YF-03 Deputy Base Civil Engineer	6a. SIGNATURE 	6b. DATE 1-10-08
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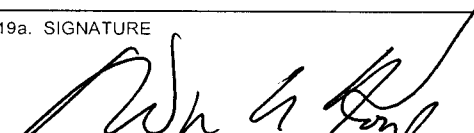
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)

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

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

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

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

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) WAYNE A. KOOP, R.E.M., YF-02 Environmental Management Flight Chief	19a. SIGNATURE 	19b. DATE 10 Jan 08
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- 4.0 Purpose and Need for Action, RCS 2008-011, Demolition of Bldg in Munition Storage Area (MSA)
- 4.1 Purpose of the Action (mission objectives, who proposes to do what, where, when): Comprehensive Demolition of Buildings 710, 711, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750 (Phase 1 -JFSD200311A); 702, 703, 704, 705, 706, 707, 708, 709, 715, 718, 722, 731, 733, 761 (Phase 2 -JFSD200312); 713, 714, 720, 721, 728, 730, 732 (Phase 3 -JFSD200313). This project will include demolition, removal of helicopter denial poles, removal of debris, the safe extraction of high risk asbestos, and the capping of all utility lines for safety and conservation. Retain one building (specific building number to be determined) for base Safety mission needs. Demo of unused MSA facilities approved at 5 Jun 06 Facility Board meeting. Demo of Tower 728 approved at 20 Nov 07 Facility Board meeting. Mitigate for loss of jurisdictional wetlands within area.
- 4.2 Need for the Action (why this action is desired or required, why here, why now): Grand Forks AFB no longer has a missile mission nor a bomber mission. All former munition facilities are vacated and need upgrade to serve another function. To improve the base ability to adapt to Air Force versatility, the MSA area will need to be demolished to prepare for new base developments. Since the buildings were built from 1959-1988, there are a few buildings that will require the removal of asbestos. Since the buildings have been unheated the past eight years, there are several buildings with mold. Since the buildings were specifically built to maintain missiles, the buildings cannot be easily converted to support the base other missions. Grand Forks AFB is located in area that is limited to basic needs to complete the Air Refueling Mission and the use of space must be done efficiently. The MSA buildings are vacant and funds are being spent to maintain them. These funds can be utilized in a more effective manner on existing and functioning facilities.
- 4.3 Objectives for the Action (what goal do you wish to accomplish): Remove excess facilities and improve aesthetics.
- 4.4 Related EISs/EAs and other documents (similar projects in the past): EAs for RCS #06-038 Demo of Bldg 452 Saber Bldg; 03-082 Demo of Heat Plant; 02-060 Demo of Penn Circle Housing; 02-036 Demo of Bldg 800 Entry Control Point; 01-064 Demo of SAGE Bldg 306; 00-075 Demo of TLF 249; 00-035 Demo Utility Bldg 524; 99-131 Demo Guard Tower 829 and 838; 99-130 Demo Helicopter Ops Bldg 519; 99-129 Demo Audio Visual Bldg 533; 99-128 Demo Hydrant Pump House 612; 99-127 Demo ICBM/TAC C&E Bldg 548; 99-126 Demo Airman's Attic 311; 99-008 Demo Pump Station 935; CATEX actions for 05-230 Demo Obstacle Course; 04-244 Demo Bldg 407; 02-048 Demo High Temp Hot Water Lines; 02-037 Demo of LMR; 01-145 Demo MFH Ph 1; 01-142 Demo MFH; 99-055 Demo MFH.
- 4.5 Decision that must be made: Demolish MSA facilities. Retain one facility for base Safety mission need.
- 4.6 Applicable Regulatory Requirements and Required Coordination-- required permits, licenses, entitlements: Applicable regulatory requirements and required coordination before and during construction include a Work Clearance Request to CES Operations; Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, and Erosion and Sediment Control Plan, and Waste Disposal Plan to the CEV Compliance and Pollution Prevention Manager; and copies of all plans to the Contracting Officer. Notification of Demo to ND State Historical Society and ND Dept of Health. The base must consult with the ND Historical Society on the proposed demolition of six Cold War Era facilities: 703, 704, 705, 706, 707, and 714.
- 5.0 Description of Proposed Action and Alternatives
- 5.1 Description of the proposed action (in brief, introduction): Remove MSA facilities by contract.
- 5.2 Selection criteria for Alternatives
- 5.2.1 Minimum mission requirements: effectiveness, timeliness, cost effective, legality, safety, efficiency, force protection.
- 5.2.2 Minimum environmental standards : noise, air, water, safety, HW, vegetation, cultural, geology, soils, socioeconomic.
- 5.3 Alternatives Considered but Eliminated from Detailed Study: None considered.
- 5.4 Description of proposed alternatives
- 5.4.1 No-action alternative: If no action is taken, the buildings and the area will remain vacant. Funds will be drawn away from other projects to maintain these buildings. Due to the asbestos and mold contained in these buildings and the age of the buildings, potential safety hazards may develop into serious problems.
- 5.4.2 Proposed Action: Demolish the 35 buildings within the MSA in a three-phase process. The action proposed includes MSA building demolition, excavation, removal of concrete slabs and foundations, recycling the metal, backfill, grading, removal of debris, disposal of all debris off site, backfill, grading, seeding and final site restoration. Retain one building (specific building number to be determined) for base Safety mission needs. Contractor will provide details of Demo and Asbestos State Notification; and provide copy of State notice to CES. Mitigation required for destruction of jurisdictional wetlands within MSA area. Consult with ND Historical Society on demo of six Cold War Era facilities: 703, 704, 705, 706, 707, and 714.
- 5.4.3 Another Reasonable Action Alternative: Demolish the 35 buildings at one time as one project. Retain one building (specific building number to be determined) for base Safety mission needs.
- 5.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts: 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.
- 5.6 Recommendation of preferred alternative: Demolish and remove MSA buildings by three-phase project and contract. Retain one building (specific building number to be determined) for base Safety mission needs.

Appendix B
Regulator Correspondence

ROUTING AND TRANSMITTAL SLIP

Date 16 OCT 07

TO: (Name, office symbol, room number, building, Agency/Post)

	Initials	Date
1. 319 CES/CEVC -- McCullough	DM	10/16/07
2. 319 CES/CEV -- Koop	WKO	230 Oct 07
3. 319 CES/CD -- Giltner		
4. 319 CES/CC -- Lt Col McClure	MC6	24 Oct 07
5.		
6.		

CEV - please get AT program office coord before you send because of MSA. (7-4630) Telecon Coord w mr Overholt, Anti-terrorism office 26 Oct 07, 1020. WKO

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
1,2,3	Coordination	Justify

REMARKS

Please review and sign the letter to USACE requesting a jurisdictional determination on the recently assessed wetlands in the MSA complex. Information provided by USACE will be used in the EA of the Demo of the MSA project.

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

Room No. - Bldg. 410
Phone No. 747-4774

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



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

OCT 24 2007

319 CES/CD
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

Daniel E. Cimarosti, North Dakota Program Manager
North Dakota Regulatory Office
US Army Corps of Engineers
1513 South 12th Street
Bismarck, ND 58504

Dear Mr. Cimarosti:

Grand Forks Air Force Base has completed a wetlands assessment during 2007 of our munitions storage area. The field assessment found 20 wetlands connected throughout by culverts, all were characterized as palustrine emergent, and totaled approximately 0.4 acres (see maps). One large culvert is present on the north end of the complex connecting the system to a jurisdictional wetland/ditch leading to Kelly's Slough NWR. Wetlands were identified primarily using vegetation as boundary markers. Please accept the submitted information under Section 404 of the Clean Water Act, and make a jurisdictional determination as required.

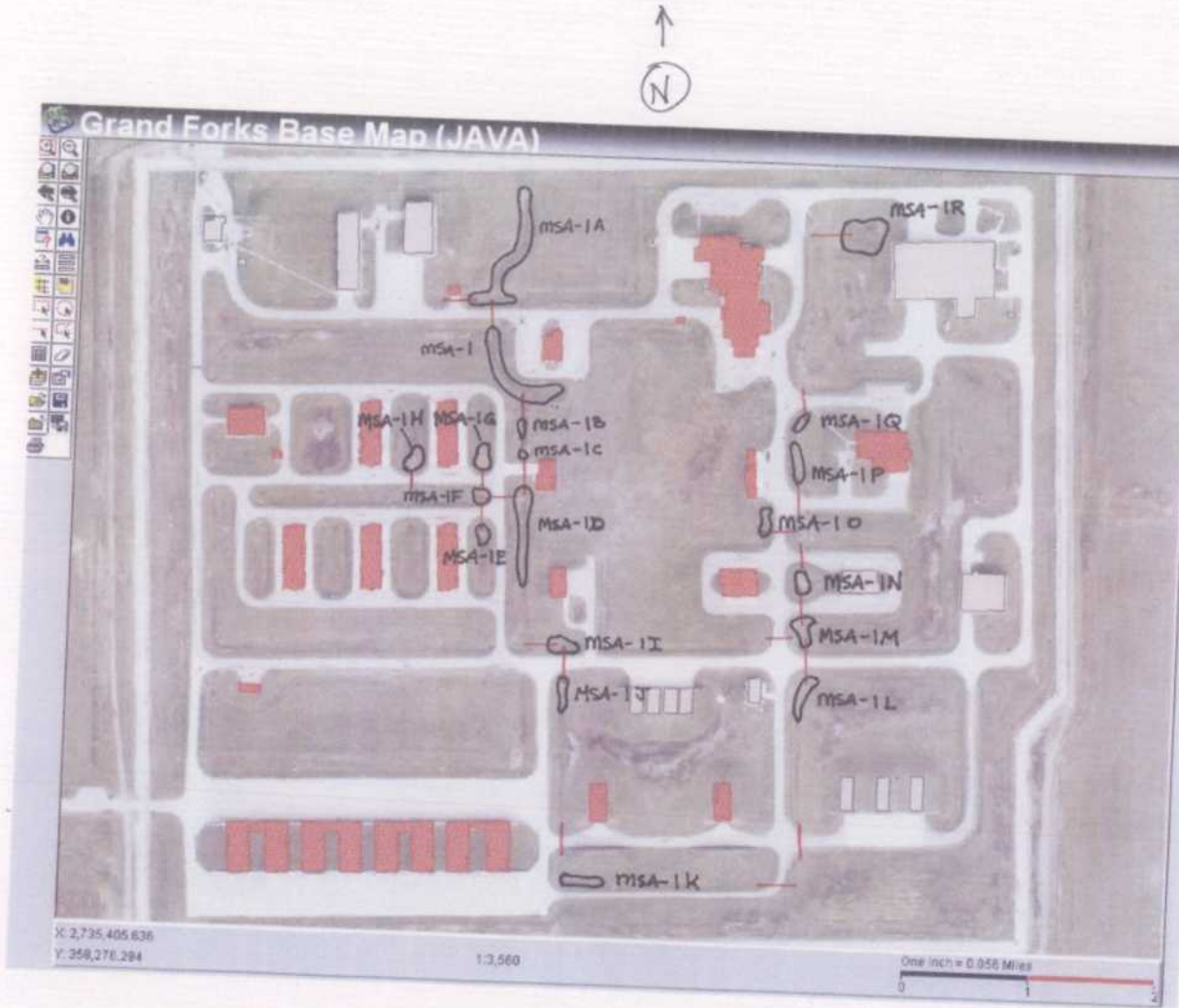
Please return correspondence with comments as needed or a letter of jurisdictional determination regarding these wetlands. Should you have any questions, please phone or email, Ms Kristen Rundquist, at 701-747-4774 or kristen.rundquist@grandforks.af.mil.

Sincerely,


MARY C. GILTNER
Deputy Base Civil Engineer

Enclosures:
Wetland Maps
Photos





- Culvert Locations shown in red.
- Wetland review completed 8/25/07
- All wetlands Palustrine Emergent Marsh.
- Wetlands all show hydrological connection to each other via culverts.
- Wetland MSA-1A is connected to drainage ditch leading to Kelly's Slough NWR via culvert.



MSA-1C, View North, & Associated Culvert



MSA-1h, view north

CENWO-OD-RND (1145b)

November 1, 2007

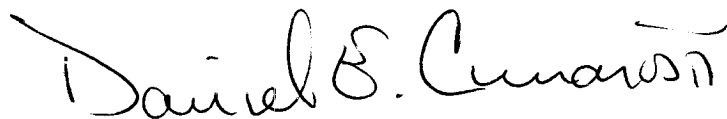
MEMORANDUM FOR:

Grand Forks Air Force Base
ATTN: Mary C. Giltner, GM-13, DAFC
Deputy Base Civil Engineer
319 CES/CD
525 Tuskegee Airmen Blvd.
Grand Forks AFB, North Dakota 58205-6434

MCG
SN 07-07
CEV

SUBJECT: Jurisdictional Wetland Determination for Munitions Storage Area, Grand Forks Air Force Base.

1. We have reviewed the information you provided this office for Department of the Army (DA) request for wetland jurisdictional determination (JD) regarding the wetlands located on the Grand Forks Air Force Base, specifically in an area known as the Munitions Storage Area. These wetlands are located in Section 36, Township 152 North, Range 53 West, Grand Forks County, North Dakota.
2. Based on the information you provided to this office and further review of wetland data at the North Dakota Regulatory Office, it has been determined the above mentioned project area does contain Department of the Army, U.S. Army Corps of Engineers jurisdictional wetland areas. If plans include impacts to any of these wetland areas, in accordance with 33 C.F.R. 320-330, a Department of the Army permit would be required prior to commencing construction activities associated with the proposed project that would result in impacts to these waters of the United States. If however, construction activities associated with a project are designed to avoid impacts to waters of the United States, a Department of Army permit would not be required.
3. An approved jurisdictional determination has been completed for your project. The JD will be made available to you upon request, or it may be viewed at our website at <https://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm>. The JD will be available on the website within 30 days. If you are not in agreement with the JD, you may request an administrative appeal under Corps of Engineers regulations found at 33 CFR 331. The Request for appeal must be received within 60 days from the date of this correspondence. If you would like more information on the jurisdictional appeal process, contact this office. **it is not necessary to submit a Request for Appeal if you do not object to the JD.** The jd will be valid for a period of 5 years.
4. Should you have any questions regarding this determination, please contact Ms. Patsy Crooke of this office by letter or telephone (701) 255-0015 and reference project number NWO-2007-3462-BIS.



Daniel E. Cimarosti
State Program Manager
North Dakota

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: _____ County/parish/borough: _____ City: _____
Center coordinates of site (lat/long in degree decimal format): Lat. _____ N; Long. _____ W
Universal Transverse Mercator: _____

Name of nearest waterbody: _____

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: _____

Name of watershed or Hydrologic Unit Code (HUC): _____

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date: _____
 Field Determination. Date(s): _____

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: _____

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: _____ linear feet: _____ width (ft) and/or _____ acres.
Wetlands: _____ acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): _____

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: _____

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **square miles**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **15-20** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Relatively straight

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Seasonal flow

Estimate average number of flow events in review area/year: 2-5

Describe flow regime:

Other information on duration and volume:

Surface flow is: Confined. Characteristics:

Subsurface flow: Pick List. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

(iv) **Biological Characteristics. Channel supports (check all that apply):**

Riparian corridor. Characteristics (type, average width):
 Wetland fringe. Characteristics:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: .

Surface flow is: **Overland sheetflow**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **25-30** river miles from TNW.

Project waters are **25-30** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

Riparian buffer. Characteristics (type, average width): .

Vegetation type/percent cover. Explain: .

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **15-20**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain: .
 Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

John Hoeven
Governor of North Dakota

February 14, 2008

North Dakota
State Historical Board

Mary C. Giltner
Deputy Base Civil Engineer
319 CES/CD
525 Tuskegee Airmen Bldg.
Grand Forks AFB ND 58205-6434

MLG 2F2608

*CEV [Signature]
Kristen
Dinne
Feb*

Albert I. Berger
Grand Forks - President

Chester E. Nelson, Jr.
Bismarck - Vice President

Gereld Gertholz
Valley City - Secretary

A. Ruric Todd III
Jamestown

Diane K. Larson
Bismarck

Marvin L. Kaiser
Williston

Richard Kloubec
Fargo

Sara Otte Coleman
Director
Tourism Division

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
Director
Parks and Recreation
Department

Francis Ziegler
Director
Department of Transportation

Merlan E. Paaverud, Jr.
Director

ND SHPO 97-0527BT: Demolition of 35 Buildings in the munitions storage area [T152N R53W Section 36] Grand Forks Air Force Base, North Dakota

Dear Ms. Giltner;

We reviewed ND SHPO 97-0527BT: Demolition of 35 Buildings in the munitions storage area [T152N R53W Section 36] Grand Forks Air Force Base, North Dakota, 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 correspondence. Six buildings, 703, 704, 705, 706, 707 and 714 were listed as potentially eligible for the National Register of Historic Places, and addressed in a signed Programmatic Agreement among Headquarters United States Air Force, State Historical Society of North Dakota, Headquarters Air Force Space Command, Headquarters Air Mobility Command, Grand Forks Air Force Base and the Advisory Council on Historic Preservation for the Deactivation of 321st Missile Group. The remaining buildings are considered not eligible for the National Register of Historic Places. We concur with your determination of "No Historic Places Affected," for this project provided it is of the nature specified and is limited to in the mapped location provided in your correspondence.

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

Sincerely,

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

Accredited by the
American Association
of Museums



CH2MHILL

CH2M HILL
15010 Conference Center Drive
Suite 200
Chantilly, VA 20151
Tel 703.376.5000
Fax 773.695.1340

March 31, 2008

Mr. Jeff Towner
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926

RE: Demolition of 35 Buildings within the Munitions Storage Area
Description of Proposed Action and Alternatives - Grand Forks Air Force Base, ND

Dear Mr. Towner:

On behalf of the Department of Defense and Grand Forks Air Force Base, CH2M HILL is preparing an Environmental Assessment for the proposed demolition of 35 vacant buildings within the Munitions Storage Area at Grand Forks Air Force Base, North Dakota. A detailed Description of Proposed Action and Alternatives (DOPAA) is included as Attachment 1.

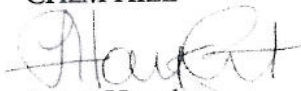
The environmental impact analysis process for the proposal is being conducted in accordance with the Council on Environmental Quality guidelines pursuant to the requirements of the *National Environmental Policy Act* of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your participation by reviewing the attached DOPAA and solicit your comments concerning the proposal and any potential environmental consequences. Please provide written comments or information regarding the action at your earliest convenience but no later than 30 days from receipt of this letter.

A listing of the agencies that were sent this information is included as Attachment 2. If there are any additional agencies that you feel should review and comment on this proposal, please include them in your distribution of this letter and the attached materials.

If you need any additional information, or have any questions, please feel free to contact me at (703) 376-5165.

Sincerely,

CH2M HILL


Laura Haught
Task Lead

Cc: Diane Strom, Grand Forks AFB


Enclosures:

- 1 - Description of Proposed Action and Alternatives
- 2 - Distribution List

U.S. FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
ND FIELD OFFICE

Project as described will have no significant impact on fish and wildlife resources. No endangered or threatened species are known to occupy the project area. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT PLANS FOR REVIEW.

4-10-08
Date


Jeffrey K. Towner
Field Supervisor



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

April 7, 2008

North Dakota Regulatory Office

NWO-2007-3462-BIS
Crooke/255-0015

Ms. Laura Haught
CH2MHill
15010 Conference Center Drive
Suite 200
Chantilly, VA 20151

Dear Ms. Haught:

We have reviewed your request for comments regarding the Environmental Assessment for the proposed demolition of 35 vacant buildings within the Munitions Storage Area at the Grand Forks Air Force Base, North Dakota.

An approved jurisdictional determination was completed on November 1, 2007 for the 19 basins located in this area, specifically in Section 36, Township 152 North, Range 53 West, Grand Forks County, North Dakota. These wetlands were determined to be jurisdictional and that determination can be viewed at our website at <https://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm>.

The EA indicated that "Due to the proximity of some of the wetlands to the MSA buildings, demolition and grading activities are expected to impact wetlands within the MSA." These impacts to wetlands are expected to be long-term adverse impacts. Based on this information, it will be necessary to submit an application for Department of the Army (DA) authorization (copy enclosed) under Section 404 of the Clean Water Act, in accordance with 33 CFR 320-330, prior to commencing the demolition activities that would impact these waters of the U.S. If however, construction activities associated with the project are designed to avoid impacts to waters of the U.S., a DA permit would not be required.

If you have any questions, please contact Ms. Patsy Crooke of this office by letter, telephone (701-255-0015), or email Patsy.J.Crooke@usace.army.mil and reference project number NWO-2007-3462-BIS.

Sincerely,

Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure

**Instructions for Preparing a
Department of the Army Permit Application**

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name of the responsible party or parties. If the responsible party is an agency, company, corporation or other organization, indicate the responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked **Block 5**.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he/she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project (i.e., Landmark Plaza, Burned Hills Subdivision or Edsall Commercial Center).

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter here.

Block 15. Location of Proposed Project. Enter the county and state where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Section, Township and Range of the site and/or the latitude and longitude. You may also provide description of the proposed project location, such as lot numbers, tract numbers or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile down from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site.

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wingwalls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles or float supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reason(s) for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked **Block 22**.

Block 23. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square wet), if tile work was done under an existing Corps permit, identify the authorization if possible.

Block 24. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county of counties where the project is to be developed.

Block 25. Information about Approvals or Denials by Other Agencies. You may need the approval of other Federal, state or local agencies for your project. identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 26. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent) . This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a **Vicinity Map**, a **Plan View** or a **Typical Cross-Section Map**. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8 1/2x11 inch plain white paper (tracing paper or film may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view or cross-section). **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate and contain all necessary information.**

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
(33 CFR 325)

OMB APPROVAL NO. 0710-0003
Expires December 31, 2004

The Public burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research and Sanctuaries Act, 33 USC 1413, Section 103. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO. <i>NWD-2007-3462-BTS</i>	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
--	----------------------	------------------	-------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE <i>(an agent is not required)</i>
6. APPLICANT'S ADDRESS	7. AGENT'S ADDRESS
7. APPLICANT'S PHONE NOS. W/AREA CODE	10. AGENT'S PHONE NOS. W/AREA CODE
a. Residence b. Business	a. Residence b. Business

11. STATEMENT OF AUTHORIZATION

I hereby authorize _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE <i>(see instructions)</i>	
13. NAME OF WATERBODY, IF KNOWN <i>(if applicable)</i>	14. PROJECT STREET ADDRESS <i>(if applicable)</i>
15. LOCATION OF PROJECT _____ COUNTY STATE	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN <i>(see instructions)</i>	
17. DIRECTIONS TO THE SITE	



**STATE
HISTORICAL
SOCIETY**
OF NORTH DAKOTA

John Hoeven
Governor of North Dakota

April 7, 2008

North Dakota
State Historical Board

Ms. Laura Haught
Task Lead
CH2M Hill
15010 Conference Center Drive
Suite 200
Chantilly, VA 20151

Albert I. Berger
Grand Forks - President

Chester E. Nelson, Jr.
Bismarck - Vice President

Gereld Gerntholz
Valley City - Secretary

A. Ruric Todd III
Jamestown

Diane K. Larson
Bismarck

Marvin L. Kaiser
Williston

Richard Kloubec
Fargo

Sara Otte Coleman
*Director
Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
*Director
Parks and Recreation
Department*

Francis Ziegler
*Director
Department of Transportation*

Merlan E. Paaverud, Jr.
Director

ND SHPO 97-0527BT: Demolition of 35 Buildings in the munitions storage area [T152N R53W Section 36] Grand Forks Air Force Base, North Dakota

Dear Ms. Haught;

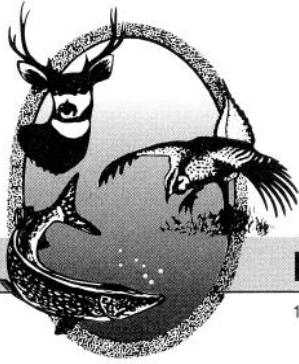
We reviewed ND SHPO 97-0527BT: Demolition of 35 Buildings in the munitions storage area [T152N R53W Section 36] Grand Forks Air Force Base, North Dakota, and concur with a "No Historic Properties Affected" determination, provided the project is of the nature specified and takes place in the legal description outlined and mapped in the correspondence. Six buildings, 703, 704, 705, 706, 707 and 714 were listed as potentially eligible for the National Register of Historic Places, and addressed in a signed Programmatic Agreement among Headquarters United States Air Force, State Historical Society of North Dakota, Headquarters Air Force Space Command, Headquarters Air Mobility Command, Grand Forks Air Force Base and the Advisory Council on Historic Preservation for the Deactivation of 321st Missile Group. The remaining buildings are considered not eligible for the National Register of Historic Places. We concur with your determination of "No Historic Places Affected," for this project provided it is of the nature specified and is limited to in the mapped location provided in your correspondence.

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

Sincerely,

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

Accredited by the
American Association
of Museums



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

April 24, 2008

Laura Haught
Task Lead
CH2M HILL
15010 Conference Center Drive
Suite 200
Chantilly, VA 20151

Dear Ms. Haught:

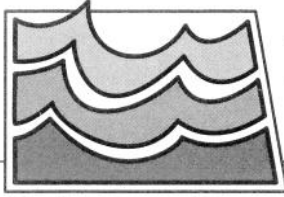
RE: Demolition of 35 Buildings within the Munitions Storage Area
Grand Forks Air Force Base, North Dakota

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, provided any unavoidable wetland impacts are mitigated in kind on an acre-for-acre basis.

Sincerely,

(for) Michael G. McKenna
Chief
Conservation & Communication Division

js



North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

April 28, 2008

Laura Haught
CH2M Hill
15010 Conference Center Drive
STE 200
Chantilly, VA 20151

Dear Ms. Haught:

This is in response to your request for review of environmental impacts associated with the Demolition of 35 Buildings within the Munitions Storage Area, Grand Forks Air Force Base, North Dakota.

The proposed project have been reviewed by State Water Commission staff and the following comments are provided:

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:ds/1570



June 2, 2008

Ms. Laura Haught, Task Lead
CH2M HILL
15010 Conference Center Dr., Suite 200
Chantilly, VA 20151

Re: Draft Environmental Assessment for Proposed Demolition of 35 Buildings Within the
Munitions Storage Area at Grand Forks Air Force Base, Grand Forks County, ND

Dear Ms. Haught:

This department has reviewed the Draft Environmental Assessment concerning the above-referenced project submitted under date of May 28, 2008.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, our comments remain the same as in our May 27, 2008 letter to you (copy attached).

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

Attach.

cc: Diane Strom, Grand Forks Air Force Base



May 27, 2008

Ms. Laura Haught, Task Lead
CH2M HILL
15010 Conference Center Dr., Suite 200
Chantilly, VA 20151

Re: Proposed Demolition of 35 Buildings Within the Munitions Storage Area
at Grand Forks Air Force Base, Grand Forks County, North Dakota

Dear Ms. Haught:

This department has reviewed the information concerning the above-referenced project submitted under date of March 31, 2008, with respect to possible environmental impacts.

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

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. All necessary measures must be taken to minimize the release of lead into the environment due to the disturbance of lead-based paint. Any waste containing lead must be disposed of properly.
3. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
4. 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



Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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



May 27, 2008

Ms. Laura Haught, Task Lead
CH2M HILL
15010 Conference Center Dr., Suite 200
Chantilly, VA 20151

Re: Proposed Demolition of 35 Buildings Within the Munitions Storage Area
at Grand Forks Air Force Base, Grand Forks County, North Dakota

Dear Ms. Haught:

This department has reviewed the information concerning the above-referenced project submitted under date of March 31, 2008, with respect to possible environmental impacts.

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

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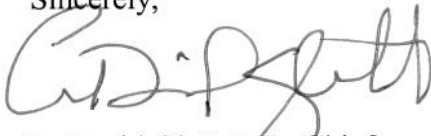
construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

5. All necessary measures must be taken to minimize the disturbance of any asbestos-containing material and to prevent any asbestos fiber release episodes. Any facility that is to be renovated or demolished must be inspected for asbestos. Notification of the Department's Division of Air Quality (701-328-5188) is required before any demolition. 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.
6. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.
7. 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

Attach.

cc: Diane Strom, Grand Forks Air Force Base



Construction and Environmental Disturbance Requirements

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

Soils

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

June 16, 2008

North Dakota Regulatory Office

NWO-2007-3462-BIS

Ms. Laura Haught
CH2MHill
15010 Conference Center Drive
Suite 200
Chantilly, VA 20151


Dear Ms. Haught:

We have reviewed your request for comments regarding the Environmental Assessment for the proposed demolition of 35 vacant buildings within the Munitions Storage Area at the Grand Forks Air Force Base, North Dakota.

We would have nothing further to add for comments and would refer you to the letter sent April 7, 2008. Please be aware that if your project would require authorization as an Individual Permit, only the least damaging practicable alternative can be permitted.

If you have any questions, please contact Ms. Patsy Crooke of this office by letter, telephone (701-255-0015), or email Patsy.J.Crooke@usace.army.mil and reference project number NWO-2007-3462-BIS.

Sincerely,



Daniel E. Cimarosti
Regulatory Program Manager
North Dakota



CH2MHILL

CH2M HILL

15010 Conference Center Drive

Suite 200

Chantilly, VA 20151

Tel 703.376.5000

Fax 773.695.1340

May 28, 2008

Mr. Dean Hildebrand, Commissioner
North Dakota Game and Fish
100 North Bismarck Expressway
Bismarck, North Dakota 58505-5095

Dear Mr. Hildebrand:

RE: Demolition of 35 Buildings within the Munitions Storage Area
Draft Environmental Assessment - Grand Forks Air Force Base, ND

On behalf of the Department of Defense and Grand Forks Air Force Base, CH2M HILL has prepared an Environmental Assessment (EA) for the proposed demolition of 35 vacant buildings within the Munitions Storage Area at Grand Forks Air Force Base, North Dakota. The draft EA is included as Attachment 1.

The environmental impact analysis process for the proposal is being conducted in accordance with the Council on Environmental Quality guidelines pursuant to the requirements of the *National Environmental Policy Act* of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your participation by reviewing the attached EA and solicit your comments concerning the proposal and any potential environmental consequences. Please provide written comments or information regarding the action at your earliest convenience but no later than 30 days from receipt of this letter.

A listing of the agencies that were sent this information is included as Attachment 2. If there are any additional agencies that you feel should review and comment on this proposal, please include them in your distribution of this letter and the attached materials.

If you need any additional information, or have any questions, please feel free to contact me at (703) 376-5165.

Sincerely,

CH2M HILL

Laura Haught
Task Lead

Cc: Diane Strom, Grand Forks AFB

Enclosures:

- 1 - Draft Environmental Assessment
- 2 - Distribution List



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

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

(for) Michael G. McKenna
Chief, Conservation & Communication Division
Date: 6/20/08



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



JUL 14 2008

Ms. Laura Haught
CH2MHill
15010 Conference Center Drive
Suite 200
Chantilly, Virginia 20151

Re: Demolition of 35 Buildings Within the
Munitions Storage Area on Grand Force Air
Force Base, ND

Dear: Ms. Haught:

This is in regard to your draft Environmental Assessment (EA) sent May 28, 2008, for the proposed demolition of 35 vacant buildings within the Munitions Storage Area at Grand Forks Air Force Base, North Dakota. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).

High Value Habitat Avoidance

The draft EA identifies approximately 1.3 acres of jurisdictional wetlands to be filled. As we believe the Corps of Engineers (Corps) has informed you, the Corps is likely to require an individual permit for this work. I suggest you contact Mr. Daniel Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine the Corps' permit requirements.

Wetlands are very important for fish and wildlife resources, as well as for water quality for human uses. Section 404 of the Clean Water Act requires that impacts to wetlands be avoided, to the extent possible. If wetland impacts cannot be completely avoided, then impacts must be minimized to the greatest extent possible. After impact avoidance and minimization have been fully considered, any remaining impacts should be fully mitigated. Since this project is not water dependant, the Fish and Wildlife Service (Service) suggests that impacts to wetlands be avoided. The draft EA notes that the wetlands would be mitigated through constructing new wetlands or purchasing wetland credits. If the Air Force chooses to pursue an individual permit for filling the wetlands, the Service requests a much more detailed plan describing where the proposed mitigation wetlands would be, what actions would be taken to create or restore them, a monitoring time frame to ensure that they are functionally equivalent to the filled wetlands, and actions that would be taken if the mitigation wetlands are not performing as expected at the end

of the monitoring period. The Service is not aware of any mitigation banks in North Dakota with credits available for the Air Force to purchase. It is very difficult to create or restore wetlands successfully (Zedler and Callaway 1999), therefore, there is a need for a detailed mitigation plan after full consideration of avoidance and minimization is documented. If the Corps requires a permit, this office will provide comments in response to their public notice.

To minimize disturbance to fish and wildlife resources in the project area, the Service provides the following recommendations:

- Schedule construction for late summer or fall/early winter so as not to disrupt waterfowl or other wildlife during the breeding season (February 1 to July 15). If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds, eggs, or active nests, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the absence or presence of nesting migratory birds. If nesting migratory birds are found, we request you contact this office, suspend construction, or take other measures, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that field surveys for nesting birds, along with information regarding the qualification of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site, be thoroughly documented and that such documentation be shared with the Service and maintained on file by the project.
- Make no stream channel alterations or changes in drainage patterns.
- Locate construction to avoid placement of fill in wetlands.
- Install and maintain appropriate erosion control measures to reduce sediment transport to adjacent wetlands and stream channels.
- Reseed disturbed areas with a mixture of native grass and forbe species

Threatened and Endangered Species


The Service concurs with your determination of “no effect” for federally threatened and endangered species.

Service Property Interests

The Service has no property interests in the proposed project areas.

We appreciate the opportunity to comment and look forward to working with you in the future. If you have questions regarding our comments, please contact Carol Aron of my staff at (701) 250-4481, or at the letterhead address above.

Sincerely,

A handwritten signature in cursive script that reads "Jeffrey K. Towner".

Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

cc: U.S. Army Corps of Engineers, Bismarck, ND
(Attn: Daniel Cimarosti)

Appendix C
Proof of Publication

PUBLIC NOTICE
Availability of Environmental Assessment and Draft Finding of No Significant Impact / Finding of No Practicable Alternative for Demolition of 35 Buildings within the Munitions Storage Area at Grand Forks Air Force Base, North Dakota

The 319th Air Refueling Wing has conducted an assessment of the potential environmental and socioeconomic effects associated with demolition of 35 buildings within the Munitions Storage Area at Grand Forks Air Force Base.

The purpose of the Proposed Action is to remove excess facilities and infrastructure within the MSA. The 35 buildings proposed for demolition were constructed to support bomb and missile missions, and are no longer used. The current mission at Grand Forks AFB supports KC-135 Stratotankers. This mission is scheduled to transition out over the next two years and a new mission of Unmanned Aerial Vehicles is scheduled to move on base in its place. Neither of these missions requires storage of munitions; therefore, funding to maintain and operate the 35 vacant buildings inside the MSA is drawn from other active facilities and projects that are critical to meeting mission requirements.

Based on the environmental assessment, it was determined that the demolition of these 35 buildings would result in no significant impact to the quality of the natural or human environment. Therefore, an environmental impact statement is not required and a draft finding of no significant impact (FONSI) has been prepared. In accordance with Air Force regulations, a finding of no practicable alternative (FONPA) has also been prepared for wetland impacts which are unavoidable.

The draft EA and draft FONSI/FONPA are available for review and comment for 30 days, from Saturday May 31, 2008 through Monday June 30, 2008 at the Grand Forks Public Library (2110 Library Circle, Grand Forks, ND, 58201, telephone 701-772-8116), and at the Grand Forks AFB Library (511 Holzapple Street, Grand Forks AFB, ND 58205, telephone 701-747-3046).

If you have any questions or comments please contact Public Affairs Officer, 319 ARW/PA, 375 Steen Blvd., Grand Forks AFB, ND, 58205-6434; telephone (701) 747-5017; or e-mail PA@grand-forks.af.mil.

Written comments should be sent to the above address or e-mail no later than Monday June 30, 2008 to ensure consideration. The civil engineer of Air Mobility Command will review all comments received by that date before making a decision to sign the final FONSI/FONPA.

(May 31, 2008)

AFFIDAVIT OF PUBLICATION

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

[Signature]

of said State and County being

first duly sworn, on oath says:

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

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

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 one time (s) to wit:

<u>5/31</u>	Yr. <u>08</u>	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is \$ 41.58;

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 3 day of

June A.D. 08

[Signature]

Notary Public, Grand Forks, ND

Public

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