

Final

Environmental Assessment

TENT CITY

At
Grand Forks AFB, North Dakota

15 Nov 2004

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FINDING OF NO SIGNIFICANT IMPACT FOR TENT CITY

AGENCY: Department of the Air Force

PROPOSED ACTION: Under this alternative, Grand Forks AFB would construct in Area 1 or 2 on the enclosed map, an area of 56 each 19 ft x 31 ft x 4 in deep concrete pads within a 326 x 474 ft rectangular area of 4 inch deep crushed concrete or gravel surface, 3.5 acres, surrounded by a 6 ft chain link fence with three strand barb wire, and one gate entrance. Electrical power, fiber optic communication lines, water line with a deep shutoff valve for shower tents, sanitary sewer line, and porta potties will be provided. Underground power with transformers, and power stubs to run power to each tent pad will be provided. Security lights will surround the perimeter, and will be sufficient to meet airfield height requirements criteria. The inside crushed concrete or gravel perimeter will serve as a perimeter road for Tent City. The entire location will be sited to avoid the wetland areas south of Building 517 and 516. The confidence training course southwest of Building 517 will be relocated if Area 1 is selected. The siting will not protrude into the 7:1 transitional airfield surface. Runoff and drainage will be addressed during design of the project. Excess spoil material (black dirt) from the area will be transported to an on-base material stockpile. Construction may begin in-house by Civil Engineering Squadron, and continue by contractor, as funds are provided.

ALTERNATIVES CONSIDERED: Under the no action alternative 1, no tent city will be constructed. Enemy attack exercises will continue to be conducted in off base locations without services, requiring military airlift support, which is costly and may be unavailable or limited at a desired time. Alternative Action 3 considered Area 3 on the enclosed map for the location of Tent City. However, it is a low area currently being developed for deicer contaminated snow and water storage, which may last all year. A ditch crossing would require a Section 404 USACE permit, which usually takes two months for approval. Area 4 is considered, but it contains several wetlands which cannot be avoided. An EA would require a FONPA, Finding of No Practicable Alternative, signed by AMC/CV, and Section 404 USACE permit. The area is also in planning and programming for the future site of a new Fire Station. Area 5 is considered, but ditch and wetland crossings would require Section 404 USACE permit. The area is also a high probability site for Cultural Resources and would require a full cultural resource survey accomplished for the State Historical Society.

ENVIRONMENTAL CONSEQUENCES

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

Noise - The construction of Tent City would create additional noise. The increase in noise would be negligible and only occur during construction.

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

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on stormwater, ground water and water quality. The proposed action would have no impact on wastewater. There are small wetlands in this area. Siting, design and construction should avoid impacting wetlands, as there is appropriate room to work around them. BMP's must be utilized during design and construction to decrease volume, flow rates, and maintain water quality of the sites storm water discharges. No dumping, filling, dredging, or changing of the wetland hydrologic structure is permitted without a Clean Water Act section 404 permit from the Army Corps of Engineers.

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

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

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

Land Use - The proposed operation would not have an impact on land use, since the area is designated for training. The siting will not protrude into the 7:1 transitional airfield surface.

Transportation Systems – The proposed operation would have minor adverse impact to transportation systems on base due to vehicles traveling to and from Tent City. Participants would be shuttled to Tent City from a mobility location.

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

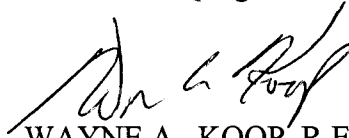
Safety and Occupational Health – The Grand Forks AFB Safety Office has indicated they have no safety concerns.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. A sterlite herbicide, or a ground tarp, may be used to keep weeds from growing through the crushed concrete or gravel bed of Tent City.

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

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, Construction of Tent City.

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



WAYNE A. KOOP, R.E.M., GM-13

Environmental Management Flight Chief

Date: 15 Nov 04

Cover Sheet

Agency: United States Air Force (USAF)

Action: The action proposes to construct a Tent City training area at Grand Forks Air Force Base (AFB), North Dakota.

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

Designation: Final Environmental Assessment (EA)

Abstract: This Final EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts of a Tent City training area, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise; Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupational Health; Environmental Management; and Environmental Justice.

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

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ACRONYMS, ABBREVIATIONS, AND TERMS

AAM	Annual Arithmetic Mean
ACM	Asbestos Containing Material
AFB	Air Force Base
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zone
AMC	Air Mobility Command
APZ	Accident Potential Zone
ARPA	Archeological Resource Protection Act
ARW	Air Refueling Wing
AST	Above Ground Storage Tank
Ave	Avenue
BASH	Bird Aircraft Strike Hazard
Blvd	Boulevard
BMP	Best Management Practice
BMX	Bike Motocross
BOD	Biochemical Oxygen Demand
CAA	Clean Air Act
CWA	Clean Water Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CES	Civil Engineering Squadron
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dB	decibel
DBa	Decibel
DNL	Day-Night Average A-Weighted Sound Level
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
F	Fahrenheit
FEMA	Federal Emergency Management Agency
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
ft	Feet

ft ³ /s	feet cubed per meter
GFAFB	Grand Forks Air Force Base
HAP	Hazardous Air Pollutants
hr	Hour
H ₂ S	Hydrogen Sulfide
IRP	Installation Restoration Program
LT	Long-Term
MBTA	Migratory Bird Treaty Act
MFH	Military Family Housing
mph	Miles Per Hour
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
µg/m ³	Micrograms Per Meter Cubed
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
ND	North Dakota
NDAAQS	North Dakota National Ambient Air Quality Standards
NDAC	North Dakota Administrative Code
NDDH	North Dakota Department of Health
NDPDES	North Dakota Pollutant Discharge Elimination System
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Act
NHPA	National Historic Preservation Act
NO _x	Nitrogen Oxides
NO ₂	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
O ₃	Ozone
OSHA	Occupational Safety and Health Act
OWS	Oil Water Separator
P2	Pollution Prevention
Pb	Lead
PCS	Petroleum-Contaminated Soil
PM ₁₀	Particulate Matter 10 Microns in Diameter
PM _{2.5}	Particulate Matter 25 Microns in Diameter

POL	Petroleum Oil Lubricant
ppm	Parts Per Million
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assessment and Quality Control
RACM	Regulated Asbestos Containing Materials
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RV	Recreational Vehicle
SAGE	Strategic Air Ground Equipment
SARA	Superfund Amendments and Reauthorization Act
SO ₂	Sulfur Dioxide
SO _x	Sulfur Dioxide
St	Street
ST	Short-Term
SWMU	Solid Waste Management Unit
tpy	Tons Per Year
TSCA	Toxic Substance Control Act
TSI	Thermal System Insulation
US	United States
USACE	United States Army Corps of Engineers
USAF	United States Air Force
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

The United States Air Force (USAF) proposes a Tent City training area on Grand Forks Air Force Base (AFB), North Dakota.

Purpose and Need: The purpose of the action is to provide a realistic, integrated, large-scale training area to enhance the installation's capability to respond, operate and recover from combatant contingency operations in the global war on terrorism on Grand Forks Air Force Base. Air Force Instruction 10-2501 requires an enemy attack exercise at a frequency not to exceed every fifteen months. A Tent City will provide a permanent location for the recurring exercise. The focus of the exercise is not to display the ability to establish utilities, but the ability to survive and operate in a military operation. The construction of Tent City will allow more time to focus on contingency operations and less resources on the establishment of the camp. The Tent City will provide a large-scale training area to enhance the installations capability to operate combatant contingency operations in a forward location. It would provide surface for control center work space tents for Wing Operations Center (WOC), Survival Operation Center (SRC), Base Defense Operations Center (BDOC), Maintenance Operations Center (MOC), Civil Engineer Control Center, Command Post (CP), Squadron Operations Center (SOC), Logistics Operations Center, Medical Control Center, Life Support Operations, Armory, Exercise Relocation, PERSCO, dining tents and billeting tents for approximately 300 personnel. Air Mobility Command Pamphlet 90-202, Command Policy Inspection Guide, provides grade sheets on tasks the installation will perform during Air Mobility Command/Inspector General Ability to Survive and Operate Operational Readiness Inspections. Related military exercise EIAP documents are RCS # 04-057 Major Accident Response Exercise (MARE) in CE Park, 04-236 Conduct MARE near Hatton, ND, 01-061 Defender Challenge Training, and 01-062 Ground Control Combat Skills Training. Related pavement and gravel EIAP documents are RCS # 03-066 Expand parking lot using gravel, and 99-056 Construct Pavements - POL Areas. Grand Forks Air Force Base must decide whether and where it will construct a Tent City on Grand Forks AFB.

No Action Alternative 1: No tent city will be constructed. Enemy attack exercises will continue to be conducted in off base locations without services, requiring military airlift support, which is costly and may be unavailable or limited at a desired time.

Proposed Action 2: In Area 1 or 2 on the enclosed map, an area of 56 each 19 ft x 31 ft x 4 in deep concrete pads within a 326 x 474 ft rectangular area of 4 inch deep crushed concrete or gravel surface, 3.5 acres, surrounded by a 6 ft chain link fence with three strand barb wire, and one gate entrance will be constructed. Electrical power, fiber optic communication lines, water line with a deep shutoff valve for shower tents, sanitary sewer line, and porta potties will be provided. Underground power with transformers, and power stubs to run power to each tent pad will be provided. Security lights will surround the perimeter, and will be sufficient to meet airfield height requirements criteria. The inside crushed concrete or gravel perimeter will serve as a perimeter road for Tent City. The entire location will be sited to avoid the wetland areas south of Building 517 and 516. The confidence training course southwest of Building 517 will be relocated if Area 1 is selected. The tent city must not protrude into the 7:1 transitional airfield

surface. It may possibly be screened. Runoff and drainage will be addressed during design of the project. Excess spoil material (black dirt) from the area will be transported to an on-base material stockpile. Construction may begin in-house by Civil Engineering Squadron, and continue by contractor, as funds are provided.

Alternative Action 3: Area 3 on the enclosed map is considered for the location of Tent City. However, it is a low area currently being developed for deicer contaminated snow and water storage, which may last all year. A ditch crossing would require a Section 404 USACE permit, which usually takes two months for approval. Area 4 is considered, but it contains several wetlands which cannot be avoided. An EA would require a FONPA, Finding of No Practicable Alternative, signed by AMC/CV, and Section 404 USACE permit. The area is also in planning and programming for the future site of a new Fire Station. Area 5 is considered, but ditch and wetland crossings would require Section 404 USACE permit. The area is also a high probability site for Cultural Resources and would require a full cultural resource survey accomplished for State Historical Society.

Impacts by Resource Area

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

Noise - The construction of Tent City would create additional noise. The increase in noise would be negligible and only occur during construction.

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

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

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

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

Land Use - The proposed operation would not have an impact on land use, since the area is designated for training.

Transportation Systems – The proposed operation would have minor adverse impact to transportation systems on base due to vehicles traveling to and from Tent City. Participants would be shuttled to Tent City from a mobility location.

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

Safety and Occupational Health – The Grand Forks AFB Safety Office has indicated they have no safety concerns.

Environmental Management – The proposed action would not impact IRP Sites. BMPs would be implemented to prevent erosion. A sterlite herbicide, or a ground tarp, may be used to keep weeds from growing through the crushed concrete or gravel bed of Tent City.

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

1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION

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

1.1 INTRODUCTION

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

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

1.2 NEED FOR THE ACTION

The purpose of the proposed action is to provide a realistic, integrated, large-scale training area to enhance the installation's capability to respond, operate and recover from combatant contingency operations in the global war on terrorism.

Air Force Instruction 10-2501 requires an enemy attack exercise not to exceed every fifteen months. A Tent City will provide a permanent location for the recurring exercise. The focus of the exercise is not to display the ability to establish utilities, but the ability to survive and operate in a military operation. The construction of Tent City will allow more time to focus on contingency operations and less resources on the establishment of the camp.

1.3 OBJECTIVES FOR THE ACTION

The Tent City will provide a large-scale training area to enhance the installations capability to operate combatant contingency operations in a forward location. It would provide dry surface for

control center work space tents for Wing Operations Center (WOC), Survival Operation Center (SRC), Base Defense Operations Center (BDOC), Maintenance Operations Center (MOC), Civil Engineer Control Center, Command Post (CP), Squadron Operations Center (SOC), Logistics Operations Center, Medical Control Center, Life Support Operations, Armory, Exercise Relocation, PERSCO, dining tents and billeting tents for approximately 300 personnel. Air Mobility Command Pamphlet 90-202, Command Policy Inspection Guide, provides grade sheets on tasks the installation will perform during Air Mobility Command/Inspector General Ability to Survive and Operate Operational Readiness Inspections.

1.4 SCOPE OF EA

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

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

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

1.5 DECISION(S) THAT MUST BE MADE

This EA evaluates the environmental consequences from implementing construction of Tent City on Grand Forks AFB. NEPA requires that environmental impacts be considered prior to final decision on a proposed project. The Environmental Management Flight Chief will determine if a Finding of No Significant Impact can be signed or if an Environmental Impact Statement (EIS) must be prepared. Preparation of an environmental analysis must be accomplished prior to a final decision regarding the proposed project and must be available to inform decision makers of potential environmental impacts of selecting the proposed action or any of the alternatives.

1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

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

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

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

- AF Environmental Impact Analysis Process (EIAP) (32 CFR 989)
- AFI 32-7020, Environmental Restoration Program
- AFI 32-7040, Air Quality Compliance
- AFI 32-7041, Water Quality Compliance
- AFI 32-7042, Solid and Hazardous Waste Compliance
- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program
- AFI 32-7064, Integrated Natural Resource Management
- Archaeological Resources Protection Act (ARPA) [16 U.S.C. Sec 470a-11, et seq., as amended]
- Clean Air Act (CAA) [42 U.S.C. Sec 7401, et seq., as amended]
- Clean Water Act (CWA) [33 U.S.C. Sec 400, et seq.]
- CWA [33 U.S.C. Sec 1251, et seq., as amended]
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) [42 U.S.C. Sec. 9601, et seq.]
- Defense Environmental Restoration Program [10 U.S.C. Sec. 2701, et seq.]
- Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 [42 U.S.C. Sec. 11001, et seq.]
- Endangered Species Act (ESA) [16 U.S.C. Sec 1531-1543, et seq.]
- Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality as Amended by EO 11991
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898, Environmental Justice

- EO 12989 Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- Hazardous Materials Transportation Act of 1975 [49 U.S.C. Sec 1761, et seq.]
- NEPA of 1969 [42 U.S.C. Sec 4321, et seq.]
- National Historic Preservation Act (NHPA) of 1966 [16 U.S.C. Sec 470, et seq., as amended]
- The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 [Public Law 101-601, 25 U.S.C. Sec. 3001-3013, et seq.]
- Noise Control Act of 1972 [42 U.S.C. Sec. 4901, et seq., Public Law 92-574]
- ND Air Pollution Control Act (Title 23) and Regulations
- ND Air Quality Standards (Title 33)
- ND Hazardous Air Pollutants Emission Standards (Title 33)
- Occupational Safety and Health Act (OSHA) of 1970 [29 U.S.C. Sec. 651, et seq.]
- Resource Conservation and Recovery Act (RCRA) of 1976 [42 U.S.C. Sec. 6901, et seq.]
- Toxic Substances Control Act (TSCA) of 1976 [15 U.S.C. Sec. 2601, et seq.]

Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit to cover base-wide industrial activities. Implementation of the proposed action or an alternative action would disturb more than one acre, thus requiring Grand Forks AFB to obtain a separate NPDES from the North Dakota Department of Health (NDDH). The permit would allow discharge of storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover.

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

Applicable regulatory requirements and required coordination include a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, and Erosion and Sediment Control Plan.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

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

This section has five parts:

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

2.2 SELECTION CRITERIA FOR ALTERNATIVES

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

A cost effective method to provide a realistic, integrated, large-scale training area to enhance the installations capability to respond, operate and recover from combatant contingency operations in the global war on terrorism at Grand Forks AFB.

Minimum mission requirements include efficiency, effectiveness, safety, sanitation, dry surface, electrical power, and fiber optic communications, to meet AFI 10-2501 requirements of an enemy attack exercise not to exceed every fifteen months.

Minimum environmental standards include OSHA, AFOSH, NFPA, AFI, CFR, EPA and North Dakota standards for noise, air, water, safety, HW, vegetation, cultural, geology, soils, and socioeconomic.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

One alternative considered was to retrofit and utilize Building 517. Cost to renovate is unknown but potentially high. Placing all major command and control operations in one location is not feasible due to the limited size of Building 517. Construction in CE Park was also considered, but not selected due to its location in a floodplain, and the extensive clearing and preparation required to make the area suitable.

2.4 DESCRIPTION OF PROPOSED ALTERNATIVES

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

2.4.1 Alternative 1 (No Action Alternative): Status Quo

No tent city will be constructed. Enemy attack exercises will continue to be conducted in off base locations without services, requiring military airlift support, which is costly and may be unavailable or limited at a specific date.

2.4.2 Alternative 2 (Proposed Action): In Area 1 or 2 on the enclosed map, an area of 56 each 19 ft x 31 ft x 4 in deep concrete pads within a 326 x 474 ft rectangular area (3.5 acres) of 4 inch deep crushed concrete or gravel surface, surrounded by a 6 ft chain link fence with three strand barb wire, and one gate entrance will be constructed. Electrical power, fiber optic communication lines, water line with a deep shutoff valve for shower tents, sanitary sewer line, and porta potties will be provided. Underground power with transformers, and power stubs to run power to each tent pad will be provided. Security lights will surround the perimeter, and will be sufficient to meet airfield height requirements criteria. The inside crushed concrete or gravel perimeter will serve as a perimeter road for Tent City. The entire location will be sited to avoid the small wetland areas south of Bldg 517 and 516. The confidence training course southwest of Building 517 will be relocated if Area 1 is selected. The tent city must not protrude into the 7:1 transitional airfield surface. It may possibly be screened. Runoff and drainage will be addressed during design of the project. Excess spoil material (black dirt) from the area will be transported to an on-base material stockpile. Construction may begin in-house by Civil Engineering Squadron, and continue by contractor, as funds are provided.

2.4.3 Alternative 3: Area 3 on the enclosed map is considered for the location of Tent City. However, it is a low area currently being developed for deicer contaminated snow or water storage, which may last all year. A ditch crossing would require a Section 404 USACE permit, which usually takes two months for approval. Area 4 is considered, but it contains several wetlands which cannot be avoided. An EA would require a FONPA, Finding of No Practicable Alternative, signed by AMC/CV, and Section 404 USACE permit. Area 5 is considered, but ditch and wetland crossings would require Section 404 USACE permit. The area is also a high probability site for Cultural Resources and would require a full cultural resource survey accomplished for the State Historical Society.

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

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB. There are several other construction and demolition projects occurring on Grand Forks AFB in the same time frame. These projects are addressed under separate NEPA documents. Several projects to gravel and pave areas have been accomplished in the past, contributing to an improved, military base environment. Related military exercise EIAP documents are RCS # 04-057 Major Accident Response Exercise (MARE) in CE Park, 04-236 Conduct MARE near Hatton, ND, 01-061 Defender Challenge Training, and 01-062 Ground Control Combat Skills Training. Related pavement and gravel EIAP documents are RCS # 03-066 Expand parking lot using gravel, and 99-056 Construct Pavements - POL Areas.

2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

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

Table 2.6.1: Summary of Environmental Impacts

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

2.6 IDENTIFICATION OF PREFERRED ALTERNATIVE

Grand Forks AFB will construct a Tent City in Area 1 or 2. Construction will include 56 each 19 x 31 ft x 4 inch deep concrete pads within a 326 x 474 feet, or 3.5 acres, rectangular area of 4 inch deep crushed concrete or gravel surface, surrounded by a 6 ft chain link fence with three

strand barb wires. Construction may begin in-house by Civil Engineering Squadron, and continue in-house, or by contractor, as funds are provided.

3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

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

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

3.2 AIR QUALITY

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

Table 3.2-1: Climate Data for Grand Forks AFB, ND

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

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

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

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

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

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

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

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

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

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

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

^dAAM – Annual Arithmetic Mean.

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

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

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

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

3.3 NOISE

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

Table 3.3-1 Typical Decibel Levels Encountered in the Environment and Industry			
Sound Level (dBA) ^a	Maximum Exposure Limits	Source of Noise	Subjective Impression
10			Threshold of hearing
20		Still recording studio; Rustling leaves	
30		Quiet bedroom	
35		Soft whisper at 5 ft ^b ; Typical library	
40		Quiet urban setting (nighttime); Normal level in home	Threshold of quiet
45		Large transformer at 200 ft	
50		Private business office; Light traffic at 100 ft; Quiet urban setting (daytime)	
55		Window air conditioner; Men's clothing department in store	Desirable limit for outdoor residential area use (EPA)
60		Conversation speech; Data processing center	
65		Busy restaurant; Automobile at 100 ft	Acceptable level for residential land use
70		Vacuum cleaner in home; Freight train at 100 ft	Threshold of moderately loud
75		Freeway at 10 ft	
80		Ringling alarm clock at 2 ft; Kitchen garbage disposal; Loud orchestral music in large room	Most residents annoyed
85		Printing press; Boiler room; Heavy truck at 50 ft	Threshold of hearing damage for prolonged exposure
90	8 hr ^c	Heavy city traffic	
95	4 hr	Freight train at 50 ft; Home lawn mower	
100	2 hr	Pile driver at 50 ft; Heavy diesel equipment at 25 ft	Threshold of very loud
105	1 hr	Banging on steel plate; Air Hammer	
110	0.5 hr	Rock music concert; Turbine condenser	
115	0.25 hr	Jet plane overhead at 500 ft	
120	< 0.25 hr	Jet plane taking off at 200 ft	Threshold of pain
135	< 0.25 hr	Civil defense siren at 100 ft	Threshold of extremely loud
^a dBA – decibals ^b ft – feet ^c hr - hours Source: US Army, 1978			

Table 3.3-2 Approximate Sound Levels (dBA) of Construction Equipment						
Equipment Type	Sound Levels (dBA) at Various Distances (ft)					
	50	100	200	400	800	1,600
Front-end Loader	84	78	72	66	60	54
Dump Truck	83	77	71	65	59	53
Truck	83	77	71	65	59	53
Tractor	84	78	72	66	58	52
Source: Thurman, 1976; US Army, 1978						

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

3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

3.4.1 Hazardous Waste, Hazardous Material, Recyclable Material

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

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

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

3.4.2 Underground and Above Ground Storage Tanks

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

Gasoline, diesel fuel, heating fuel, JP-8, and oil-water separator (OWS)-recovered oils are stored in thirty-nine (39) USTs. Twenty (20) regulated USTs include three (3) gasoline tanks, eight (8) diesel tanks, three (3) JP-8 tanks, and six (6) OWS product recovery tanks. Deferred USTs

include fourteen (14) JP-8 tanks of which nine (9) are no longer in use and are programmed for removal. Five (5) USTs exempt from regulation include one (1) heating oil tank, four (4) emergency spill containment tanks, and one (1) hydraulic oil recovery tank.

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

Runway deicing fluid (potassium acetate) is stored in two (2) 5000 gallon tanks while aircraft deicing fluid (propylene glycol) is stored in a 20,000 gallon tank (Type I) and a 4,000 gallon tank (Type IV).

3.4.3 Solid Waste Management

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

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

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

3.5 WATER RESOURCES

3.5.1 Ground Water

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

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

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

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

3.5.2 Surface Water

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

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

NDDH has designated the Turtle River to be a Class II stream, it may be intermittent, but, when flowing, the quality of the water, after treatment, meets the chemical, physical, and bacteriological requirements of the NDDH for municipal use. The designation also states that it is of sufficient quality to permit use for irrigation, for propagation of life for resident fish species, and for boating, swimming, and other water recreation.

Kelly's Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR receives surface water runoff from the east half of the base and effluent from the base sewage lagoons located east of the base. Surface water flow of the slough is northeasterly into the Turtle River Drainage from surface water channels ultimately flowing into the Red River. Floodplains are limited to an area 250 ft on either side of Turtle River (about 46 acres on base). Appendix C contains a map depicting floodplains. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency (FEMA). The North Dakota State Water Commission requires that any structure in the floodplain have its lowest floor above the identified 100-year flood level.

Surface water runoff leaves Grand Forks AFB at four primary locations related to identifiable drainage areas on base. The four sites are identified as northeast, northwest, west, and southeast

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

3.5.3 Waste Water

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

3.5.4 Water Quality

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

3.5.5 Wetlands

About 246,900 acres in the county are drained wetland Type I (wet meadow) to Type V (open freshwater). Approximately 59,500 acres of wetland Type I to V are used for wetland habitat. Wetland Types IV and V include areas of inland saline marshes and open saline water. Kellys Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR is the most important regional wetland area in the Grand Forks vicinity. EO 11990 requires zero loss of wetlands. Earlier surveys indicated Grand Forks AFB had 49 wetlands, covering 23.9 acres of wetlands, including 33 jurisdictional wetlands covering 12.2 acres. A wetland delineation conducted in 2004 indicated that the base had increased to 198 wetlands, including 164 Palustrine Emergent, 31 Palustrine Scrub-Shrub, and 3 Palustrine Forested type wetlands. Vegetation is robust at GFAFB wetlands, and they are characterized as typical prairie potholes found within the northern plains ecoregion.

Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in drainage ways leading from the wastewater treatment lagoons to Kellys Slough NWR. The majority of wetland areas occur in the northern and central portions of base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of base. Development in or near these areas must include coordination with the ND State Water Commission and the USACE. To help preserve wetlands, the North Dakota, Grand Forks County regional office of the Natural Resource Conservation Service recommends a 100-ft vegetated (grass) buffer with a perimeter filter strip.

3.6 BIOLOGICAL RESOURCES

3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Hay land, wildlife management areas, waterfowl production areas, neighboring wildlife refuges, state parks, and conservation reserve program land have created excellent grassland and wetland habitats for wildlife in Grand Forks County. Pastures, meadows, and other non-cultivated areas create a prairie-land mosaic of grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, brome grass, Kentucky bluegrass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as Juneberry, dogwood, hawthorn, buffaloberry, and snowberry also are found in the area. In wetland areas, predominant species include *Typha* sp., smartweed, wild millet, cord grass, bulrushes, sedges, and reeds. These habitats for upland wildlife and wetland wildlife attract a variety of species to the area and support many aquatic species.

Various researchers, most associated with the University of ND, have studied current native floras in the vicinity of the base. The Natural Heritage Inventory through field investigations has identified ten natural communities occurring in Grand Forks County (1994). Of these, two communities are found within base boundaries, River/Creek and Lowland Woodland. The River/Creek natural community refers to the Turtle River. This area is characterized by submergent and emergent aquatic plants, green algae, diatoms, diverse invertebrate animals such as sponges, flatworms, nematode worms, segmented worms, snails, clams, and immature and adult insects, fish, amphibians, turtles, and aquatic birds and mammals. Dominant trees in the Lowland Community include elm, cottonwood, and green ash. Dutch elm disease has killed many of the elms. European buckthorn (a highly invasive exotic species), chokecherry, and wood rose (*Rosa woodsii*) are common in the under story in this area. Wood nettle (*Laportea canadensis*), stinging nettle (*Urtica dioica*), beggars' ticks (*Bidens frondosa*), and waterleaf (*Hydrophyllum virginianum*) are typical forbes.

A prairie restoration project in the "Prairie View Nature Preserve" has been developed to restore a part of the native tallgrass prairie that once was dominant in this region. Plants thriving in this

preserve include western wheatgrass, slender wheatgrass, big bluestem, little bluestem, Indian grass, switchgrass, blue gramma, buffalo grass, and many native wildflower species.

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

3.6.2 Wildlife

Grand Forks County is agrarian in nature, however it does have many wildlife management areas, waterfowl production areas, conservation reserve program land, and recreational areas providing excellent habitat for local wildlife within the county. Kellys Slough NWR is located a couple miles northeast of Grand Forks AFB. In addition to being a wetland, it is a stopover point for thousands of migratory birds, especially shorebirds. The Prairie Chicken Wildlife Management Area is located north of Mekinock and contains 1,160 acres of habitat for deer, sharp-tailed grouse, and game birds. Wildlife can also be found at the Turtle River State Park, The Bremer Nature Trail, and the Myra Arboretum.

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

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

3.6.3 Threatened and Endangered Species

According to the Biological Survey Update 2004 of GFAFB, 21 state-listed birds and 1 federally listed bird species, 2 state-listed plant species, 1 state-listed mammal species, and 1 state-listed amphibian have been identified at GFAFB. The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle, but there are no critical or significant habitats for those species present. Several rare and state-listed species have been observed on base near Turtle River, the lagoons, and the grassland to the west of the airfield. The ESA does

require that Federal Agencies not jeopardize the existence of a threatened or endangered species nor destroy or adversely modify designated critical habitat for threatened or endangered species.

3.7 SOCIOECONOMIC RESOURCES

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

3.8 CULTURAL RESOURCES

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

3.9 LAND USE

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

The main base encompasses 5,420 acres, of which the USAF owns 4,830 acres and another 590 acres are lands containing easements, permits, and licenses. Improved grounds, consisting of all covered area (under buildings and sidewalks), land surrounding base buildings, the 9-hole golf course, recreational ball fields, and the family housing area, encompass 1,120 acres. Semi-

improved grounds, including the airfield, fence lines and ditch banks, skeet range, and riding stables account for 1,390 acres. The remaining 2,910 acres of the installation consist of unimproved grounds. These areas are comprised of woodlands, open space, and wetlands, including four lagoons (180.4 acres) used for the treatment of base wastewater. Agricultural out leased land (1,040 acres) is also classified as unimproved. Land use at the base is solely urban in nature, with residential development to the south and cropland, hayfields, and pastures to the north, west, and east of the base.

3.10 TRANSPORTATION SYSTEMS

Seven thousand vehicles per day travel ND County Road B3 from Grand Forks AFB's east gate to the US Highway 2 Interchange (Clayton, 2001). Two thousand vehicles per day use the off-ramp from US Highway 2 onto ND County Road B3 (Dunn, 2001). US Highway 2, east of the base interchange, handles 10,800 vehicles per day. (Kingsley and Kuntz, 2001). A four lane arterial road has a capacity of 6,000 vehicles per hour and a two lane, 3,000, based on the average capacity of 1,500 vehicles per hour per lane. Roadways adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows (USAF, 2001a).

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

3.11 AIRSPACE/AIRFIELD OPERATIONS

3.11.1 AIRCRAFT SAFETY

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

3.11.2 AIRSPACE COMPATIBILITY

The primary objective of airspace management is to ensure the best possible use of available airspace to meet user needs and to segregate requirements that are incompatible with existing airspace or land uses. The Federal Aviation Administration has overall responsibility for managing the nation's airspace and constantly reviews civil and military airspace needs to ensure all interests are compatibly served to the greatest extent possible. Airspace is regulated and

managed through use of flight rules, designated aeronautical maps, and air traffic control procedures and separation criteria.

3.12 SAFETY AND OCCUPATIONAL HEALTH

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

The National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA designates asbestos as HAP. OSHA provides worker protection for employees who work around or asbestos containing material (ACM). Regulated ACM (RACM) includes thermal system insulation (TSI), any surfacing material, and any friable asbestos material. Non-regulated Category I non-friable ACM includes floor tile and joint compound.

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

3.13 ENVIRONMENTAL MANAGEMENT

3.13.1 INSTALLATION RESTORATION PROGRAM

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

3.13.2 GEOLOGICAL RESOURCES

3.13.2.1 Physiography and Topography

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

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

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

3.13.2.2 Soil Type Condition

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

3.13.3 PESTICIDE MANAGEMENT

Pesticides are handled at various facilities including Environmental Controls, Golf Course Maintenance, and Grounds Maintenance. Other organizations assist in the management of pesticides and monitoring or personnel working with pesticides. Primary uses are for weed and mosquito control. Herbicides, such as picloram, nonselective glyphosate and 2,4-D are used to maintain areas on base. Military Public Health and Bioenvironmental Engineering provide information on the safe handling, storage, and use of pesticides. Military Public Health maintains records on all pesticide applicators. The Fire Department provides emergency response in the event of a spill, fire, or similar type incident.

3.14 ENVIRONMENTAL JUSTICE

Environmental justice addresses the minority and low-income characteristics of the area, in this case Grand Forks County. The county is more than 93 percent Caucasian, 2.3 percent Native American, 1.4 percent African-American, 1 percent Asian/Pacific Islander, less than 1 percent Other, and 1.6 percent “Two or more races”. In comparison, the US is 75.2 percent Caucasian, 12.3 African-American, 0.9 percent Native American or Native Alaskan, 3.6 percent Asian, 0.1 Native Hawaiian or Pacific Islander, 5.5 percent Other, and 2.4 percent “Two or more races”. Approximately 12.5 percent of the county’s population is below the poverty level in comparison to 13.3 percent of the state (US Bureau of the Census, 2002). There are few residences and no concentrations of low-income or minority populations around Grand Forks AFB.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

The effects of the proposed action and the alternatives on the affected environment are discussed in this section. The project involves construction of Tent City on Grand Forks AFB.

4.2 AIR QUALITY

4.2.1 Alternative 1 (No Action)

The no action alternative would not impact air quality.

4.2.2 Alternatives 2 (Proposed Action)

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

4.2.3 Alternative 3

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

4.3 NOISE

4.3.1 Alternative 1 (No Action)

The no action alternative would not impact noise generation.

4.3.2 Alternative 2 (Proposed Action)

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

4.3.3 Alternative 3

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

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4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

4.4.1 Alternative 1 (No Action)

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

4.4.2 Alternative 2 (Proposed Action)

The increase in hazardous and solid wastes from construction of Tent City would be minimal and temporary. Solid waste debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 12 miles of the proposed site. All solid waste materials would be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are encouraged by the State of North Dakota. The use of recycled concrete in lieu of gravel for the bed of Tent City would enhance drainage and is encouraged. Inert waste should be segregated from non-inert waste, where possible, to reduce the cost of waste management.

4.4.3 Alternative 3

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

4.5 WATER RESOURCES

4.5.1 Alternative 1 (No Action Alternative)

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

4.5.2 Alternative 2 (Proposed Alternative)

Groundwater: Actual construction of facilities should not involve deep excavation and this will mean minimal impact on groundwater during construction. Paving the actual tent floors and compaction of soils may reduce infiltration but the surrounding area is entirely grass so impacts will most likely be minimal. Provided best management practices are followed, there will be minimal impacts on ground water.

Surface Water: Surface water quality could be degraded, both in the short-term, during actual construction, and over the long-term due to reduced storm water quality caused by the increase of paved area. The short-term effects come from possible erosion contributing to turbidity of runoff and possible contamination from spills or leaks from construction equipment. The operator must utilize effective methods to control surface water runoff and minimize erosion. Proper stabilization and seeding the site immediately upon completion of the construction would provide beneficial vegetation, controlling erosion. Secondary containment needs must be studied, and implemented if needed, to prevent future contamination of surface water and the environment in general. Long-term surface water degradation could occur simply from the fact that additional area is paved, reducing the ability of local environment to absorb water and increasing both the volume and velocity of storm water runoff. The design of the

paved area must consider these long-term effects and, as required by Federal Law, include mitigating features and BMP's such as allowing the stormwater to run through grassed areas prior to discharge. Provided best management practices are utilized during design and construction, negative surface water impacts should be minimal.

Wastewater: The proposed action would have no impact on wastewater.

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

Wetlands: There are wetlands in this area. Activity in any wetlands cannot occur without a Clean Water Act section 404 permit from the Army Corps of Engineers. No dumping, filling, dredging, or changing of the wetland hydrologic structure is permitted without a permit. Design and construction should avoid impacting wetlands, as there is appropriate room to work around them. BMP's must be utilized during design and construction to decrease volume, flow rates, and maintain water quality of the sites storm water discharges.

4.5.3 Alternative 3

Impacts would be similar to those generated under the proposed action. However, avoidance of the wetlands, floodplain and cultural resource probability areas would be more difficult to achieve and would involve the need for mitigation.

4.6 BIOLOGICAL RESOURCES

4.6.1 Alternative 1 (No Action)

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

4.6.2 Alternative 2 (Proposed Action)

Vegetation: The site location is in a semi-improved area consisting of quality vegetation providing erosion, runoff, and sedimentation control, and habitat for many species. The proposed action will permanently remove all vegetation by placing a 4 inch depth of crushed rock/concrete throughout the entirety of the Tent City footprint. BMPs and control measures, including silt fences and covering of stockpiles, must be implemented to ensure that impacts to biological resources be kept to a minimum outside of the construction footprint. Disturbed areas outside of the Tent City footprint must be re-established with native grass seeding.

Noxious Weeds: Public law 93-629 mandates control of noxious weeds. Limit possible weed seed transport from infested areas to non-infested sites. Avoid activities in or adjacent to heavily infested areas or remove seed sources and propagules from site prior to conducting activities, or limit operations to non-seed producing seasons. Wash or otherwise remove all vegetation and soil from equipment before transporting to a new site. Following activities which expose the soil mitigate by covering the area with weed seed free mulch and/or seed the area with native species.

Covering the soil will reduce the germination of weed seeds, maintain soil moisture, and minimize erosion. If any fill material is used, it should be from a weed-free source.

Wildlife: Construction would have negative impacts to wildlife. The area is semi-improved providing grassland and wetland habitat for small mammals, birds, and invertebrates, such as mice, rabbits, grassland birds, butterflies, and raptors. Due to the abundance and mobility of these species and the available adjacent habitat, any wildlife disturbed would be able to find similar habitat in the local area. Cumulative affects of habitat loss, may result in species competition on the remaining habitats causing strain/stress on available resources, and result in removal of some species from the local landscape.

Threatened or Endangered Species: According to the Biological Survey Update 2004 of GFAFB, 21 state-listed birds and 1 federally listed bird species, 2 state-listed plant species, 1 state-listed mammal species, and 1 state-listed amphibian have been identified at GFAFB. The federally listed bird species (the Bald Eagle) has no critical habitat at GFAFB. Proposed activities should have minimal impact on these sensitive species. Some sensitive species of grassland birds may utilize this habitat, but have not been recorded in this area. Cumulative affects of developing on semi-improved and unimproved lands will contribute to habitat loss for grassland birds. Habitat loss is the number one factor identified causing dramatic declines of this avian assemblage in North America, and is especially prevalent in the great and northern plains of this continent. No known threatened or endangered plant species have been identified in the proposed section.

4.6.3 Alternative 3

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

4.7 SOCIOECONOMIC RESOURCES

4.7.1 Alternative 1 (No Action)

The no action alternative would not impact socioeconomics.

4.7.2 Alternative 2 (Proposed Action)

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

4.7.3 Alternative 3

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

4.8 CULTURAL RESOURCES

4.8.1 Alternative 1 (No Action)

The no action alternative would not impact cultural resources.

4.8.2 Alternative 2 (Proposed Action)

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

4.8.3 Alternative 3

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

4.9 LAND USE

4.9.1 Alternative 1 (No Action)

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

4.9.2 Alternative 2 (Proposed Action)

The proposed operation would not have an impact on this land use currently designated for training.

4.9.3 Alternative 3

The land use would have to be changed from airfield operations to training.

4.10 TRANSPORTATION SYSTEMS

4.10.1 Alternative 1 (No Action)

The action would not impact transportation.

4.10.2 Alternative 2 (Proposed Action)

The proposed action would have minimal adverse impact to transportation systems on base due to vehicles traveling to and from Tent City during construction. Participants in an exercise at

Tent City would be shuttled from another part of the base, and vehicles would remain at existing parking lots.

4.10.3 Alternative 3

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

4.11 AIRSPACE/AIRFIELD OPERATIONS

4.11.1 Alternative 1 (No Action)

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

4.11.2 Alternative 2 (Proposed Action)

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

4.11.3 Alternative 3

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

4.12 SAFETY AND OCCUPATIONAL HEALTH

4.12.1 Alternative 1 (No Action)

The no action alternative would not impact safety and occupational health.

4.12.2 Alternative 2 (Proposed Action)

The proposed action would have no impact on safety and occupational health.

4.12.3 Alternative 3

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

4.13 ENVIRONMENTAL MANAGEMENT

4.13.1 Alternative 1 (No Action)

The no action alternative would not impact IRP Sites or geological resources.

4.13.2 Alternative 2 (Proposed Action)

IRP: The proposed action would not impact IRP Sites.

Geology: The proposed action would not impact geological resources. Soils present in the proposed area include the Gilby series.

Pesticides: A sterlite herbicide, or a ground tarp, may be used to keep weeds from growing through the crushed concrete or gravel bed of Tent City.

4.13.3 Alternative 3

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

4.14 ENVIRONMENTAL JUSTICE

4.14.1 Alternative 1 (No Action)

The no action alternative would not impact environmental justice.

4.14.2 Alternative 2 (Proposed Action)

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

4.14.3 Alternative 3

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

4.15 INDIRECT AND CUMULATIVE IMPACTS

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

have capacity concerns and could readily handle the solid waste generated by the various projects.

4.16 UNAVOIDABLE ADVERSE IMPACTS

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

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

The proposed action and alternatives would involve the use of previously developed areas. No croplands, pastureland, wooded areas, or wetlands would be modified or affected as a result of implementing the Proposed Action and, consequently, productivity of the area would not be degraded. Alternative 3 does involve wetlands, floodplain, and cultural resource areas, and therefore was not the recommended action due to the additional efforts of mitigation.

4.18 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Under the proposed action, fuels, manpower, economic resources, and other recovery materials related to the construction of Tent City would be irreversibly lost.

5.0 LIST OF PREPARERS

Steve Braun
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319 CES/CEVC
525 Tuskegee Airmen Blvd
Grand Forks AFB ND 58205

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NEPA/EIAP Program
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Contract Attorney
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Grand Forks AFB ND 58205

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Bradley J. Schulte, Capt, USAF, BSC
Bioenvironmental Engineering Flight
Commander
319AMDS/SGGB
1599 J St
Grand Forks AFB ND 58205

6.0 LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES

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

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

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

7.0 REFERENCES

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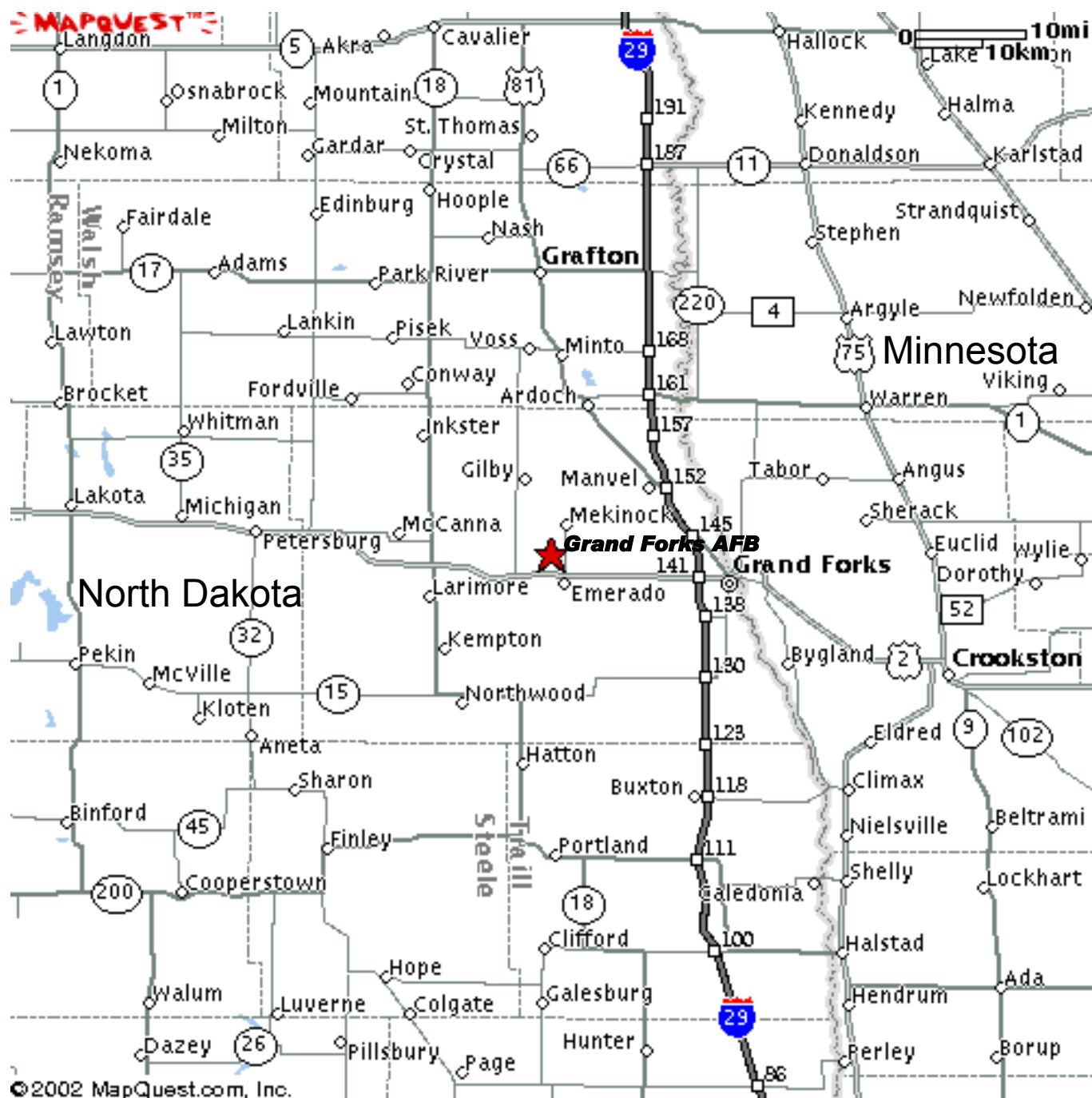
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APPENDIX A
LOCATION MAP – GRAND FORKS AFB

Grand Forks AFB, ND



State Boundary

APPENDIX B
CULTURAL RESOURCE PROBABILITY MAP

Figure 3.5
Survey Areas and
Probabilities

Grand Forks Air Force Base
Cultural Resources Management Plan

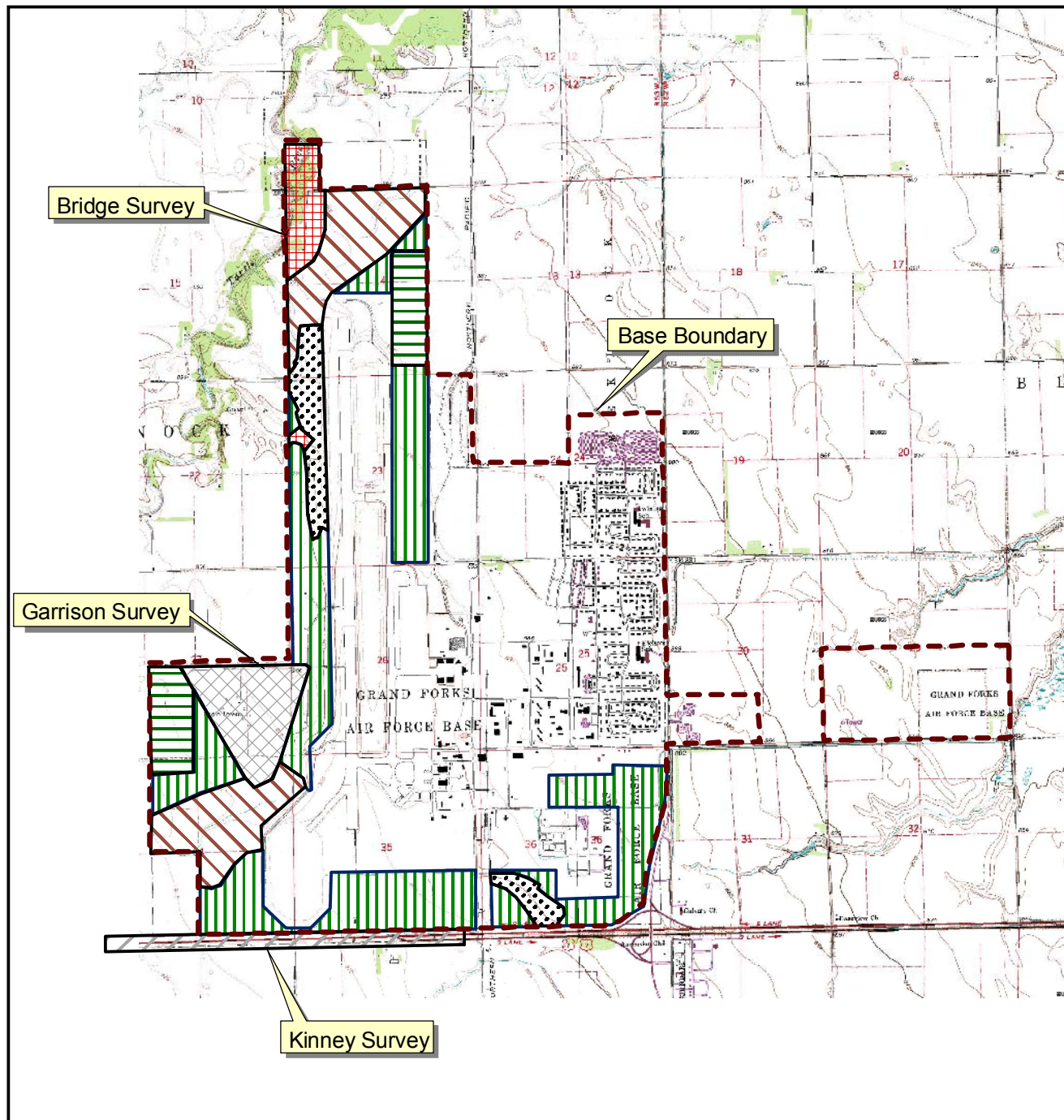
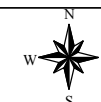
Legend

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

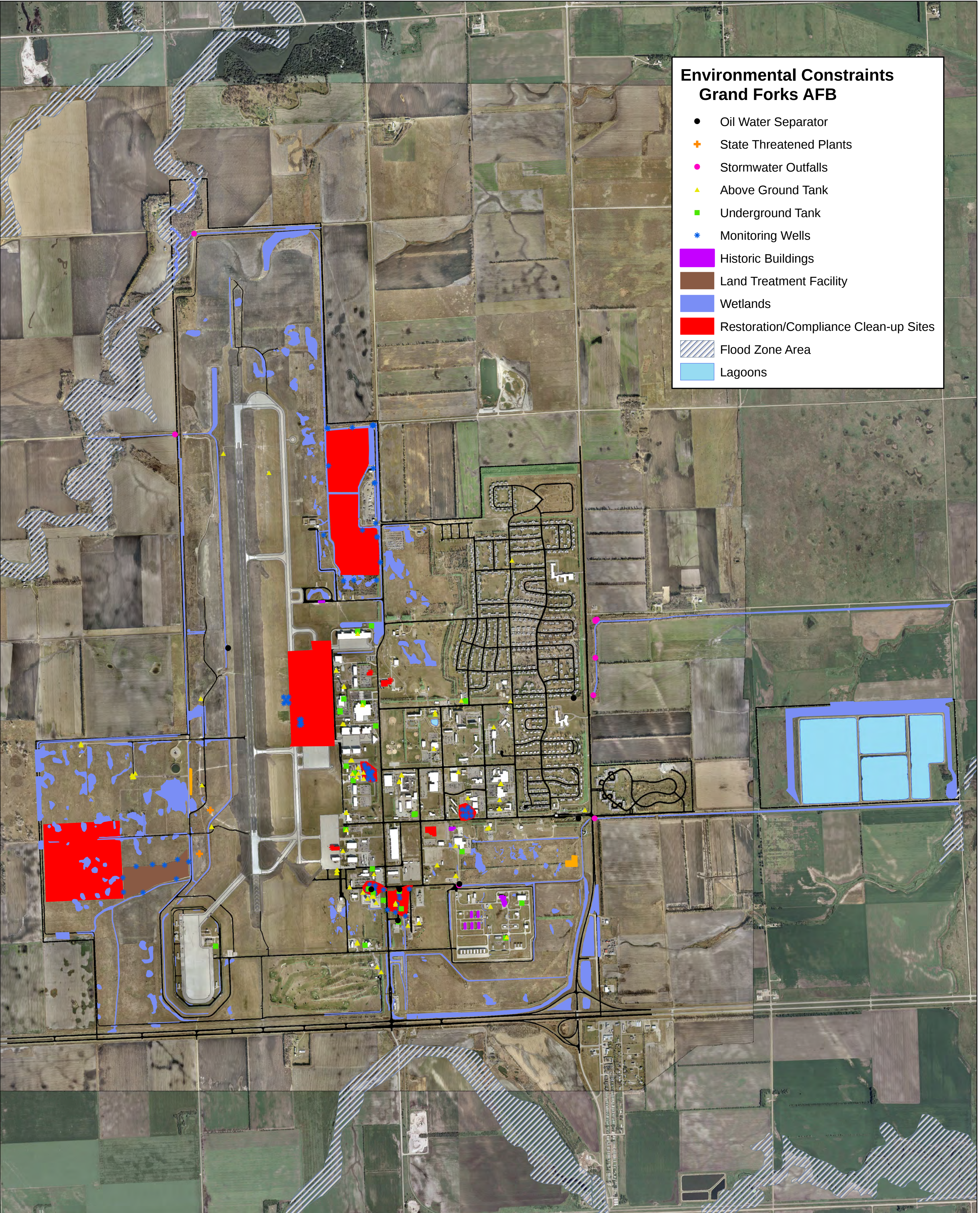
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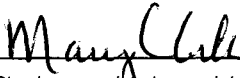
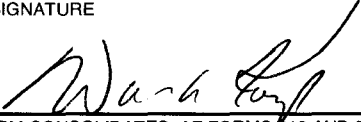
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Date: 5-16-02
Figure Number: 3.5
Page Number: 3-18



APPENDIX C
ENVIRONMENTAL SITE MAP



APPENDIX D
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		Report Control Symbol RCS: 2005-045
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
3. TITLE OF PROPOSED ACTION CONSTRUCT A TENT CITY		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) Provide a realistic, integrated, large-scale training area to enhance the installations capacity to respond, operate and recover from combatant contingency operations in a forward location.		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) Construct 56 each 19 x 31 ft concrete pads within a 326 x 474 ft rectangular area of crushed gravel surface, surrounded by a 6 ft chain link fence, to provide dry surface for tent erection. Continued on reverse.		
6. PROPONENT APPROVAL (Name and Grade) MARY C. GILTNER, GM-13 Deputy Base Civil Engineer	6a. SIGNATURE 	6b. DATE 20041027
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)		
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	☐ + ☒ 0 ☐ - ☐ U	
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	☐ + ☒ 0 ☐ - ☐ U	
9. WATER RESOURCES (Quality, quantity, source, etc.)	☐ + ☐ 0 ☒ - ☐ U	
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)	☐ + ☒ 0 ☐ - ☐ U	
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	☐ + ☒ 0 ☐ - ☐ U	
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)	☐ + ☒ 0 ☐ - ☐ U	
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	☐ + ☒ 0 ☐ - ☐ U	
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	☐ + ☒ 0 ☐ - ☐ U	
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	☐ + ☒ 0 ☐ - ☐ U	
16. OTHER (Potential impacts not addressed above.)	☐ + ☒ 0 ☐ - ☐ U	
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION		
17. ☐ PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR ☒ PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.		
18. REMARKS This action is not "regionally significant" and does not require a conformity determination in accordance with 40 CFR 93.153(1). The total emission of criteria pollutants from the proposed action are below the de minimus thresholds and less than 10 percent of the Air Quality Region's planning inventory		
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) WAYNE A. KOOP, R.E.M., GM-13 Environmental Management Flight Chief	19a. SIGNATURE 	19b. DATE 29 Oct 04

4.0 Purpose and Need for Action

4.1 Purpose of the Action (mission objectives-who proposes to do what, where, when): Provide a realistic, integrated, large-scale training area to enhance the installations capacity to respond, operate and recover from combatant contingency operations in the global war on terrorism.

4.2 Need for the Action (why this action is desired or required-why here, why now): AFI 10-2501 requires an enemy attack exercise not to exceed every fifteen months. A Tent City will provide a permanent location for the recurring exercise. The focus of the exercise is not to display the ability to establish utilities, but the ability to survive and operate in a military operation.

4.3 Objectives for the Action (what goal do you wish to accomplish): The Tent City will provide a large-scale training area to enhance the installations capacity to operate combatant contingency operations in a forward location. It would provide surface for control center work space tents for Wing Operations Center (WOC), Survival Operation Center (SRC), Base Defense Operations Center (BDOC), Maintenance Operations Center (MOC), Civil Engineer Control Center, Command Post (CP), Squadron Operations Center (SOC), Logistics Operations Center, Medical Control Center, Life Support Operations, Armory, Exercise Relocation, PERSCO, dining tents and billeting tents for approximately 300 personnel. AMCPAM 90-202 provides grade sheets on tasks the installation will perform during AMC/IG ATSO ORI.

4.4 Related EISs/EAs and other documents (similar projects in the past): Related RCS # 04-057, 04-236, 01-061 and 01-062 EAs for military exercises. Related RCS # 03-066 and 99-056 EAs for pavement and gravel.

4.5 Decision that must be made: CES will construct a Tent City on Grand Forks AFB.

4.6 Applicable Regulatory Requirements and Required Coordination-- required permits, licenses, entitlements: AF103 work clearance request, Stormwater Permit. If contracted, Contractor must submit a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, Erosion and Sediment Control Plan to the Contracting Officer.

5.0 Description of Proposed Action and Alternatives

5.1 Description of the proposed action (in brief, introduction): CES will construct 56 each 19 x 31 ft x 4" deep concrete pads within a 326 x 474 ft rectangular area of 4" deep crushed gravel surface, surrounded by a 6 ft chain link fence with three strand barb wire. Construction may begin in-house by CES, and continue by contractor, as funds are provided.

5.2 Selection criteria for Alternatives

5.2.1 Minimum mission requirements: Efficiency, Effectiveness, Safety, Sanitation, Dry Surface, Electrical Power, Fiber Optic Communications, to meet AFI 10-2501 requirements of an enemy attack exercise not to exceed every fifteen months.

5.2.2 Minimum environmental standards: Meet OSHA, AFOSH, NFPA, AFI, CFR, EPA and North Dakota standards for noise, air, water, safety, HW, vegetation, cultural, geology, soils, socioeconomic.

5.3 Alternatives Considered but Eliminated from Detailed Study: Retrofit and utilize Bldg 517. Cost to renovate is unknown but potentially high. Placing all major command and control operations in one location is not feasible due to the limited size of Bldg 517. CE Park was also considered, but not selected due to its location in a floodplain, and the extensive clearing and preparation required to make the area suitable.

5.4 Description of proposed alternatives

5.4.1 No-action alternative: No tent city will be constructed. Enemy attack exercises will continue to be conducted in off base locations without services, requiring military airlift support, which is costly and may be unavailable or limited.

5.4.2 Proposed Action: In Area 1 or 2 on the enclosed map, CES will construct 56 each 19 ft x 31 ft x 4 in deep concrete pads within a 326 x 474 ft rectangular area of 4 inch deep crushed gravel surface, surrounded by a 6 ft chain link fence with three strand barb wire, and one gate entrance. CES will provide electrical power, fiber optic communication lines, water line with a deep shutoff valve for shower tents, sanitary sewer line, and porta potties. CES will provide underground power with transformers, and power stubs to run power to each tent pad. Security lights will surround the perimeter, and will be sufficient to meet airfield height requirements and avoid an airfield waiver. The inside gravel perimeter will serve as a perimeter road for Tent City. The entire location will be sited to avoid the wetland areas south of Bldg 517 and 516. Runoff and drainage will be addressed during design of the project. Excess spoil material (black dirt) from the area will be transported to an on-base material stockpile ("Pea Patch").

5.4.3 Another Reasonable Action Alternative: Area 3 on the enclosed map was considered for the location of Tent City. However, it is a low area currently being developed for deicer contaminated water storage, which may last all year. A ditch crossing would require a Section 404 USACE permit, which usually takes two months for approval. Area 4 was considered, but it contains several wetlands which cannot be avoided. An EA would require a FONPA, Finding of No Practicable Alternative, signed by AMC/CV, and Section 404 USACE permit. Area 5 was considered, but ditch and wetland crossings would require Section 404 USACE permit. The area is also a high probability site for Cultural Resources and would require a full cultural resource survey accomplished for State Historical Society.

5.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts: Several projects to gravel and pave areas have been accomplished in the past, contributing to a improved, military base environment.

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB.

5.6 Recommendation of preferred alternative: Grand Forks AFB will construct a Tent City in Area 1 or 2.

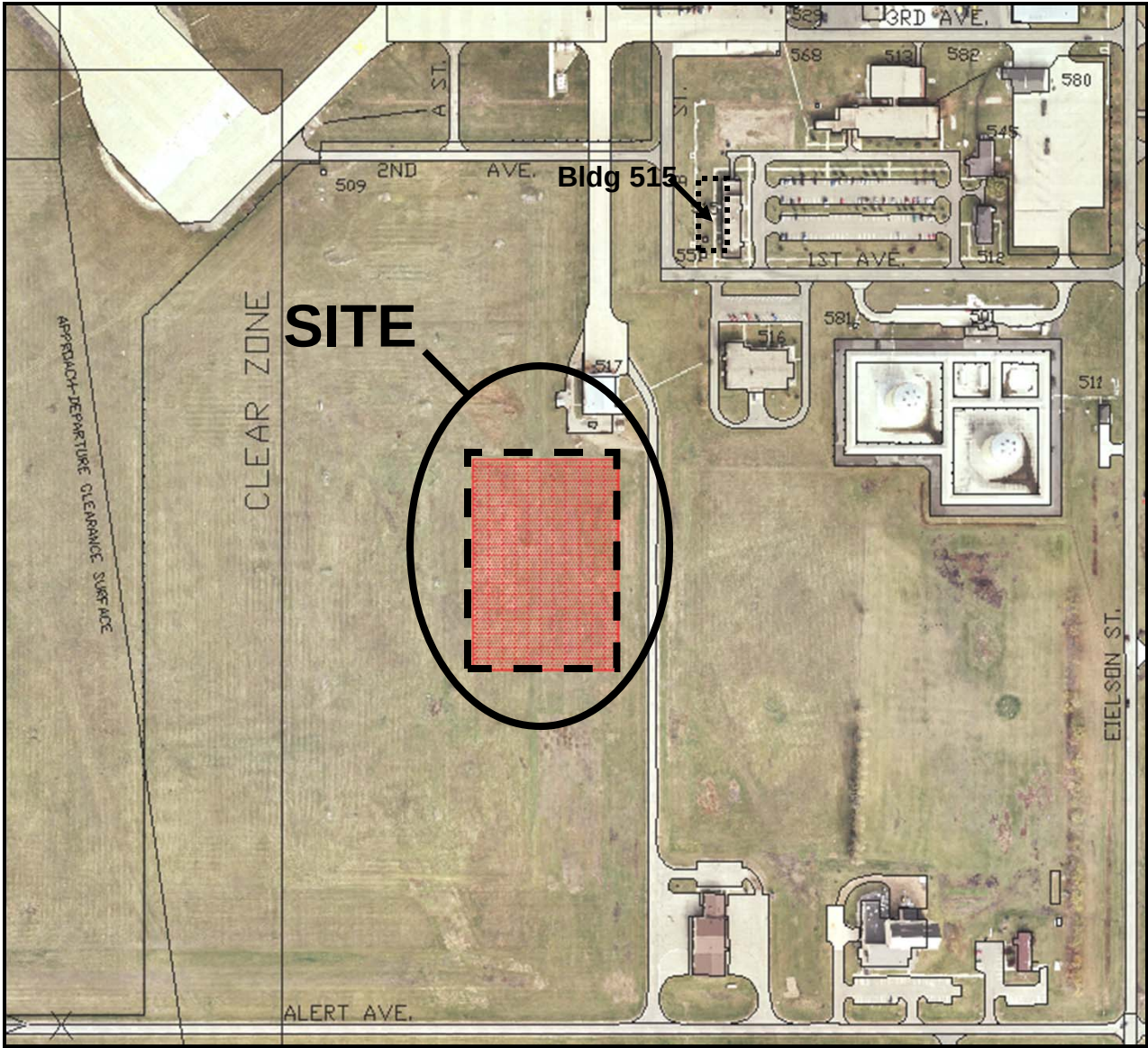
APPENDIX E
LOCATION MAP – PROPOSED AND ALTERNATIVE SITES



1 COMPONENT AF (AMC)	FY 2005 MILITARY CONSTRUCTION DATA	2 DATE 04 Nov 04
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3 INSTALLATION AND LOCATION GRAND FORKS AFB, NORTH DAKOTA
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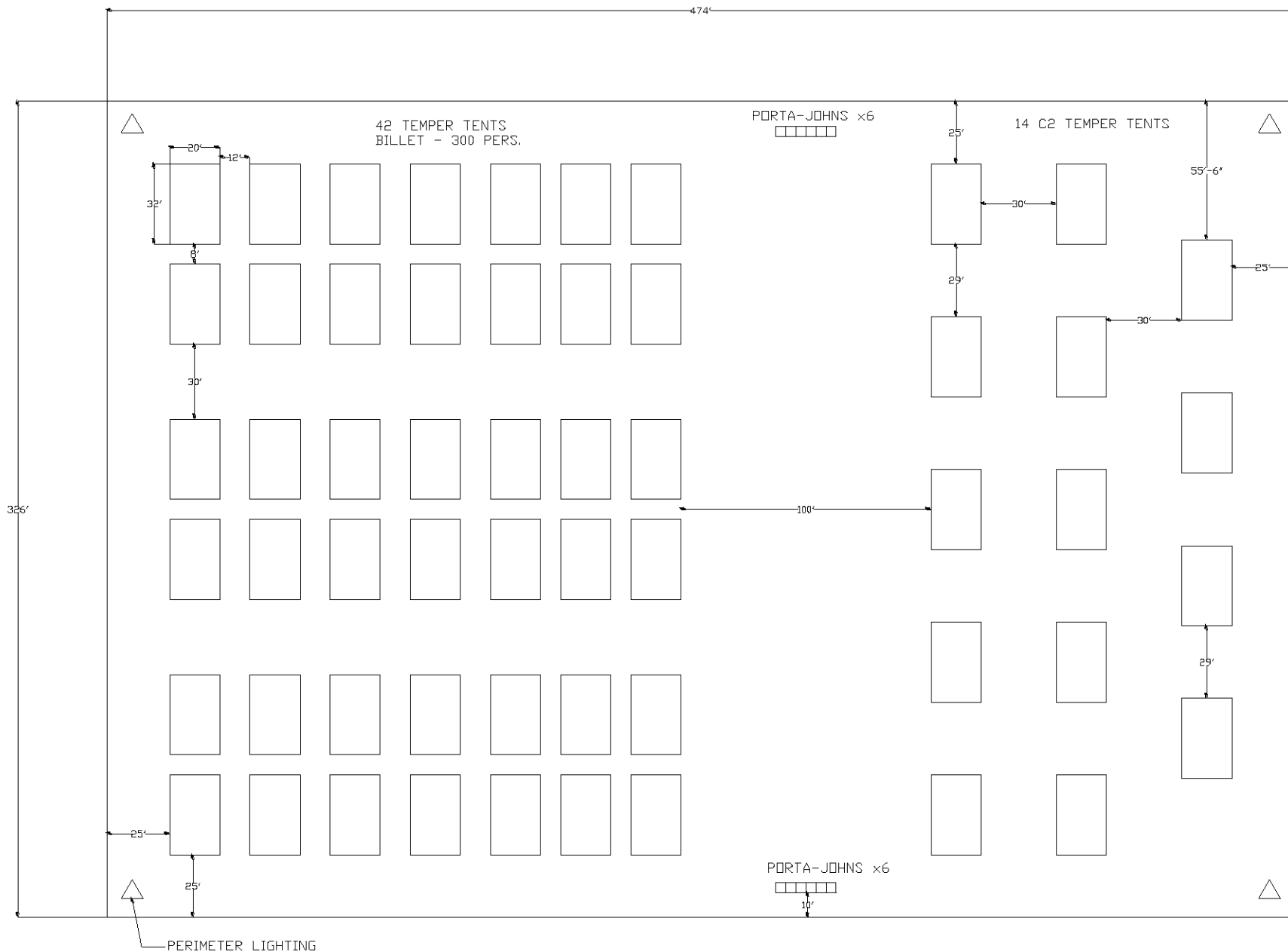
4 PROJECT TITLE Tent City Training Location	5 PROJECT NUMBER NA
--	------------------------



SITE PLAN



FACILITY BOARD APPROVAL	DATE
-------------------------	------



2407

AFFIDAVIT OF PUBLICATION

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

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

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

AIR FORCE BASE PUBLIC NOTIFICATION
Grand Forks Air Force Base has proposed construction of a tent training area.
An environmental assessment has been conducted and a finding of no significant impact has been determined for this action.
Anyone who would like to view the support documents to this action should contact the 319th Air Refueling Wing Public Affairs Office by November 12, 2004, at 747-5017.
(November 4, 6, 2004)

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 Tent Training

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

<u>11-4</u>	Yr. <u>04</u>	_____	Yr. _____
<u>11-6</u>	Yr. <u>04</u>	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____
_____	Yr. _____	_____	Yr. _____

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

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

Publication Fee \$ 15.18

Subscribed and sworn to before me this 9 day of Nov A.D. 04

ELAINE LAWRETT
NOTARY PUBLIC
STATE OF NORTH DAKOTA
My Commission Expires Feb. 7, 2005

Elaine Lawrett
Notary Public, Grand Forks, ND

Grand Forks Herald

Nov, 4, 6, 2004

AIR FORCE BASE PUBLIC NOTIFICATION

Grand Forks Air Force Base has proposed construction of a tent training area.

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Anyone who would like to view the support documents to this action should contact the 316th Air Refueling Wing Public Affairs Office by November 12, 2004, at 747-5017.

(November 4, 6, 2004)

Officers selected for AMC Phoenix Horizon program

Three captains here were selected in 2004 for the Air Mobility Command's Phoenix Horizon programs.

Capt. Jeffery D. Johns, 319th Aircraft Maintenance Squadron Viking flight commander, and Capt. Charles D. Cooley, 906th Air Refueling Squadron, will leave in June for the two-year Phoenix HAWK program. They will spend one year in the Tanker Airlift Control Center, Scott Air Force Base, Ill. learning global air mobility operations and one year on the Air Mobility Command staff learning effective staff skills.

As part of the Phoenix REACH program Capt. Robert E. Evert will cross train onto the C-5 galaxy. The program allows him to retrain without a break in flying. He will leave for Travis Air Force Base, Calif. in March.

An article on the selectees and the programs will appear in next week's Leader.

Public notice

The base has proposed construction of training area.

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

Anyone who would like to view the support documents to this action should contact the public affairs office by Nov. 12, at 747-5017.

Free Microsoft programs and hardware

Air Force Headquarters has signed an agreement with Microsoft for Air Force-wide licensing of desktops and server products.

The agreement, which replaces 43 contracts with Microsoft, allows Air Mobility Command personnel to obtain Microsoft products for personal use through two programs.

The home use program allows select military, civil service personnel, and contractors on the AMC-2K domain to obtain a licensed copy of Microsoft software for home use. Participants of the program need a .mil email address to take advantage of the program.

The employee purchase plan gives employees discounts off retail pricing on

Microsoft's most popular productivity and consumer products including hardware, software and games.

For details and program codes contact your work group manager.

Applicants sought for IA scholarship program

RANDOLPH AIR FORCE BASE, Texas — The Air Force is offering qualified officers the opportunity to participate in the Information Assurance Scholarship Program, established to increase the number of qualified people entering the information assurance career field.

A board will convene Dec. 10 at the Air Force Personnel Center here to select officers for attendance at the Information Resources Management College, Navy Post Graduate School, or Air Force Institute of Technology.

The Defense Department program covers temporary duty cost, tuition, fees and books and varies in length from 18 to 24 months, depending on selected school.

The program provides students with the National Security Telecommunications and Information Systems Security Instruction 4011 certification.

Information on eligibility requirements, submitting applications and participating schools can be found at <http://www.defenselink.mil/nii/iasp/>.

All applications must arrive at AFPC no later than Nov. 19. Applicants should send completed applications to : HQ AFPC/DPAPE, 550 C Street West, Ste 32, Randolph AFB, TX 78150-4734.

LRS makes final round for Daedalian award

The Grand Forks Air Force Base Logistics Readiness Squadron is one of three Air Mobility Command finalists for the Maj. Gen. Warren R. Carter Daedalian Logistics Readiness Effectiveness Award. It was first awarded in 1962 and is presented annually to the Air Force LRS unit with the best supply effectiveness record in support of mission aircraft and/or weapons.

The evaluation team arrives Monday and evaluates the squadron on Tuesday for the title of "Best Logistics Readiness Squadron in Air Mobility Command." Other AMC finalists are Charleston Air Force Base, SC., and Dover AFB Del.



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Members
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The LCI DEAD



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

OCT 29 2004

MEMORANDUM FOR Dr. Terry Dwelle, State Health Officer
North Dakota Department of Health
600 East Boulevard Avenue, Dept 301
Bismarck, ND 58505-0200

FROM: 319 CES/CEV
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

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

Dear Dr. Dwelle:

The U.S. Air Force is preparing an environmental assessment (EA) on construction of Tent Training Area. Attached is an electronic copy of the EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. Grand Forks AFB has intentions to pour concrete before cold weather. Therefore, we respectfully request that your comments be sent, electronically if necessary, to reach our office by November 8, 2004, to:

Mrs. Diane Strom, 319 CES/CEVA
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Mrs. Diane Strom at 701-747-6394, or email diane.strom@grandforks.af.mil.

A handwritten signature in black ink, appearing to read "Wayne A. Koop", is positioned above the typed name.

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

Attachment: EA

cc:

North Dakota Game and Fish
State Historical Society of North Dakota

Community Services

Economic
Development & Finance

Tourism

Workforce Development



Century Center
1600 E. Century Ave

Suite 2

PO Box 2057

Bismarck, ND 58502-2057

Phone 701-328-5300

Fax 701-328-5320

www.ndcommerce.com



November 16, 2004

Diane M. Strom
Dept. of the Air Force
319 CES/CEVA
525 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205-6434

"Letter of Clearance" In Conformance with the North Dakota Federal Program
Review System - State Application Identifier No.: ND041116-0517.

Dear Ms. Strom:

SUBJECT: FONSI - Construct Tent City.

The above referenced FONSI has been reviewed through the North Dakota Federal
Program Review Process. As a result of the review, clearance is given to the project
only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or
area of impact, from the project description submitted for review, then it is necessary
to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or
continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office.
Your continued cooperation in the review process is much appreciated.

Sincerely,

A handwritten signature in cursive script, reading "James R. Boyd".

James R. Boyd
Manager of Governmental Services

mb

Rec 18 Nov 04



John Hoeven
Governor of North Dakota

November 2, 2004

North Dakota
State Historical Board

Diane K. Larson
Bismarck - President

Marvin L. Kaiser
Williston - Vice President

Albert I. Berger
Grand Forks - Secretary

Chester E. Nelson, Jr.
Bismarck

Gereld Gerntholz
Valley City

A. Ruric Todd III
Jamestown

Sara Otte Coleman
Director
Tourism Division

Kathi Gilmore
State Treasurer

Alvin A. Jaeger
Secretary of State

Douglass Prchal
Director
Parks and Recreation
Department

David A. Sprynczynatyk
Director
Department of Transportation

John E. Von Rueden
Bismarck

Merlan E. Paaverud, Jr.
Director

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

ND SHPO Ref.: 97-0527aw, Draft EA, Tent Training Area, Grand Forks AFB,
ND.

Dear Ms. Strom:

We have reviewed: *Environmental Assessment, Tent City At Grand Forks AFB, North Dakota* (Draft Version, 29 Oct 04), and have the following comment:

1) Borrow material/fill, if required for this project, should be derived from an approved source.

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

Sincerely,

Duane Klinner for

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

Accredited by the
American Association
of Museums



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

OCT 29 2004

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525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205-6434

Your assistance in providing information is greatly appreciated. If you have any questions, please call Mrs. Diane Strom at 701-747-6394, or email diane.strom@grandforks.af.mil.

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

Attachment: EA

cc:

North Dakota Game and Fish
State Historical Society of North Dakota



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: 11/11/04

2005-045



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
1200 Missouri Avenue, Bismarck, ND 58504-5264
P.O. Box 5520, Bismarck, ND 58506-5520
701.328.5200 (fax)
www.ndhealth.gov



November 2, 2004

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

Re: Environmental Assessment for Tent City
Grand Forks Air Force Base, Grand Forks County

Dear Mrs. Strom:

This department has reviewed the information concerning the above-referenced project submitted under date of October 29, 2004, with respect to possible environmental impacts.

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

1. 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. 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.
3. 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 affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
4. 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

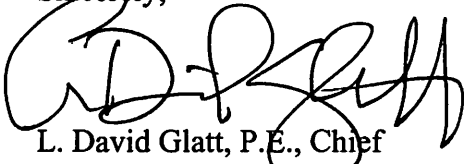
equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

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

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

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

Sincerely,



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

LDG:cc
Attach.



NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

Location:

1200 Missouri Avenue
Bismarck, ND 58504-5264

Fax #:

701-328-5200

Mailing Address:

P.O. Box 5520
Bismarck, ND 58506-5520

December 2000

Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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

Environmental Health
Section Chief's Office
701-328-5150

Air
Quality
701-328-5188

Municipal
Facilities
701-328-5211

Waste
Management
701-328-5166

Water
Quality
701-328-5210



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

9 November 2004

MEMORANDUM FOR 319 CES/CEVA

FROM: 319 ARW/JA

SUBJECT: Environmental Assessment and FONSI for Tent City

1. **ISSUE/RECOMMENDATION:** The proposed Environmental Assessment and FONSI is legally sufficient.
2. **LAW:** National Environmental Policy Act, 32 CFR Part 989
3. **FACTS:** GFAFB would construct a tent city for training purposes. Several alternatives were considered.
4. **DISCUSSION:** From a legal viewpoint, the proposed site does not have a significant environmental impact. The Environmental Assessment describes alternatives and impacts to the environment. None of the requirements outlined in 32 CFR Part 989 (e)(2) for a 30 day comment period is present. The abbreviated (shortened) comment public period is appropriate. Because this project does not appear to be controversial and no adverse comments were received from the North Dakota Department of Health and the State Historical Society I do not anticipate receipt of further public comment. However, if any member of the public requests additional time for public comment this office requests it be notified.
5. If you have any questions, I can be reached at ext. 73618.

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