APPENDIX A.
INTERGOVERNMENTAL COORDINATION, PUBLIC AND AGENCY PARTICIPATION

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Mailing List

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U.S. Department of Agriculture - Natural Resources Conservation Service
4775 Technology Circle #1B
Grand Forks, ND 58203-5635

U.S. Army Corps of Engineers - North Dakota Regulatory Office
2219 University Drive
Bismarck, ND 58504

North Dakota State Water Commission
900 East Boulevard Ave, Dept 770
Bismarck, ND 58505-0850

Bill Peterson
SHPO
State Historical Society of North Dakota
State Historical Society of North Dakota
612 East Boulevard Ave
Bismarck, ND 58505

Jessica Johnson
U.S. Fish and Wildlife - North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501

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

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

Jeb Williams
Director
North Dakota Game and Fish Department
100 North Bismarck Expressway
Bismarck, ND 58501

Dear Mr. Williams,

The United States Air Force (USAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts of reconstruction of the ground topography and the natural and manmade water features within the Aircraft Movement Area (AMA) plus 500 feet, including all areas inside the AFB airfield security fence, in compliance with the National Environmental Policy Act of 1969 (NEPA). Taking into account various environmental concerns, the USAF is engaging early with the appropriate resource and regulatory agencies as it formulates the undertaking. Accordingly, the USAF seeks consultation with your office.

The purpose of the action is to bring the airfield into compliance with Air Force Instruction (AFI) 91-212, Bird/wildlife Aircraft Strike Hazard (BASH) Management Program, and AFI 91-202, US Air Force Mishap Prevention Program. Vegetative cover within the project area must be maintained at a height between 7 to 14 inches and converted to locally adapted vegetation species deemed unattractive to birds and other wildlife.

Grand Forks AFB needs to remove standing water, improve drainage, regrade, grub and level fields, create less attractive habitat, control vegetation heights to comply with BASH AFI's and improve ground maintenance accessibility and operations in order to preserve national defense capabilities and support mission requirements. The intent of this EA is to address potential environmental impacts of the proposed airfield drainage improvements, landscape reconstruction, reseeding/vegetation control, and wetlands mitigation project.

The EA will assess the potential environmental consequences associated with the Proposed Action and No Action alternative. The EA will also examine the cumulative effects when combined with past, present, and any reasonably foreseeable future actions. In support of this process, we request your input in identifying general or specific issues or areas of concern you believe should be addressed in the EA.

We intend to provide your organization with a copy of the Draft EA when the document is completed. Please inform us if additional copies are needed or if someone else within your government other than you should receive the Draft EA.

Please reach out to my point of contact, provided below on any issues or concerns you have in the development of this EA. We ask your assistance in identifying any issues or concerns of which we may be unaware, particularly those that may be affected by this proposal.

The USAF Point of Contact is Mr. Robert Greene. Please send him your comments and concerns to 319 CES/CEIEC, 25 Tuskegee Airmen Blvd, Grand Forks AFB, North Dakota, 58205, or by email at robert.greene.13@us.af.mil. I look forward to receiving any input you may have regarding this endeavor. Thank you in advance for your assistance in this effort.

Sincerely,

LANDON.LANCE.ERIC.1458635028
Digitally signed by LANDON.LANCE.ERIC.1458635028
Date: 2023.07.20 13:43:12 -05'00'

Lance E. Landon
Deputy Base Civil Engineer

Attachment:
Description of the Proposed Action and Alternatives

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

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

Jessica Johnson
United States Fish and Wildlife Service
3425 Miriam Avenue
Bismarck, ND 58501

Subject: Introduction of the Environmental Impact Analysis for Airfield Bird/Wildlife Aircraft Strike Hazard Mitigation for Grand Forks Air Force Base (AFB), North Dakota

Dear Ms. Johnson,

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the United States Fish and Wildlife Services (USFWS) may have an interest, and, pursuant to 50 Code of Federal Regulations (CFR) § 402.12(c), request a list of Federally-listed species that may be present in the action area.

The United States (U.S.) Air Force (Air Force) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts of reconstruction of the ground topography and the natural and manmade water features within the Aircraft Movement Area (AMA) plus 500 feet, including all areas inside the AFB airfield security fence, in compliance with the National Environmental Policy Act of 1969 (NEPA) (Title 42 of the United States Code, Section 4331 [U.S.C. § 4331] et seq.); the Council on Environmental Quality (CEQ) regulations that implement NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500–1508); and Air Force's Environmental Impact Analysis Process (EIAP) regulations at 32 CFR Part 989, Environmental Impact Analysis Process. Location maps are included as part of the attachment.

The purpose of the action is to bring the airfield into compliance with Air Force Instruction (AFI) 91-212, Bird/wildlife Aircraft Strike Hazard (BASH) Management Program, and AFI 91-202, US Air Force Mishap Prevention Program. Vegetative cover within the project area must be maintained at a height between 7 to 14 inches and converted to locally adapted vegetation species deemed unattractive to birds and other wildlife.

Grand Forks AFB needs to remove standing water, improve drainage, regrade, grub and level fields, create less attractive habitat, control vegetation heights to comply with BASH AFI's and improve ground maintenance accessibility and operations in order to preserve national defense capabilities and support mission requirements. The intent of this EA is to address potential environmental impacts of the proposed airfield drainage improvements, landscape reconstruction, reseeding/vegetation control, and wetlands mitigation project.

The EA will assess the potential environmental consequences associated with the Proposed Action and no action alternative. Potential impacts identified during the initial planning stages include effects on noise, air quality, infrastructure/utilities, biological and cultural

resources, and water resources. The EA will also examine the cumulative effects when combined with past, present, and any reasonably foreseeable future actions. In support of this process, we request your input in identifying general or specific issues or areas of concern you believe should be addressed in the EA.

We intend to provide you with a copy of the Draft EA when the document is completed. Please inform us if additional copies are needed or if someone else within your government other than you should receive the Draft EA. We will also provide you with a 36 CFR 800.4 effects determination after we have completed the historic property identification process.

Please reach out to my point of contact, provided below on any issues or concerns you have in the development of this EA. We ask your assistance in identifying any issues or concerns of which we may be unaware, particularly those that may be affected by this proposal.

The USAF Point of Contact is Mr. Robert Greene. Please send him your comments and concerns to 319 CES/CEIEC, 25 Tuskegee Airmen Blvd, Grand Forks AFB, North Dakota, 58205, or by email at robert.greene.13@us.af.mil. I look forward to receiving any input you may have regarding this endeavor. Thank you in advance for your assistance in this effort.

Sincerely,

LANDON.LANCE.ERIC.1458635028
Digitally signed by LANDON.LANCE.ERIC.1458635028
Date: 2023.07.20 13:45:21 -05'00'

Lance E. Landon
Deputy Base Civil Engineer

Attachment:
Description of the Proposed Action and Alternatives

Attachment available in the Administrative Record.

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December 15, 2023

Lance Landon
U.S. Air Force
319CES/CD
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58206

ND SHPO Ref: 23-0234 Cavalier County WMA in portions of [T161N R56W Section 31] in Pembina County, North Dakota

Dear Mr. Landon,

We have completed review of the final report for ND SHPO Ref: 21-6332 titled "Grand Forks Air Force Base Bird/Wildlife Aircraft Strike Hazard Management Program: A Class III Cultural Resources and Traditional Cultural Properties Inventory in Grand Forks County, North Dakota" by Daan Meens of Metcalf Archaeological Consultants. We concur with a determination of "No Historic Properties Affected" for this project provided it takes place in the location and in the manner described in the documentation.

Thank you for the opportunity to review this project. Please include the ND SHPO Reference number listed above in further correspondence for this specific project. If you have any questions, please contact Lorna Meidinger, Lead Historic Preservation Specialist at (701) 328-2089 or lbmeidinger@nd.gov.

Sincerely,

for William D. Peterson, PhD
State Historic Preservation Officer
(North Dakota)

23-0234

NORTH Dakota | Environmental Quality
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August 17, 2023

Robert Greene
U.S. Air Force 319 CES/CEIEC
25 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205

Re: Grand Forks Air Force Base Environmental Assessment for Airfield Work in Grand Forks County

Dear Mr. Greene:

The North Dakota Department of Environmental Quality has reviewed the information concerning the above-referenced project received at the department on August 14, 2023, with respect to possible environmental impacts.

1. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

2. Projects disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the re-establishment of vegetation or other permanent cover. Further information on the stormwater permit may be obtained from the department's website or by calling the Division of Water Quality at 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 stormwater management considerations are addressed.

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

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.

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

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

Sincerely,

L. David Glatt, P.E., Director
North Dakota Department of Environmental Quality

LDG:ll
Attach.

Construction and Environmental Disturbance Requirements

The following are the minimum requirements of the North Dakota Department of Environmental Quality for projects that involve construction and environmental disturbance in or near waters of the State of North Dakota. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect waters of the state. All projects must be constructed to minimize the loss of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion and sediment loss using erosion and sediment controls. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, and land resources must be prohibited against compaction, vegetation loss and unnecessary damage.

Surface Waters

All construction must be managed to minimize impacts to aquatic systems. Follow safe storage and handling procedures to prevent the contamination of water from fuel spills, lubricants, and chemicals. Stream bank and stream bed disturbances must be contained to minimize silt movement, nutrient upsurges, plant dislocations, and any physical chemicals, or biological disruption. The use of pesticides or herbicides in or near surface waters is allowed under the department's pesticide application permit with notification to the department.

Fill Material

Any fill material place below the ordinary high-water mark must be free of topsoil, decomposable materials, and persistent synthetic organic compounds; including, but not limited to, asphalt, tires, treated lumber, and construction debris. The department may require testing of fill material. All temporary fills must be removed. Debris and solid waste must be properly disposed or recycled. Impacted areas must be restored to near original condition.

NORTH Dakota | Water Resources
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August 23, 2023

Mr. Robert Green
Dept. of the Air Force
319 CES/CD
525 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205

Dear Mr. Green:

This is in response to your request for a review of the environmental impacts associated the reconstruction of the ground topography and the natural and manmade water features within the Aircraft Movement Area.

The proposed project has been reviewed by Department of Water Resources, and the following comments are provided:

- There is a FEMA National Flood Insurance Program (NFIP) regulatory floodplain identified or mapped where this proposed project is to take place. Impacted areas are designated to be in NFIP Zone A. The State of North Dakota has no formal NFIP permitting authority, as all NFIP permitting decisions are considered by impacted NFIP participating communities, which is the community with zoning authority for the area in question. Please work directly with the local floodplain administrator of the zoning authority impacted to achieve NFIP and community compliance.

- The Department of Water Resources' (DWR) Engineering and Permitting Section reviewed the project location and determined that it likely will require a surface drain permit. For more information on these requirements, please visit the Regulation & Appropriation tab on the DWR's website (dwr.nd.gov) or contact the DWR's Regulatory Division at (701) 328-4956 or dwrregpermits@nd.gov.

- Initial review indicates the project does not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the project, a water permit will be required per North Dakota Century Code § 61-04-02. Please consult with the Department of Water Resources Water Appropriation Division if you have any questions at (701) 328-2754 or appropinfo@nd.gov.

Thank you for the opportunity to provide review comments. Should you have further questions, please contact me at (701) 328-4967 or atravnicek@nd.gov.

Sincerely,

Andrea Travnicek
Director

CD:dm/1570

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

9/08/2023

Ref: 8ORA-N

Mr. Robert Greene
319 CES/CEIC
25 Tuskegee Airmen Blvd
Grand Forks AFB, ND 58205
robert.greene@us.af.mil

Dear Mr. Greene,

The U.S. Environmental Protection Agency Region 8 (EPA) has completed a review of the U.S. Department of the Air Force's (USAF) July 28, 2023, notice to prepare an Environmental Assessment (EA) analyzing the potential impacts of reconstruction of ground topography and natural and manmade water features within the Aircraft Movement Area (AMA) including all areas inside the airfield security fence in Grand Forks County, North Dakota.

EPA understands that the purpose and need for the proposed Project is to bring the airfield into compliance with Air Force Instruction (AFI) 91-212*, Bird/wildlife Aircraft Strike Hazard* (BASH) *Management Program* and AFI 91-202, *USAF Mishap Prevention Program*. The Proposed Action would consist of removing standing water, drainage improvement, regrading of fields, creation of less attractive habitat for birds and wildlife, control of vegetation heights, and improvement of accessibility for maintenance and operations.

Based on the review of the USAF notice and the Final Description of the proposed Project and Alternatives for Airfield BASH Mitigation for Grand Forks Air Force Base (AFB), the EPA's initial comments and recommendations on the scope of the Draft EA are specific to the following areas: (1) water resources, (2) air quality, (3) climate change, (4) noxious weeds, (5) hazardous waste, and (6) consideration of impacts to rural communities.

We appreciate your consideration of our comments at this early stage of the project planning process. If further explanation of our comments is desired, please contact me at (303) 312-6155 or

mccoy.melissa@epa.gov, or Amanda Jensen, Lead NEPA Reviewer, at jensen.amanda@epa.gov or (303) 312-6981.

Sincerely,

Melissa W. McCoy, Ph.D., J.D.
Manager, NEPA Branch
Office of the Regional Administrator

Enclosure

Enclosure – EPA Scoping Comments on Proposed Mitigation at Grand Forks AFB

(1) Water Resources

Existing Conditions

Existing conditions are a key frame of reference for quantifying and characterizing magnitudes of adverse and positive environmental effects from the proposed Project. The EPA recommends evaluating the effects of the proposed Project and alternatives against existing environmental conditions and that the Draft EA identify existing data and verify whether historical data are representative of current conditions.

- Provide clear maps of the project area, including wetland delineation and regional water features.
- Conduct a wetland function analysis if there is any potential that an alternative will cause impacts.
- Include resources directly impacted by potential project footprints within the geographic scope of analysis, as well as the resources indirectly (or secondarily) impacted by any of the alternatives. These indirectly impacted areas may include downstream segments, streams, and any other resource areas which may be affected by changes in water management or operations.

The EPA recommends that the Draft EA include a discussion of existing aquatic resource conditions in the project area, to provide the basis for an effective analysis of potentially significant impacts from the proposed construction to hydrology, water quality, habitat, and other water resources in the project area. To describe effects to aquatic resources in the project area, we recommend the Draft EA document include the following analyses or descriptions:

- A clear map and summary of project area waters and downstream waters, including streams, lakes, springs, and wetlands. It would be helpful if the summary identified high resource value water bodies and their designated beneficial uses (e.g., agriculture, fisheries, drinking water, recreation);
- Types, function, conditions and acreages of wetlands, riparian areas, and springs;
- Watershed conditions, including vegetation cover and composition, soil conditions, and areas not meeting desired future conditions;
- Surface water information, including available water quality data in relation to current North Dakota Water Quality Standards, stream functional assessments, stream channel/stream bank stability conditions, sediment loads, and aquatic life;
- A map and list of Clean Water Act (CWA) impaired or threatened water body segments within, or downstream of, the planning area, including the designated uses of the water bodies and the specific pollutants of concern potentially affected by on-going activities within or adjacent to the Project area; and
- Available groundwater information, including quality and location of aquifers.

Water Quality Data

Water quality data for the streams, lakes, and wetlands within or adjacent to the project area provide important information for evaluating the potential influence of the Project on downstream water quality. Such an evaluation can then guide management for the Project, with the data providing a baseline for future monitoring of impacts. We recommend the Draft EA provide a summary of available information and monitoring data on water quality within the project area and for downstream waters that may be affected by the proposed Project and alternatives, including parameters such as total phosphorus, total nitrogen, total suspended solids, turbidity, total dissolved solids, and temperature. It will also be important to include water quality data for parameters listed for impaired water bodies within or downstream of the project area. Identifying any significant gaps in available data may be helpful in developing a monitoring plan. At a minimum, the EPA recommends providing a reference to publicly accessible technical documentation or an appendix that contains the requested relevant water quality data.

Potential Impacts to Impaired Waterbodies

Based upon the most recent EPA-approved Integrated Report list for North Dakota (2018) there are impaired streams (e.g., Turtle River) located within the proposed project area. These resources are important to evaluate as the proposed activities may further impact systems or portions of systems downstream. We recommend the Draft EA include an analysis of water quality that, at a minimum, evaluates the following areas:

- Water quality impairments per State CWA Section 303(d) lists, draft or established TMDLs, and potentially affected dischargers
  - The project area intersects an already known water quality limited stream with impairments for biota and habitat; and,
- Source Water Protection areas and explanation of how the project will be consistent with Source Water Protection planning measures.

Wetlands

The EPA recommends the Draft EA include a description of the impacts to wetlands that may result from the proposed Project and alternatives. Such impacts may include changes to supporting wetland hydrology (e.g., snow melt patterns or groundwater hydrology); and wetland disturbance and loss. We recommend the USAF analyze the direct, indirect, and cumulative impacts to all wetlands within the geographic scope of potential impacts, including impacts to wetlands from changes in hydrology even if these wetlands are spatially removed from the construction of the footprint. We also recommend the Draft EA demonstrate that the destruction, degradation, and modification of all wetlands will be avoided and minimized on federal lands as outlined in Executive Order (E.O.) 11990, *Protection of Wetlands*. This involves mapping all wetlands within the project site, including springs, and selecting a practicable alternative that avoids impacts to wetlands, or if no such practicable alternative exists, ensuring all practicable measure to minimize harm are incorporated into the project.

Discharge of dredged or fill material into waters of the United States, including wetlands, is regulated under CWA Section 404. This permit program is administered jointly by the U.S. Army Corps of Engineers (Corps) and the EPA. We recommend USAF consult with the Corps to determine the applicability of CWA Section 404 permit requirements to wetlands that may be impacted in the planning area and to ensure appropriate minimization measures are applied to avoid adverse impacts to wetlands. The EPA's and the Corps' Final Rule for Mitigation for Losses of Aquatic Resources [33 CFR Parts 325 and 332; 40 CFR Part 230 (73 FR 19594, April 10, 2008)] emphasizes the need to avoid and minimize impacts to these "difficult-to-replace" resources and requires that any compensation be provided by in-kind preservation, rehabilitation, or enhancement to the extent practicable. We recommend restoration plans require that soil profiles and hydrology are re-established as much as possible to the original state. In addition, the EPA recommends the USAF consider the Mitigation Rule to protect aquatic resources even when a CWA Section 404 permit is not required.

Erosion and Sediment Load Analysis: Erodible soils may represent a source of pollutants in the planning area. Increased sediment from surface disturbance may degrade water quality in receiving streams and may represent a significant source of pollutants when mobilized by human-caused soil disturbances. Depending on a host of variables including soil characteristics, condition of roads, and associated runoff from development, the proposed project could introduce sediments as well as salts, selenium, heavy metals, nutrients, and other pollutants into surface waters.

Best Management Practices (BMPs) and Monitoring

The EPA recommends that the Draft EA analyze options for avoiding environmental impacts, including impacts to nearby wetland and other water features. BMPs that protect wetlands against short- or long-term impacts can include, but are not limited to, silt fencing or use of a protective buffer areas around essential resources. Effective use of BMPs may help to control flooding, protect water flows, conserve native vegetation and wildlife, and support climate resiliency to land use and development.[1]

(2) Air Quality

Protection of air quality is important to address in the Draft EA. We recommend establishing existing environmental conditions in the proposed project area based on the most current air quality monitoring data. Monitoring data presented as design values is available from EPA's design values webpage.[2] In order to disclose potential impacts from the implementation of the alternative we recommend the EA identify the activities necessary to construct and operate the facilities. Based on the construction activity we recommend identifying equipment that is anticipated to be needed as well as an operating schedule for the equipment. Based on the duration of construction and magnitude of emitting equipment and activities that are anticipated, it may be appropriate to quantify emissions associated with construction. We recommend that the EA disclose operational activities that have the potential to effect air quality, such as commuter trips to and from the site, stationary sources (such as generators), and exposed areas that may be susceptible to wind erosion. If substantial vehicle traffic or other emission sources are anticipated, it may be appropriate to quantify operation emissions in the EA. We are available to assist

[1] *See, e.g.,* Stormwater and Construction BMP Fact sheet https://www3.epa.gov/npdes/pubs/cu_swposter-final-fullsize.pdf
[2] https://www.epa.gov/air-trends/air-quality-design-values

USAF as it plans the appropriate level of analysis. Additionally, we recommend USAF consider opportunities to reduce vehicle emissions as well as road and construction-related dust emissions through application of BMPs such as dust suppression and limited vehicle idling.

(3) Climate change

On January 9, 2023, the Council on Environmental Quality (CEQ) published interim guidance to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews. CEQ developed this guidance in response to E.O. 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.* This interim guidance is effective immediately. CEQ indicated that agencies should use this interim guidance to inform NEPA review for all new proposed projects and may use it for evaluations in process, as agencies deem appropriate, such as informing the considerations of alternatives or helping address comments raised through the public comment process. The EPA recommends the Draft EA apply the interim guidance to ensure robust consideration of potential climate impacts, mitigation, and adaptation issues.

Greenhouse Gas Emissions

The EPA recommends including an estimate of the greenhouse gas (GHG) emissions associated with construction and operation of the proposed Project. Example tools for estimating and quantifying GHG emissions can be found at CEQ's NEPA.gov website.[3] Recognizing that climate impacts are not attributable to any single project, but are exacerbated by a series of smaller decisions, we do not recommend comparing the GHG emissions from a proposed project to global, national, or state emissions, as this approach is limited by the cumulative nature of GHG concentration and the impacts of climate change. Because of these limitations, these comparisons inappropriately minimize the significance of emissions and do not provide meaningful information for a project level analysis.[4]

Changes in Existing Environmental Conditions

The EPA also recommends that the Draft EA describe how the proposed Project and its impacts would be affected by ongoing and foreseeable changes and trends in the affected environment, for instance, under a scenario of continued decreasing precipitation days, changing frequency of intense storms and related flood events, and increasing drought intensity in the project area. The 2022 State Climate Summary for North Dakota indicates an increase in frequency of 2-inch extreme precipitation events.[5] Full consideration of influences from the project setting on the proposed Project may inform necessary design modifications to enhance project resiliency and changes to operational assumptions for determining resource supplies, system demands, system performance requirements, and operational constraints.

[3] CEQ's GHG Guidance: https://ceq.doe.gov/guidance/ghg-tools-and-resources.html
[4] CEQ's GHG Guidance ("[S]uch comparisons and fractions also are not an appropriate method for characterizing the extent of a proposed action's and its alternatives' contributions to climate change because this approach does not reveal anything beyond the nature of the climate change challenge itself—the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect.")
[5] https://statesummaries.ncics.org/chapter/nd/

The US Climate Resilience Toolkit[6] serves as a repository of information related to climate resilience in the U.S., including steps to build resilience, case studies, expertise, and special topic areas, including tools to project future climate scenarios for planning purposes. The EPA's Climate Change Indicators[7] presents a key set of indicators related to the causes and effects of climate change. EPA partners with various government agencies, academic institutions, and other organizations to compile these indicators that are used to understand and track the science and impacts of climate change. We recommend utilizing these tools in the analysis of climate change impacts and for Project planning purposes.

Mitigating Climate Change Effects

Finally, consistent with the goals of E.O. 14008, *Tackling the Climate Crisis at Home and Abroad,* the EPA encourages identifying measures to provide for diverse, healthy ecosystems that are resilient to climate stressors; requiring effective mitigation and encouraging voluntary mitigation to offset the adverse impacts of projects or actions; requiring reduction of greenhouse gas emissions from authorized activities to the lowest practical levels; identifying and protecting areas of potential climate refugia; reducing barriers to plant migration; using pollinator-friendly plant species in restoration and revegetation projects; and designing the project to mitigate potential structural impacts associated with extreme weather events.

(4) Noxious Weeds

Management of noxious weeds is an important issue to address in the EA since these species tend to gain a foothold where there are disturbances to the landscape. We recommend the EA provide information on the current state of invasive species in the Project area and how alternatives may impact distribution and prevalence of invasive species. We further recommend that the EA disclose specific management actions that will address invasive species through prevention, early detection and rapid response, and restoration and rehabilitation. If any herbicides will be used to treat noxious weeds, we recommend disclosing any potential hazards related to the application of the chemicals and describing what actions will be taken to minimize impacts of toxic substances released into the environment.

(5) Hazardous Waste

The EPA recommends that the Draft EA discuss the potential impacts of any hazardous waste, including unexploded ordnance, that could be encountered during construction activities. We recommend the Draft EA evaluate the risk for such encounters and the resulting impact of their occurrence. As part of this discussion, we also recommend that the Draft EA identity possible waste types and their expected storage, disposal, and management. BMPs include storing chemicals for Project activities in closed containers with secondary containment in a specific location, identifying areas and procedures for fueling, and providing a protected vehicle washout. We recommend that any references to standard operating protocols be clearly identified and referenced in the Draft EA.

[6] U.S. Climate Resilience Toolkit, https://toolkit.climate.gov/
[7] U.S. Climate Change Indicators, https://www.epa.gov/climate-indicators

(6) Consideration of Impacts to Rural Communities

Consistent with E.O.s 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government,* and 14008, *Tackling the Climate Crisis at Home and Abroad,* the EPA recommends meaningfully engaging with rural communities and stakeholders to understand their experiences and address their concerns with respect to the potential environmental impacts of the proposed Project and alternatives. Rural communities (including subsistence households) are often more closely linked to ecosystems and their services, making it especially important that people living in such communities have opportunities for input into decision-making about local land use and utilization of natural resources, including how federal actions may affect their access to and management of natural and cultural resources.

Using Accessible Mechanism to Address Systemic Barriers

In 2021, Grand Forks, ND and surrounding areas were identified as having limited broadband access.[8] Limited broadband and media access in rural locations may warrant using various outreach strategies such as email, letter, phone calls and advertising of public meetings in local community venues (e.g., at markets, community centers, and community events). Meaningful engagement can also be fostered by presenting a clear project purpose, adequate information and associated stakes, and holding meetings as early as possible in the NEPA process while continuing to provide information and opportunities for input on an ongoing basis.

Engaging trusted community intermediaries and tailoring engagement to distinct segments of the population can also build trust, as can walking the project area to facilitate mutual understanding of the circumstances and concerns facing rural stakeholders. Potential disconnection of rural communities from largely urban-based political power structures and limited organization and influence over the factors that impact their well-being make such outreach and engagement strategies especially important. We recommend that the Draft EA describe the process and outcome of engagement with rural communities, including how their concerns were addressed in the range of alternatives. As part of this, we recommend that the Draft EA include who was contacted and how.

[8] https://www.ndlegis.gov/files/committees/67-2021/23_5072_02000_87_broadband_assoc_nd.pdf

USDA
United States Department of Agriculture

Natural Resources
Conservation Service

Bismarck State Office
PO Box 1458
Bismarck, ND
58502-1458

Voice 701.530.2000
Fax 855-813-7556

August 8, 2023

Mr. Robert Green
319 CES/CEIEC
25 Tuskegee Airmen Blvd.
Grand Forks AFB, ND 58205

Dear Mr. Green:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated July 28, 2023 concerning the Bird/wildlife Aircraft Strike Hazard Management Program for the Grand Forks AFB in Grand Forks County, North Dakota.

NRCS has assessed your project affects to farmland as defined in Sec. (658.2 a) of the Code of Federal Regulations dealing with the Farmland Protection Policy Act (FPPA). NRCS has a major responsibility with FPPA in documenting conversion of farmland (i.e., Prime, Statewide Importance and/or Local Importance) to non-agricultural use when projects benefit from federal funds. Projects that pertain to national defense purposes or facilities are exempt from FPPA; therefore, no further action is needed.

If you have additional questions pertaining to FPPA, please contact Wade Bott, State Soil Scientist, NRCS, Bismarck, North Dakota at 701-530-2021.

Sincerely,

WADE BOTT Digitally signed by WADE BOTT
Date: 2023.08.08 08:48:32 -05'00'

WADE D. BOTT
State Soil Scientist

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
Phone: (701) 250-4481 Fax: (701) 355-8513

In Reply Refer To:
Project Code: 2023-0093821
Project Name: Grand Forks BASH EA

June 14, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Section 7 of the Endangered Species Act

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The Act requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service *if they determine their project and associated actions "may affect" listed species or critical habitat*. If Federal agencies or their non-federal representatives determine their project and associated actions will have "no effect" on listed species, their habitats, or designated critical habitat, consultation is not required. However, if a "no effect" is determined, we recommend that you maintain a written record in support of your conclusion.

Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act

Additionally, while not all are listed as threatened or endangered, eagles and migratory birds

have protections under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA prohibits take which is defined as, “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” (50 CFR 22.3). Disturb is defined in regulations as, “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”. The MBTA makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds, including eagles. The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs, and nests.

Service Property Interests

As part of the National Wildlife Refuge System, the Service administers fee title Refuge and Waterfowl Production Areas, as well as wetland and grassland easements, throughout North Dakota. For exact locations of Service interest lands, please contact the appropriate Wetland Management Districts (WMD) for guidance regarding FWS easements.

Northwest ND WMD Complex: Kyle Flanery, (701) 768-2548
Eastern ND WMD Complex: Dave Azure, (701) 285-3341
Central ND WMD Complex (also covers south and west): Todd Luke, (701) 442-5474

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

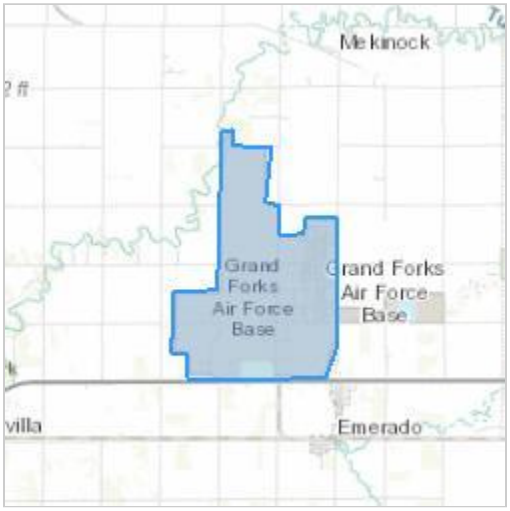
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
(701) 250-4481

PROJECT SUMMARY

Project Code: 2023-0093821
Project Name: Grand Forks BASH EA
Project Type: Military Development
Project Description: The 319 RW at Grand Forks AFB is proposing to reconstruct the ground topography and the natural and manmade water features within the project area totaling 1,291 acres (Figure 2 1). Grand Forks AFB would cultivate airfield vegetation unattractive to wildlife and maintain vegetation height between 7 and 14 inches within the project area to comply with AFI 91-202 and AFI 91-212. Grand Forks AFB intends to remove standing water by regrading the airfield's west ditch (up to 14,000 linear feet), conducting perimeter drainage maintenance, installing up to 35 acres of drain tile, and mitigating wetlands/floodplains. Reconstructing ground topography includes filling, clearing, grubbing, regrading (via heavy-equipment operation), landscaping, cultivating, and re-seeding up to 150 acres of the project area to create both accessibility and functional grounds maintenance operations and unattractive wildlife habitat. The Proposed Action also would include replacement of the Installation's west perimeter fence (22,240 feet of fence line). Fence posts would be driven into the ground to a depth of 8 feet and 10 feet apart, with no digging or trenching required. Seed selection for the project area would include species adapted to the local area, deemed unattractive for wildlife, and that can thrive in the local ecotype withstanding repeated mowing to successfully meet AFI compliance.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@47.9641715,-97.38602660521302,14z



Counties: Grand Forks County, North Dakota

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1Cd
- PEM1Ax
- PEM1Cx
- PEM1A
- PEM1/SS1C
- PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PSS1A
- PFO1C

RIVERINE

- R2UBG
- R4SBCx
- R4SBAx

FRESHWATER POND

- PABFx

OTHER

- Pf

IPAC USER CONTACT INFORMATION

Agency: Air Force
Name: Kevin Groppe
Address: 350 Hills St Ste 112
City: Richland
State: WA
Zip: 99354
Email kevin.groppe@easbio.com
Phone: 2406046869

APPENDIX B.
PUBLIC NOTICES

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Family seeks answers after inmate death in Anoka County jail

BY OLIVIA STEVENS
MPR News

MINNEAPOLIS — The family of a 22-year-old Anoka County inmate who died in jail earlier this month wants to know more about what happened in the moments leading up to his death.

According to a statement from the Anoka County Sheriff's Office, Cristian Rivera-Coba, of Minneapolis, became unresponsive while being attended to by a detention deputy and medical staff on July 21.

"It's shocking — it happened all too fast. We don't have any answers," said Rivera-Coba's older sister, Yessenia. "The way he went just doesn't make sense to us."

Rivera-Coba was booked into jail July 18 and charged with auto theft, fleeing police in a vehicle, and driving under the influence. Charges said he admitted to smoking Percocet pills with fentanyl shortly before he was pulled over.

"The jail and medical staff immediately requested assistance from Allina EMS and began actively administering life saving measures on the inmate," the statement said. "Emergency responders escorted him to a local hospital where he sadly was later declared deceased."

Rivera-Coba's family held a fundraiser Saturday in north Minneapolis to help with funeral costs. They cooked and sold pozole, ceviche and tacos out of their backyard.

They displayed signs of remembrance and a table with photos and family messages for Rivera-Coba. A pair of his shoes and flower bouquets were displayed underneath.

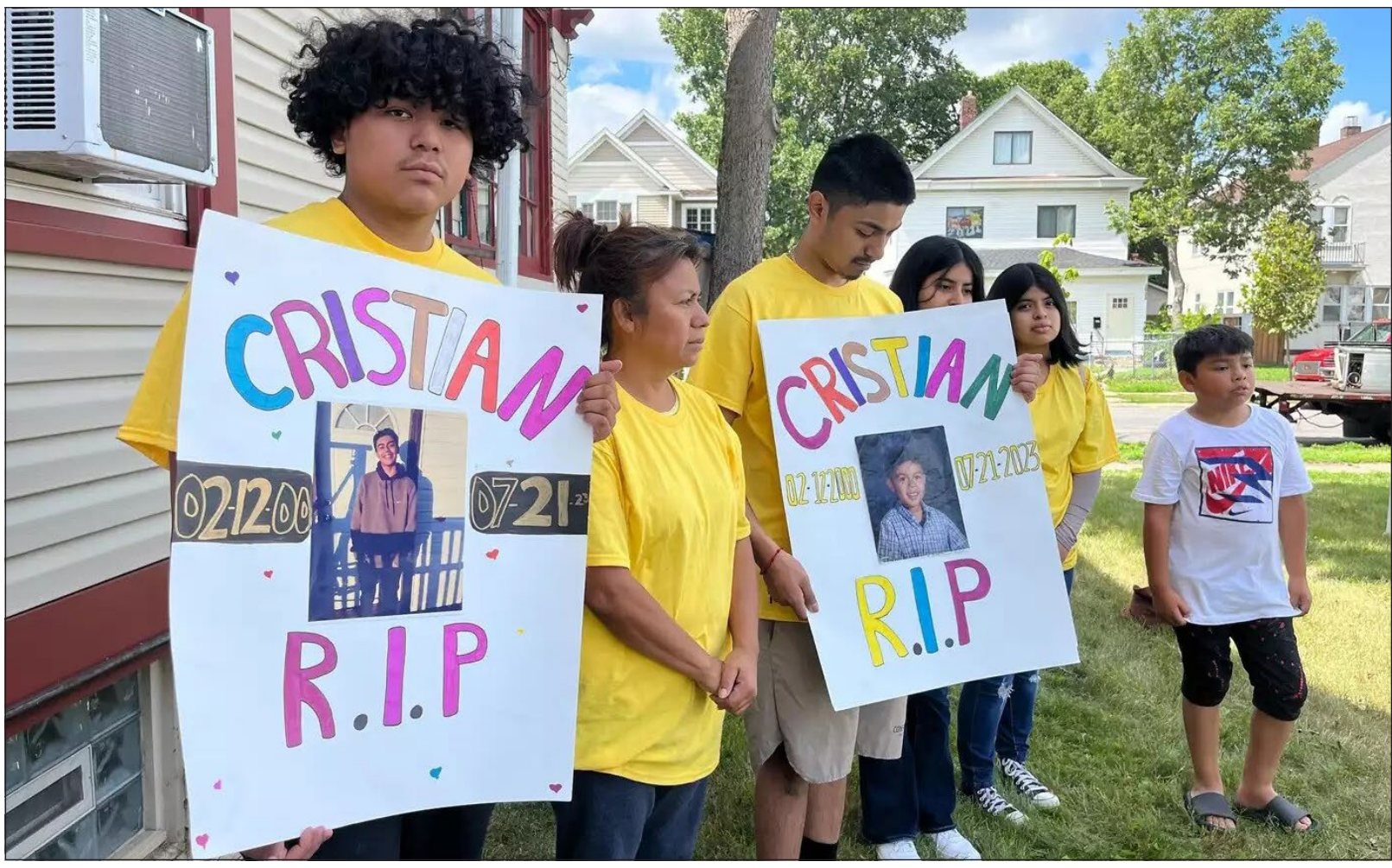
Yessenia and Rivera-Coba's mother, Obdulia Silveria-Coba, remember Rivera-Coba as an honest, open and caring brother and son.

"His smile was very contagious," Yessenia said. "Nothing but laughs from him, all the time."

Silveria-Coba said she doesn't understand why the family hasn't received more information from officials about how Rivera-Coba died. Her interview was translated from Spanish.

"I want them to tell me what happened," she said, choking back tears. "I have many questions for the officials. And I want them to respond to all of them."

The Sherburne County Sheriff's Office is leading the investigation, and the Midwest Medical Examiner's Office will determine the cause of death.



Olivia Stevens / MPR News

The family of Cristian Rivera-Coba display signs remembering him Saturday at a fundraiser. Rivera-Coba died July 21 while in custody at the Anoka County Jail. His death is under investigation.

GUIDANCE

CONTINUED from A1

"Well, we could smell it — but is that going to be enough? That's where we are going to need some guidance from the state and, ultimately, the courts, on what they're going to accept."

Another existing concern that could be compounded by legalization is how to determine whether someone is driving under the influence, according to Norland. When testing for use of any substance other than alcohol, officers currently utilize blood and urine tests, but those can't be done during a traffic stop.

"We've always had our basic testing for alcohol, and for drugs," Norland said. "But now, is there going to be something that will help us a little bit more with testing on the roadside?"

The SoToxa test system, a device being used by law enforcement across the nation, tests a person's oral fluid for drugs, including cannabis. Cannabis remains in a person's system much longer than alcohol, so it's unclear how law enforcement can conclusively determine when a driver is under the influence.

Law enforcement concerns extend across state lines into North Dakota, where cannabis is still illegal unless approved for medical use.

"Without a valid North Dakota medical marijuana card, an individual in possession of marijuana has no protections under the North Dakota medical marijuana laws," Lt. Andrew Stein, of the Grand Forks Police Department, told the Herald.

The GFPD is concerned people who use or possess cannabis products legally might cross state lines, into Grand Forks, where it is no longer legal. Regardless of the person's residency, they could be cited for cannabis possession or use once they're in North Dakota.

An initiative is being explored on the state level to provide North Dakota law enforcement agencies with SoToxa devices.

Moratoriums in East Grand Forks and Polk County

The city of East Grand Forks passed a moratorium in July that delays some elements of cannabis legalization. It will remain prohibited to grow, transport, distribute or sell cannabis products in East Grand Forks. Possession and use, though, will be permitted.

"The moratorium is like pushing pause on the manufacturing and sales end of the new statute," Hedlund said.

The moratorium doesn't apply to the state's medical cannabis program or existing businesses that sell THC products that were approved in earlier legislation — edible and nonedible cannabinoid products with no more than 0.3% of tetrahydrocannabinol.

The moratorium could last up to January of 2025.

Earlier this year, Polk County passed a moratorium of its own, prohibiting THC product sales, testing, manufacturing and distribution.

Manufacture and cultivation are under two different licenses, but the Polk County moratorium only addresses manufacturing.

Cultivation is defined in Minnesota's H.F. 100 as "any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis plants, cannabis flower, hemp plants, or hemp plant parts."

Polk County officials couldn't give a definitive answer on whether cultivation will be permitted under the moratorium. However, East Grand Forks' moratorium specifically prohibits it.

Chuck Whiting, department head at the county's administrative office, said a new ordinance addressing cannabis legalization should be issued sometime later this month.

"Everybody's trying to figure this out right now," Whiting said.

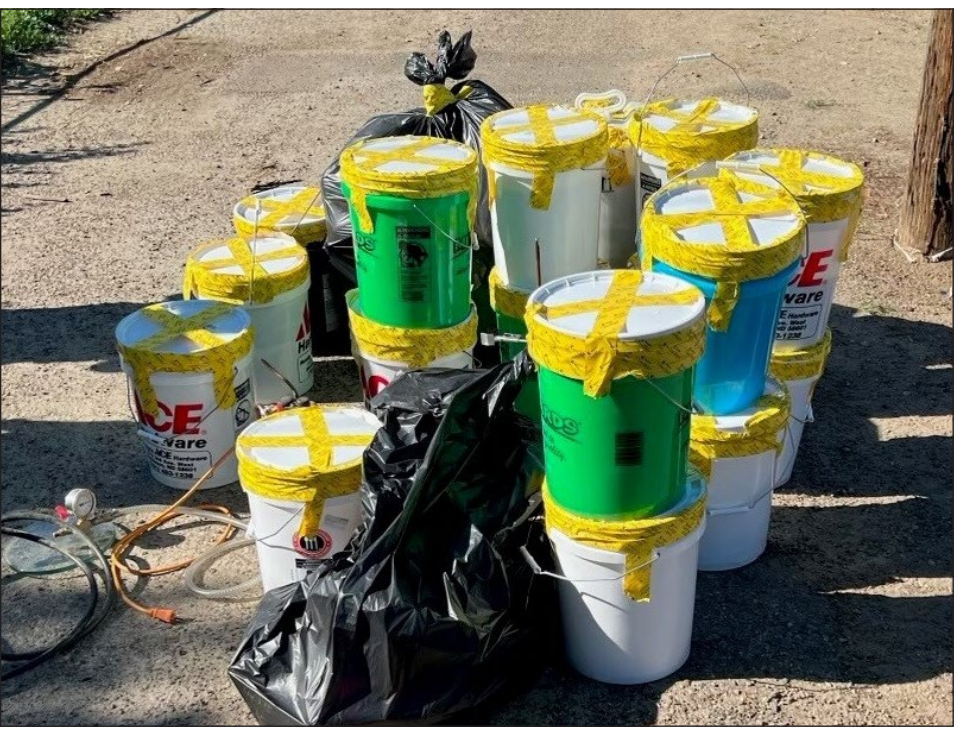


Photo courtesy of Dickinson Police Department

Seized in the Raid: Dickinson Police Department display cache of hazardous materials located and dismantled in a dangerous counter-drug operation.

LAB

CONTINUED from A1

the associated chemical and explosive dangers, was called in to assist in remediation efforts.

The investigation culminated in the arrest of Joshua James Lidberg, 37, who has been charged with several charges in the Southwest Judicial District Court, including manufacturing a controlled substance (methamphetamine — a class B felony), manufacturing a controlled substance (THC — a class C felony), possession of methamphetamine with intent to deliver (50 grams or greater — a class A felony), possession of a controlled substance with intent to deliver (LSD — a class B felony), possession of a controlled substance with intent to deliver (psilocybin — a class B felony), possession of drug paraphernalia to manufacture (methamphetamine — a class C felony), and possession of drug paraphernalia to manufacture (THC — a class C felony).

NOTICE FOR EARLY PUBLIC REVIEW OF PROPOSED ACTIVITIES WITHIN WETLANDS AND FLOODPLAINS – UNITED STATES AIR FORCE

The U.S. Air Force (USAF) is inviting early public input on proposed activities at Grand Forks Air Force Base (AFB) with potential to affect wetlands and floodplains. The USAF is proposing to reconstruct the ground topography and the natural and manmade water features within the Aircraft Movement Area (AMA) plus 500 feet and all areas inside the AFB airfield security fence (hereinafter, "project area"). Grand Forks AFB needs to remove standing water, improve drainage, create unattractive habitat for wildlife, replace the western perimeter fence, control vegetation heights to bring the project area into compliance with the Department of the Air Force Instruction (DAFI) 91-202, The US Air Force Mishap Prevention Program, and DAFI 91-212, Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program.

The scope of the Proposed Action includes construction activities across the project area, to include large-scale modification of landscape topography and hydrologic features, wetlands, structures, and infrastructure to provide adequate access for successful grounds maintenance and operational control functions. Specifically, the Air Force is proposing to resolve standing water and accumulation issues for the project area by improving and tiling problematic drainage areas as well as filling and leveling wetland areas. In addition, the Proposed Action would reconstruct the project area landscape by conducting field regrading and grubbing, replacing the west perimeter fence, and re-seeding with appropriate plant species adapted to local ecotype and unattractive to wildlife that will thrive under required control-of-vegetation height management between 7 and 14 inches.

To comply with the National Environmental Policy Act (NEPA), the USAF is preparing an Environmental Assessment (EA) to analyze the potential environmental impacts of the Proposed Action and Alternative. The Draft EA will be available for public review and comment in the fall of 2023.

Because select projects under consideration at Grand Forks AFB would affect or potentially affect floodplains and wetlands under USAF management, this early notice seeks public input on any practical alternatives to avoid or minimize adverse effects on these natural resources. As the projects are currently in the pre-planning stage, additional details will be made available in the forthcoming Draft EA for public review. The USAF plans to use the NEPA process to comply with Executive Orders (EOs) 11988, Floodplain Management; 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input; and 11990, Protection of Wetlands.

Accordingly, the USAF seeks your input with respect to potential effects on wetlands and floodplains that could result from the Proposed Action and Alternatives at Grand Forks AFB. Public comments received in response to this notice, as well as those received through public participation in the NEPA process currently underway, will assist the USAF to comply with its obligations under the EOs noted above.

The USAF Point of Contact is Mr. Bob Greene. Please send him your comments and concerns to 525 Tuskegee Airmen Blvd, Grand Forks AFB, North Dakota, 58205, or by email at robert.greene.13@us.af.mil.

PRESS

CONTINUED from A1

at the Ness Press.

Since 1998, the newspapers have been printed by Morgan Printing in Grafton, North Dakota, and then transported back to Fordville. They are Aneta Star, Edmore-Adams Herald, Hatton Free Press, McVille Messenger, Nelson County Arena, Larimore Leader/Tribune, Pembina New Era and the Tri-Valley Sun.

Each week, the papers were sorted and prepared for mailing at the Ness Press, mailed from the U.S. Post Office in Fordville every Thursday, and delivered to area subscribers' mailboxes on Fridays. About 25% of the roughly 2,000 subscribers live outside the area or out-of-state.

Local subscribers have been talking with Truman about his decision to cease publication of their newspapers, he said. "They say they're going to miss it."

Dawn Madson, production manager and assistant to the publisher, started working part-time at the Ness Press in 1994.

Madson, of rural Fordville, believes it was difficult for Truman to decide to close the Ness Press,

Eric Hylden / Grand Forks Herald

Ken Ness, a volunteer with the Ness Press, unloads the final batch of newspapers published by the longtime family business, for mailing at the U.S. Post Office in Fordville, ND, on Thursday.

she said, "because he's been in the business for so long." But the advertising revenue and other financial support "wasn't there – it's hard to keep it going."

The subscription rate, which was recently increased, is $30 per year for in-state subscribers and $35 for those who are out-of-state.

The Ness Press has endured for more than 101 years "basically because people liked the local news," Madson said. "Everybody's been saying how much they're going to miss the paper."

They're also asking, "where are we going to find out what's going on?" or "what will we do if we have to put something in the paper?" she said.

"Newspapers are simply 'the glue' that holds communities together," Roger Bailey, former longtime publisher of the Turtle Mountain Star in Rolla, North Dakota, said in an email to the Herald. "Without a newspaper, residents lose the connectivity necessary for growth and interest."

Bailey retired as executive director of the North Dakota Newspaper Association in 2013.

Family tradition

Truman Ness' roots run deep at the Ness Press. In February 1960, he started working with his father, G.K. Ness, and older brother, Gunnard, at the Ness Press, after serving two years in the U.S. Army. He joined the military the fall after earning a bachelor's degree in journalism from UND.

Ken Ness, too, has a long record of commitment to the Ness Press.

"I grew up in the Ness Press," said Ken Ness, 86.

At a young age, probably 10 or 11, Ken – along with his siblings – was enlisted by his father to help prepare the paper for distribution.

"They folded the papers by hand," said Mavis Ness, Ken's wife. "They all had to help out."

Even while he was attending UND, Ken would return to help with the printing operation, and bindery and darkroom work, he said. "The only thing I didn't help out with was computers."

As a longtime employee at the UND Printing Center, he'd take a day off to work at the Ness Press.

The business lasted more than a century, because of Truman Ness' "determination," Ken Ness said.

About Truman's decision to close the business, Ken wouldn't call it an unhappy turn of events, he said. "He didn't have the stamina to run it."

Mavis said, "it was time" to close the doors for the last time and move on.

A legacy of service

Steve Andrist, former owner and publisher of the Crosby Journal and Tioga Tribune in northwestern North Dakota, said the Ness family "has been front and center in keeping rural newspapers alive in small towns in northeastern North Dakota.

"Their efforts and perseverance have been critical to maintaining a sense of community in those towns, bringing current and former residents together to keep their communities vital," Andrist, of Bismarck, wrote in an email to the Herald. He served as executive director of the North Dakota Newspaper Association for seven years, retiring at the end of 2020.

"Speaking as a third-generation community newspaper operator ... I understand the dedication and commitment that the Ness family maintained for the betterment of their family and friends."

Roger Bailey, now of Hudson, Wisconsin, said he was "privileged" to know the Ness family during the course of his career as a fellow publisher for 24 years at Rolla and 13 years as executive director of the NDNA.

Marvin Ness, longtime editor of the Larimore Leader, died July 21, and Gunnard Ness died in March 2020.

"Nobody embodies the role of community publishers and leaders in North Dakota more than Marvin and his brothers Gunnard, Ken and Truman Ness," Bailey said in an email to the Herald. "If you publish a newspaper with a weekly circulation of 133 (McVille Messenger) or circulation of 203 (Hatton Free Press), you're doing it for those communities, not for yourself (or, yourselves, in the case of the Ness brothers).

"Even though it was only Truman Ness who remained at the headquarters in Fordville, all still had their hearts in those eight small-town newspapers," he said.

"We'll never witness it again."

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BILL

CONTINUED from A1

appropriations bills to take care of. Everything comes to a head on Sept. 30, which makes me wonder why they sent everyone home for the whole month."

Armstrong

Hoeven

Armstrong and Sen. John Hoeven, R-N.D., hosted a listening session Tuesday in Leeds.

Hoeven has worked to establish what his office calls a "cattle contract library pilot program," under the Department of Agriculture's Ag Marketing Service. According to Hoeven's office, the library's intent is to provide aggregated contract information — contract terms, conditions and volumes — to help producers get better value for their product.

Hoeven wants the library permanently established in the farm bill.

"This is the perfect time to gather feedback from our ranchers, as we're working both to establish the library as a permanent program in the farm bill and to strengthen the disaster programs our producers rely on during times of severe weather," Hoeven said in a statement sent to the media. "These efforts are all about empowering our ranchers to maintain their operations and access fair and competitive markets."

Last month, Hoeven listed his farm bill priorities, including crop insurance, risk and price loss coverage, transparency in cattle markets, livestock disaster programs, and "ensuring support for U.S. sugar policy."

On Monday, Sen. Kevin Cramer, R-N.D., will host a farm bill discussion along with Sen. John Boozman, R-Arkansas, the ranking member of the Senate Agriculture Committee in Fargo.

Cramer

Earlier this year, the Congressional Budget Office announced the 2023 farm bill might top $1 trillion for the first time ever. The legislation is about much more than just traditional agriculture — commodity programs and insurance, for instance — since it also includes funding geared toward nutrition and food assistance programs. The bill expires every five years and this year expires Sept. 30.

Sen. John Thune, R-S.D., recently spoke on the Senate floor about the farm bill, noting numerous listening sessions he already has attended — even before the August break.

Thune

"I've been gearing up for the 2023 farm bill pretty much since work finished on the last one, and last year I kicked off a series of roundtables with agriculture producers to hear firsthand from farmers and ranchers what they need from this year's bill," he said on July 13. "These formal discussions, along with the many informal conversations I regularly have with farmers and ranchers, have provided me with invaluable feedback. And I'm working on a number of measures for this year's farm bill that reflect the input I've received from South Dakota producers."

Like Armstrong, Thune also said adequate insurance for producers must be a priority.

"One thing that farmers have made clear is the critical role of the farm safety net," he said. "Crop insurance is the cornerstone of the farm safety net, and it needs to be maintained, and, to the extent possible, strengthened in the next farm bill."

During the congressional break, lawmakers are making the rounds and discussing the farm bill with constituents, many hitting farm expos and fairs. U.S. Rep. G.T. Thompson, R-Pennsylvania, for instance, has attended more than 50, according to a recent release from the Minnesota Farmers Union. One was Farmfest, an expansive ag expo in Morgan, Minnesota.

"Without a doubt, the most important part of the farm bill process is to hear from farmers, ranchers, foresters, producers, processors — the people of rural America, like all of you. So we know what's working, what's not, and where you need the most support," Thompson said. "We're ready to trade in our dress shoes for work boots and get this done."

U.S. Rep. Tom Emmer, R-Minnesota, told attendees that this farm bill "is going to be a lift. There is no question, because there are many divisions in our country that exist." He reminded those in the audience that politics shouldn't get in the way of progress.

"Remember," he said, "ag is not about Republicans and Democrats."

Minnesota Republican Rep. Michelle Fischbach also attended, saying she has heard from constituents that crop insurance programs must be paramount as farm bill negotiations continue.

Rep. Angie Craig, D-Minnesota, said "family farms make up the economic engine of Minnesota and of our country."

She added: "We're looking forward to hearing from every single one of you today."

And Rep. Brad Finstad, R-Minnesota, said "the farm bill needs to be written by farmers and for farmers. This has to be a program and a bill that works for each and every one of you."

Finstad thanked Thompson — chairman of the House Agriculture Committee — for coming to Farmfest and listening to the concerns of Minnesota farmers.

He also urged those in attendance to "get back on offense" and tell the story of rural America.

That narrative, he said, needs to be told "a little bit louder and a little bit wider to more of our neighbors and to folks who maybe don't quite understand what we do here in rural America. The farm bill is an opportunity for that to happen."

Tom Rand on Bridge

Question: Last week you showed someone doubling a Stayman bid. You said that was asking partner to lead clubs. How is partner to know it's not just a takeout double asking partner to bid?

Answer: It all depends on whether the opponent's bid is an artificial bid, not meaning that he has the suit that he bid. This recent hand (#15) is also a good example.

	S 8 7 6 5 H K 10 8 3 D 10 9 5 C 7 2	
S A Q 4 H J 7 6 D Q 7 6 3 C 9 5 3		S 10 9 3 H 9 5 D K 9 C A K J 10 8 6
	S K J 2 H A Q 4 2 D A J 4 2 C Q 4	

South	West	North	East
1NT	Pass	2C	Dbl
2H	Pass	Pass	Pass

Since the 2C bid does NOT show clubs (but asks, of course, for a major) East's double then is not takeout, but instead lead-directing. Note that a club lead is best for E-W.

So the artificial bids that you should be ready to double to get partner to lead that suit are:

Stayman
Transfer bids
Responses to Blackwood or Gerber
Western Cue bids
Fourth suit forcing

One other note on the hand above. North (Rolf Paulson) was able to bid Stayman even though he lacked 8 HCP. That occasion arises when you hold both majors AND diamonds, and can afford to Pass whatever suit partner bids. He would have liked one more diamond for the bid, but the odds were good given his cards.

APPENDIX C.
DRAFT WETLANDS MITIGATION PLAN

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DRAFT WETLANDS MITIGATION PLAN

C.1 Regulatory Requirement

Executive Order (EO) 11990, Protection of Wetlands, (May 24, 1977) directs agencies to consider alternatives to avoid adverse effects and incompatible development in wetlands. Federal agencies are to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland and the proposed construction incorporates all possible measures to limit harm to the wetland. Agencies should use economic and environmental data, agency mission statements, and any other pertinent information when deciding whether or not to build in wetlands. EO 11990 directs each agency to provide for early public review of plans for construction in wetlands. In accordance with floodplain management requirements under 24 CFR 55.20, EO 11988 (Floodplain Management) and EO 11990, a Finding of No Practicable Alternative (FONPA) must accompany the Finding of No Significant Impact (FONSI) stating why there are no practicable alternatives to development within or affecting wetland areas. It is Department of Air Force (DAF) policy to avoid constructing new facilities within areas containing wetlands, where practicable. Proposed actions that could impact wetlands, even if the affected area is not within a jurisdictional wetland boundary, require an environmental impact analysis in accordance with NEPA and the USAF Environmental Impact Analysis Process (32 CFR Part 989). The Proposed Action must include all practicable measures to minimize harm to wetlands.

Because there is no practicable alternative for the Grand Forks Air Force Base (AFB) Bird/Wildlife Aircraft Strike Hazard (BASH) project, mitigation is required for potential impacts of the project on wetlands. Due to the location of several project components within existing wetland boundaries, the project cannot avoid directly impacting wetlands. As part of the U.S. Army Corps of Engineers (USACE) permitting process, compensatory mitigation would be provided for the unavoidable loss of jurisdictional wetlands to ensure the project would not result in a net loss of wetlands. Mitigation would be in the form of a purchase of credits from an off-site mitigation bank at a minimum 1:1 ratio.

Design documents showing the extent of impacts to wetlands are not complete, therefore, the acreage of wetlands that would be affected has not been determined. However, based upon the expected impacts to wetlands, it has been determined that a Section 404 Clean Water Act (CWA) permit would be required prior to the commencement of demolition activities. The acquisition of the Section 404 permit would be part of the design and construction process. The Section 404 permit would be obtained prior to any ground-disturbing activities. Mitigation for wetlands impacts would be required. Mitigation could include constructing new wetlands or purchasing wetland credits from an approved wetland bank.

This Mitigation Plan has been completed in accordance with the USACE and Environmental Protection Agency's (EPA) Compensatory Mitigation Final Rule, entitled *Compensatory Mitigation for Losses of Aquatic Resources* (USACE and EPA, 2008) which established a preference hierarchy for compensatory mitigation options.

C.2 Environmental Protection Measures for Wetlands and Other Waters of the United States

Because the project would potentially affect wetlands or other waters of the United States, a sequence of actions has been followed to offset effects, known as the mitigation sequence, to guide mitigation decisions and determine the type and level of mitigation required under the CWA Section 404. The sequence of steps is to avoid, minimize, and compensate, as appropriate. Because effects on wetlands cannot be avoided, they will be minimized. Following minimization, the remaining unavoidable impacts will be compensated. Compensation can include wetland restoration, creation, enhancement, or preservation.

C.3 Avoiding Effects on Wetlands or Other Waters of the United States

Avoidance of effects on wetlands or other waters of the United States results in the least environmental effect on these resources. Avoidance can be most effective through project design that sites a project in an area that would result in no direct or indirect effects on wetlands or other waters of the United States. In addition to avoidance through design, effects could be avoided by flagging the boundary of a wetland or water of the United States to delineate areas to avoid, and ensuring construction vehicles and workers remain outside of the flagged boundary.

Because the purpose of the Proposed Action is to reconstruct the ground topography and the natural and manmade water features within the project area to comply with BASH requirements, complete avoidance of wetlands is not possible. Many of the project activities, including regrading the airfield's west ditch (up to 14,000 linear feet), conducting perimeter drainage maintenance, and installing up to 35 acres of drain tile would potentially affect wetlands.

[*Preparers Note: After information is available, a description of how wetlands have been avoided to the extent possible during siting and design to be added.*]

C.4 Minimizing Effects on Wetlands or Other Waters of the United States

Because impacts cannot be completely avoided, reduction of effects is evaluated based on the type and extent of the impact on wetlands or waters of the United States. Indirect effects could occur on wetlands or other waters of the United States that are in proximity to proposed project activities. Implementing the following construction and natural resources controls, where appropriate, would minimize potential indirect effects on wetlands and other waters of the United States that are adjacent to proposed activities. These practices include construction controls and natural resources controls.

C.4.1 *Construction Controls*

- Wetlands and other waters of the United States would be clearly flagged prior to the commencement of construction activities. This would prevent construction workers from entering these wetlands and potentially placing fill material within the wetlands or trampling wetland vegetation.
- Construction activities would be phased, if logically possible, so that smaller areas of land are disturbed at one period of time. This would result in less soil being exposed at one time and would reduce the potential for erosion and deposition of sediment into wetlands or other waters of the United States.

- Water quality-control features such as sedimentation basins and detention or retention ponds, if part of the design, would be installed as applicable prior to initiation of construction activities. Temporary basins and silt traps would be constructed as necessary to contain sediment and runoff on the construction area. Hay bales and silt fences would be used to minimize transport of sediments off of the project area.
- All fuels and other potentially hazardous materials would be contained and stored appropriately. In the event of a spill, procedures outlined in the installation's Spill Prevention, Control, and Countermeasure Plan (SPCC) would be followed to quickly contain and clean up a spill.
- An erosion and sediment control plan, typically part of the Stormwater Pollution Prevention Plan (SWPPP) and directed by the installation Stormwater Program Manager, would be developed prior to initiation of construction activities, and adhered to during development.
- Erosion-control structures, if required in the SWPPP, would be installed downgradient of the construction site in sloped areas adjacent to wetlands and other water bodies. The structures would be regularly maintained and removed once vegetation has been reestablished. All stormwater controls will be approved through the installation Stormwater Program Manager.
- Site grading would be conducted in a manner that would direct stormwater runoff generated from construction activities away from nearby wetlands or waters of the United States, but existing drainage patterns and hydrology should be maintained. Best management practices such as installation of silt fencing along wetland buffers would aid in prevention of siltation if natural site hydrology directs stormwater runoff to the wetlands.
- Avoid transport and crossing actions through wetlands at all times. When crossing wetlands is unavoidable, access paths would be placed along high ground with appropriate mats, docks, or boardwalks as applicable, rather than filling a wetland to simply cover it. Stormwater runoff originating from the construction site should be diverted and sedimentation controls implemented to avoid discharging into the wetland.
- When wetland crossings cannot be avoided, the use of heavy machinery in wetlands would be minimized by installing construction barriers at the edge of the proposed disturbance area.
- Construction activities would be restricted to drier periods during the year, if logically possible. Minimum flows for Turtle River occur in January and February; however, work in the winter would be impossible for the project. It is recommended that project work be conducted during the fall.
- Construction debris would not be disposed of in wetlands. Debris and waste would be disposed of in accordance with all local, state, and federal laws.

C.4.2 *Natural Resources Controls*

- A SWPPP would be developed and implemented to prevent surface water degradation of wetlands within close proximity of project sites.
- Stormwater runoff originating from impervious surfaces would be routed through stormwater treatment facilities prior to discharging into surface waters. Existing drainageways would be preserved if practicable. Water would not be diverted away from or towards wetlands and other waters of the United States. This aids in maintaining existing hydrology patterns. All stormwater controls are approved by the Installation Stormwater Program Manager.
- A buffer surrounding wetlands and waters of the United States would be established on wetlands identified at Grand Forks AFB. Buffers reduce adverse effects of development, mainly in relation to slope and vegetative cover. Maintaining dense shrubs or forested vegetation in areas with steep slopes provides the greatest protection from polluted runoff. In addition, buffer effectiveness increases with buffer width. As buffer width increases, so does the effectiveness of removing sediments, nutrients, bacteria, and other pollutants from surface water runoff.
- Removal of vegetation would be minimized. In areas where excavation is not proposed but vegetation removal is necessary, vegetation would be cut at ground level, leaving roots intact. Disturbed areas would be seeded, sodded, or planted with indigenous material as soon as possible after construction activities are completed, as appropriate.
- The spread of noxious weeds can be controlled by avoiding activities in or adjacent to heavily infested areas, removing seed sources and propagules from the site prior to conducting activities or limiting operations to nonseed-producing seasons. Following activities that expose the soil, mitigation can be achieved by covering the area with weed-seed-free mulch or by seeding the area with native species. Soil would be covered to reduce the germination of weed seeds, maintain soil moisture, and minimize erosion.

C.5 Compensatory Mitigation

Following avoidance and minimization, the remaining unavoidable impacts would be compensated. Compensation can include wetland restoration, creation, enhancement, or preservation. Compensation can be provided via any of the following options:

- Mitigation Bank credits, which are typically completed in advance of permitted impacts;
- In-lieu Fee Program credits (often involving large, more ecologically valuable compensatory mitigation projects as compared to permittee-responsible mitigation); or
- Permittee-responsible Mitigation.

The USACE maintains a Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) website that tracks available in-lieu fee programs by state (USACE, 2023). A search of this website showed two options in Grand Forks County, North Dakota: the Mekinock Site, a private commercial mitigation bank, and the Thompson Site, which is administered by Ducks Unlimited, a private nonprofit organization. The credit classification for both sites is Prairie Pothole wetlands.

C.6 Design and Permitting Phase

A more detailed analysis for avoidance and minimization of effects would be conducted after a FONSI/FONPA (if appropriate) is signed, and prior to submitting necessary permit applications for direct wetland impacts. Since direct effects cannot be avoided, correspondence with regulatory and resource agencies regarding mitigation will commence, and a permit application will be submitted. Additional specifications would be developed as appropriate. The final specifications could include specific minimization techniques and the development of management plans for stormwater runoff, vegetation, and grading.

References

U.S. Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). 2008. *Compensatory Mitigation for Losses of Aquatic Resources*. USACE 33 CFR Parts 325 and 332 and EPA 40 CFR Part 230. 10 April 2008.

USACE. 2023. Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) – search results for Grand Forks County, North Dakota. Accessed on 1 May 2023 at <https://ribits.ops.usace.army.mil/ords/f?p=107:2:667292370864::NO>.

APPENDIX D.
AIR QUALITY ANALYSIS RESOURCES, METHODOLOGIES, AND RECORD OF CONFORMITY APPLICABILITY

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Appendix D-1

Air Conformity Applicability Analysis

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D.1 AIR QUALITY

This appendix presents an overview of the Clean Air Act (CAA) and the relevant North Dakota Department of Environmental Quality (NDDEQ) Division of Air Quality requirements. It also presents calculations, including the assumptions used for the air quality analyses presented in the Air Quality sections of this Environmental Assessment.

D.1.1 Air Quality Program Overview

To protect public health and welfare, the United States Environmental Protection Agency (USEPA) has developed numerical concentration-based standards, or National Ambient Air Quality Standards (NAAQS), for six "criteria" pollutants (based on health-related criteria) under the provisions of the CAA Amendments of 1970. There are two kinds of NAAQS: Primary and Secondary standards. Primary standards prescribe the maximum permissible concentration in the ambient air to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards prescribe the maximum concentration or level of air quality required to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings (40 Code of Federal Regulations [CFR] Part 50).

The CAA gives states the authority to establish air quality rules and regulations. These rules and regulations must be equivalent to, or more stringent than, the federal program. In North Dakota, the North Dakota Department of Environmental Quality (NDDEQ) oversees the state's air pollution control program under the authority of the federal CAA and amendments, federal regulations, and state laws. North Dakota has adopted the federal NAAQS as shown in **Table D-1**.

Based on measured ambient air pollutant concentrations, the USEPA designates areas of the United States as having air quality better than (attainment) the NAAQS, worse than (nonattainment) the NAAQS, and unclassifiable. The areas that cannot be classified (on the basis of available information) as meeting or not meeting the NAAQS for a particular pollutant are "unclassifiable" and are treated as attainment until proven otherwise. Attainment areas can be further classified as "maintenance" areas, which are areas previously classified as nonattainment but where air pollutant concentrations have been successfully reduced to below the standard. Maintenance areas are under special maintenance plans and must operate under some of the nonattainment area plans to ensure compliance with the NAAQS.

Section 176(c) (1) of the CAA contains legislation that ensures federal activities conform to relevant State Implementation Plans (SIPs) and thus do not hamper local efforts to control air pollution. Conformity to a SIP is defined as conformity to a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. As such, a general conformity analysis is required for areas of nonattainment or maintenance where a federal action is proposed.

The action can be shown to conform by demonstrating that the total direct and indirect emissions are below the *de minimis* levels (**Table D-2**), and/or showing that the Proposed Action emissions are within the State- or Tribe-approved budget of the facility as part of the SIP or Tribal Implementation Plan (USEPA, 2010). A conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of that pollutant equal or exceed its *de minimis* rates (40 CFR § 93.153).

Direct emissions are those that occur as a direct result of the action. For example, emissions from new equipment that are a permanent component of the completed action (e.g., boilers, heaters, generators, paint booths) are considered direct emissions. Indirect emissions are those that occur at a later time or at a distance from the Proposed Action. For example, increased vehicular/commuter traffic because of the action is considered an indirect emission. Construction emissions must also be considered. For example, the emissions from vehicles and equipment used to clear and grade building sites, build new buildings, and construct new roads must be evaluated. These types of emissions are considered direct.

Table D-1
National Ambient Air Quality Standards

Pollutant	Standard Value7		Standard Type
Carbon Monoxide (CO)			
8-hour average	9 ppm	(10 mg/m^3)	Primary
1-hour average	35 ppm	(40 mg/m^3)	Primary
Nitrogen Dioxide (NO_2)			
Annual arithmetic mean	0.053 ppm	(100 µg/m^3)	Primary and Secondary
1-hour average[1]	0.100 ppm	(188 µg/m^3)	Primary
2015 Ozone (O_3)			
8-hour average[2,3]	0.070 ppm	(137 µg/m^3)	Primary and Secondary
2008 Ozone (O_3)			
8-hour average	0.075 ppm	-	Primary and Secondary
1997 Ozone (O_3)			
8-hour average	0.08 ppm	-	Primary and Secondary
Lead (Pb)			
3-month average[4]		0.15 µg/m^3	Primary and Secondary
Particulate ≤10 Micrometers (PM_{10})			
24-hour average[5]		150 µg/m^3	Primary and Secondary
Particulate ≤2.5 Micrometers ($PM_{2.5}$)			
Annual arithmetic mean[5]		12 µg/m^3	Primary
Annual arithmetic mean[5]		15 µg/m^3	Secondary
24-hour average[5]		35 µg/m^3	Primary and Secondary
Sulfur Dioxide (SO_2)			
1-hour average[6]	0.075 ppm	(196 µg/m^3)	Primary
3-hour average[6]	0.5 ppm	(1,300 µg/m^3)	Secondary

Source: USEPA, 2018, 2020a

Notes:
1 In February 2010, the USEPA established a new 1-hour standard for NO_2 at a level of 0.100 ppm, based on the 3-year average of the 98th percentile of the yearly distribution concentration, to supplement the then-existing annual standard.
2 In October 2015, the USEPA revised the level of the 8-hour standard to 0.070 ppm, based on the annual 4th highest daily maximum concentration, averaged over 3 years; the regulation became effective on 28 December 2015. The previous (2008) standard of 0.075 ppm remains in effect for some areas. A 1-hour standard no longer exists.
3 Annual fourth-highest daily maximum 8-hour average concentration, averaged over 3 years.4. In November 2008, USEPA revised the primary lead standard to 0.15 µg/m^3. USEPA revised the averaging time to a rolling 3-month average.
5 In October 2006, USEPA revised the level of the 24-hour $PM_{2.5}$ standard to 35 µg/m^3 and retained the level of the annual $PM_{2.5}$ standard at 15 µg/m^3. In 2012, USEPA split standards for primary and secondary annual $PM_{2.5}$. All are averaged over 3 years, with the 24-hour average determined at the 98th percentile for the 24-hour standard. USEPA retained the 24-hour primary standard and revoked the annual primary standard for PM_{10}.
6 In 2012, the USEPA retained a secondary 3-hour standard, which is not to be exceeded more than once per year. In June 2010, USEPA established a new 1-hour SO_2 standard at a level of 75 ppb, based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations.
7 Parenthetical value is an approximately equivalent concentration for NO_2, O_3, and SO_2.

µg/m^3 = microgram(s) per cubic meter; mg/m^3 = milligram(s) per cubic meter; ppb = part(s) per billion; ppm = part(s) per million; USEPA = United States Environmental Protection Agency

Table D-2
General Conformity Rule *De minimis* Emission Thresholds

Pollutant	Attainment Classification	Tons per year
Ozone (VOC and NO_x)	Serious nonattainment	50
	Severe nonattainment	25
	Extreme nonattainment	10
	Other areas outside an ozone transport region (applicable to all three airfield alternatives)	100
Ozone (NO_x)	Marginal and moderate nonattainment inside an ozone transport region	100
	Maintenance	100
Ozone (VOC)	Marginal and moderate nonattainment inside an ozone transport region	50
	Maintenance within an ozone transport region	50
	Maintenance outside an ozone transport region	100
Carbon Monoxide, SO_2 and NO_2	All nonattainment and maintenance	100
PM_{10}	Serious nonattainment	70
	Moderate nonattainment and maintenance	100
$PM_{2.5}$ Direct emissions, SO_2, NO_x , VOC, and ammonia	All nonattainment and maintenance	100
Lead	All nonattainment and maintenance	25

Source: USEPA, 2020b

NO_2 = nitrogen dioxide; NO_x = nitrogen oxides; $PM_{2.5}$ = particulates equal to or less than 2.5 microns in diameter; PM_{10} = particulates equal to or less than 10 microns in diameter; SO_2 = sulfur dioxide; VOC = volatile organic compound

Each state is required to develop a SIP that sets forth how CAA provisions will be imposed within the state. The SIP is the primary means for the implementation, maintenance, and enforcement of the measures needed to attain and maintain the NAAQS within each state and includes control measures, emissions limitations, and other provisions required to attain and maintain the ambient air quality standards. The purpose of the SIP is twofold. First, it must provide a control strategy that will result in the attainment and maintenance of the NAAQS. Second, it must demonstrate that progress is being made in attaining the standards in each nonattainment area.

The NDDEQ operates and maintains an ambient air monitoring network that uses the methods and procedures approved by the USEPA. The purpose is to monitor, assess, and provide information on statewide ambient air quality conditions and trends as specified by the state and federal CAA. The Air Quality Monitoring Program works in conjunction with local air pollution agencies and some industries, measuring air quality throughout the state.

The air quality monitoring network is used to identify areas where the ambient air quality standards are being violated and plans are needed to reduce pollutant concentration levels to be in attainment with the standards. Also included are areas where the ambient standards are being met, but plans are necessary to ensure maintenance of acceptable levels of air quality in the face of anticipated population or industrial growth.

The USEPA has specific requirements for a minimum number of monitoring sites, known as National Air Monitoring Sites. NDDEQ has augmented these with additional sites, called State and Local Air Monitoring Sites, to provide additional air quality data for NDDEQ needs. Locations of these monitoring sites are determined by factors such as emissions sources, population density, permitting needs, modeling results, and site accessibility.

The result of this attainment/maintenance analysis is the development of local and statewide strategies for controlling emissions of criteria air pollutants from stationary and mobile sources. The first step in this process is the annual compilation of the ambient air monitoring results, and the second step is the analysis of the monitoring data for general air quality, exceedances of air quality standards, and pollutant trends.

Under the CAA new stationary emissions sources are subject to New Source Review (NSR) in order to obtain a construction permit. Permits are required for new major sources or sources making major modifications. In areas that meet the National Ambient Air Quality Standards the permits are referred to as Prevention of Significant Deterioration (PSD) permits and the process to obtain permit approval is called PSD review. In nonattainment areas the permitting process is referred to as nonattainment NSR. The purpose of PSD review is to ensure that sources are constructed without causing significant adverse deterioration to clean air in the area. The purpose of nonattainment NSR is to ensure new sources do not impede a region's progress to achieve compliance with NAAQS through the use of emission control technology and by offsetting the emission increases.

D.1.2 Air Emissions Calculations and Assumptions

This section includes a discussion of calculations performed for the air quality analyses presented in the Air Quality sections of this Environmental Assessment.

The Air Conformity Applicability Model (ACAM), developed by the Air Force Civil Engineering Center was used to estimate air emissions. Calculations were performed for the single proposed alternative comprising four separate elements: reconstruction of ground topography, regrading of airfield's west ditch for drainage improvement, drainage system redesign, and perimeter fence replacement.

A Record of Air Analysis (ROAA), and the detailed ACAM Report for the Proposed Action is included as sections C-2 and C-3 of this Appendix. Each detailed ACAM report includes a general description of the project, the calculations used to estimate emissions, and timeline assumptions made for each construction and demolition phase of the project as well as ongoing emissions once the project is completed. Grand Forks AFB is in Grand Forks County, which is designated attainment or unclassifiable for all criteria pollutants. Accordingly, a conformity analysis is not required.

Key ACAM input data assumptions and notes are provided, as follows:

- The start date for the Proposed Action construction activities is assumed to be April 1, 2024. The duration of the construction project has been indicated to be 214 days (15 April - 15 November). To be conservative, all construction was assumed to occur within the duration period, as indicated. This would likely not be the case.
- The DOPAA and air emissions input data provided by the installation served as the primary source for all construction assumptions. Construction phase emissions for the Proposed Project are included for grading and trenching.
- Operational emissions were not assumed to be a factor as the Proposed Action projects would comprise of improvements or replacements of existing features and would not be adding any stationary emissions sources.
- Typically, duration of construction phase activities in ACAM was estimated based on the project size.
- For projects associated with reconstruction of ground topography, drainage system redesign, and perimeter fence replacement, the default equipment list in ACAM was changed to include additional types of equipment that would be more representative of the types of activities that are proposed.

Type of off-road equipment for construction of new fences, construction of drainage system, and for landscaping projects was based on data contained in the *ACRP Project 02-33 Airport Construction Emissions* – Final Report, dated September 10, 2013 (ACRP02-33_FR.pdf).

- For grading area, the site clearance area, as provided by the installation is assumed. If data on the amount of material hauled in and hauled out (in cubic yards) was provided by the base, then it was used in ACAM.
- Emissions from personnel commute is not performed as no new personnel will be working at the new facilities upon completion of construction of this project.
- ACAM defaults were used in lieu of base-specific data, where possible.

D.2 REFERENCES

USEPA. 2010. *40 CFR Parts 51 and 93, Revisions to the General Conformity Regulations*. 75 FR 14283, EPA-HQ-OAR-2006-0669; FRL-9131-7. 24 March.

USEPA. 2018. NAAQS Table. <https://www.epa.gov/ground-level-ozone-pollution/table-historical-ozone-national-ambient-air-quality-standards-naaqs>. 20 February.

USEPA. 2020a. *NAAQS Table*. <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. 07 March.

USEPA. 2020b. *General Conformity: De minimis Tables*. <https://www.epa.gov/general-conformity/de-minimis-tables>. 07 March.

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Appendix D-2

Detailed Air Conformity Applicability Model Report

Airfield BASH Mitigation EA
Grand Forks AFB, North Dakota

(For General Conformity Applicability Determination and National Environmental Policy Act Air Quality Assessment)

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1. General Information

- Action Location
Base: GRAND FORKS AFB
State: North Dakota
County(s): Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Airfield BASH Mitigation EA, Grand Forks AFB, North Dakota

- Project Number/s (if applicable): N/A

- Projected Action Start Date: 4 / 2024

- Action Purpose and Need:
The purpose of the Proposed Action is to improve ground maintenance accessibility and operations. Vegetative cover within the project area must be maintained at a height between 7 and 14 inches and be converted to locally adapted vegetation species deemed unattractive to birds and other wildlife. The Proposed Action also includes replacement of the Installation's west perimeter fence.

Grand Forks AFB needs to remove standing water, improve drainage, create unattractive habitat for wildlife, replace the western perimeter fence, control vegetation heights to bring the project area into compliance with AFI 91-202, The US Air Force Mishap Prevention Program, and AFI 91-212.

- Action Description:
Grand Forks AFB intends to remove standing water by regrading the airfield's west ditch (up to 14,000 linear feet), conducting perimeter drainage maintenance, installing up to 35 acres of drain tile, and mitigating wetlands/floodplains. The proposed action also includes reconstructing ground topography including filling, clearing, grubbing, regrading (via heavy-equipment operation), landscaping, cultivating, and re-seeding up to 150 acres of the project area and replacement of the Installation's west perimeter fence. (22,240 feet of fence line). Fence posts would be driven into the ground to a depth of 8 feet and 10 feet apart, with no digging or trenching required.

ACAM is performed for the Proposed Action comprising of separate projects: reconstructing ground topography, regrading, and drainage system redesign and fence replacement.

- Point of Contact
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Inc
Email: rnarayanan@versar.com
Phone Number:

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Reconstructing Ground Topography - Proposed Action Alternative 1
3.	Construction / Demolition	Regrading Airfield West Ditch- Alternative 1
4.	Construction / Demolition	Redesign the Drainage System - Alternative 1
5.	Construction / Demolition	Fence Replacement - Alternative 1

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location
County: Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Reconstructing Ground Topography - Proposed Action Alternative 1

- Activity Description:
The goal of the reconstruction of the project area is to create both accessibility and functional grounds maintenance operations and unattractive wildlife habitat.

- Reconstructing Ground Topography involves the following activities: Filling, clearing, grubbing, regrading (via heavy-equipment operation), landscaping, cultivating, and re-seeding.
- Maximum area of the project area to be reconstructed: 150 acres (approx. 6,534,000 square feet)
- Maximum aquanity of fill material that will be brought onto site for reconstruction: 75,000 cubic feet
- To be conservative, assumed grading activity for emissions estimation from landscaping, grubbing, or other ground topography reconstruction activities. It is not anticipated that this project will involve only grading for the entire duration of the activity.
- The Off Road Equipment list in ACAM for this activity has been edited to include project-specific equipment.
- Number of hours for each equipment that has been added in ACAM is always assumed to be 8 hours a day.

- Activity Start Date
Start Month: 4
Start Month: 2024

- Activity End Date
Indefinite: False
End Month: 6
End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.342879
SO_x	0.006117
NO_x	1.911360
CO	1.859242
PM 10	65.070700

Pollutant	Total Emissions (TONs)
PM 2.5	0.070623
Pb	0.000000
NH_3	0.000666
CO_2e	607.3

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 4
Start Quarter: 2
Start Year: 2024

- Phase Duration
Number of Month: 2
Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 6534000
Amount of Material to be Hauled On-Site (yd^3): 2778
Amount of Material to be Hauled Off-Site (yd^3): 0

- Site Grading Default Settings
Default Settings Used: No
Average Day(s) worked per week: 5

- Construction Exhaust

Equipment Name	Number Of Equipment	Hours Per Day
Aerial Lifts Composite	1	8
Dumpers/Tenders Composite	3	8
Graders Composite	2	8
Off-Highway Trucks Composite	7	8
Other Construction Equipment Composite	2	8
Other General Industrial Equipmen Composite	4	8
Other Material Handling Equipment Composite	4	8
Rollers Composite	2	8
Rubber Tired Dozers Composite	5	8
Scrapers Composite	6	8
Skid Steer Loaders Composite	1	8
Sweepers/Scrubbers Composite	1	8
Tractors/Loaders/Backhoes Composite	4	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20
Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

Aerial Lifts Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0195	0.0003	0.1441	0.1651	0.0054	0.0054	0.0017	34.765
Dumpers/Tenders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0091	0.0001	0.0581	0.0313	0.0021	0.0021	0.0008	7.6451
Graders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Off-Highway Trucks Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1188	0.0026	0.5286	0.5400	0.0163	0.0163	0.0107	260.33
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Other General Industrial Equipmen Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0784	0.0016	0.4362	0.4445	0.0151	0.0151	0.0070	152.41
Other Material Handling Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0732	0.0015	0.4243	0.4361	0.0145	0.0145	0.0066	141.35
Rollers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0434	0.0007	0.2707	0.3772	0.0139	0.0139	0.0039	67.130
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Scrapers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1564	0.0026	0.9241	0.7301	0.0368	0.0368	0.0141	262.83
Skid Steer Loaders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0190	0.0003	0.1389	0.2106	0.0022	0.0022	0.0017	30.317
Sweepers/Scrubbers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0434	0.0009	0.2456	0.4846	0.0076	0.0076	0.0039	78.641
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**Pb**	**NH_3**	**CO_2e**
LDGV	000.373	000.002	000.252	003.923	000.012	000.011		000.022	00315.355
LDGT	000.429	000.003	000.424	005.101	000.015	000.013		000.024	00405.567
HDGV	000.684	000.005	001.035	014.684	000.031	000.028		000.044	00739.043
LDDV	000.149	000.003	000.137	002.337	000.004	000.004		000.008	00301.750
LDDT	000.278	000.004	000.383	003.938	000.007	000.006		000.008	00428.704
HDDV	000.570	000.013	005.533	001.873	000.166	000.153		000.029	01470.692
MC	002.160	000.003	000.840	013.926	000.029	000.026		000.055	00399.677

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase
$PM10_{FD}$ = (20 * ACRE * WD) / 2000

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
VMT_{VE} = (HA_{OnSite} + $HA_{OffSite}$) * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
VMT_{WT} = WD * WT * 1.25 * NE

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location
County: Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Regrading Airfield West Ditch- Alternative 1

- Activity Description:
Grand Forks AFB intends to remove standing water by regrading the airfield west ditch.
Grading: Maximum area to be regraded is 420,000 square feet.
Maximum quantity of material that will be taken offsite is 40,000 cubic feet (1,481.5 CY)

- Activity Start Date
Start Month: 4
Start Month: 2024

- Activity End Date
Indefinite: False
End Month: 5
End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.042041
SO_x	0.000760
NO_x	0.236728
CO	0.298162
PM 10	4.187174

Pollutant	Total Emissions (TONs)
PM 2.5	0.009001
Pb	0.000000
NH_3	0.000144
CO_2e	74.6

3.1 Site Grading Phase

3.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 4
Start Quarter: 2
Start Year: 2024

- Phase Duration
Number of Month: 1
Number of Days: 0

3.1.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 420000
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 1481.5

- Site Grading Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Excavators Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0584	0.0013	0.2523	0.5090	0.0100	0.0100	0.0052	119.71
Graders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.373	000.002	000.252	003.923	000.012	000.011		000.022	00315.355
LDGT	000.429	000.003	000.424	005.101	000.015	000.013		000.024	00405.567
HDGV	000.684	000.005	001.035	014.684	000.031	000.028		000.044	00739.043
LDDV	000.149	000.003	000.137	002.337	000.004	000.004		000.008	00301.750
LDDT	000.278	000.004	000.383	003.938	000.007	000.006		000.008	00428.704
HDDV	000.570	000.013	005.533	001.873	000.166	000.153		000.029	01470.692
MC	002.160	000.003	000.840	013.926	000.029	000.026		000.055	00399.677

3.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase
$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

4. Construction / Demolition

4.1 General Information & Timeline Assumptions

- Activity Location
County: Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Redesign the Drainage System - Alternative 1

- Activity Description:
The project would involve the installation of drain tile to remove stagnant water and would generally involve the following construction activities: trenching/excavation for pipe installation, hydroseeding, soil erosion/sediment control and top soil placement.

- Maximum area of the drain tile project for tile installation: 35 acres (approx. 1,525,000 square feet)
- Maximum quanity of fill material to be brought onto site for project: 16,000 cubic feet (approx. 592.59 CY)
- Assumed trenching/excavation activity in ACAM for emissions estimation from drain tile installation project.
- The Off Road Equipment list in ACAM for this activity has been edited to include project-specific equipment.
- Number of hours for each equipment that has been added or edited in ACAM is always assumed to be 8 hours a day.

- Activity Start Date
Start Month: 7
Start Month: 2024

- Activity End Date
Indefinite: False
End Month: 8
End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.202166
SO_x	0.003796
NO_x	1.064412
CO	1.195953
PM 10	22.710926

Pollutant	Total Emissions (TONs)
PM 2.5	0.038278
Pb	0.000000
NH_3	0.000429
CO_2e	371.4

4.1 Trenching/Excavating Phase

4.1.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date
Start Month: 7
Start Quarter: 2
Start Year: 2024

- Phase Duration
Number of Month: 1
Number of Days: 15

4.1.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information
Area of Site to be Trenched/Excavated (ft^2): 1525000
Amount of Material to be Hauled On-Site (yd^3): 592.59
Amount of Material to be Hauled Off-Site (yd^3): 0

- Trenching Default Settings
Default Settings Used: No
Average Day(s) worked per week: 5

- Construction Exhaust

Equipment Name	Number Of Equipment	Hours Per Day
Dumpers/Tenders Composite	2	8
Excavators Composite	3	8
Off-Highway Trucks Composite	4	8
Other General Industrial Equipmen Composite	3	8
Other Material Handling Equipment Composite	1	8
Pumps Composite	1	8
Rollers Composite	1	8
Rubber Tired Dozers Composite	2	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20
Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

4.1.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.709	000.007	000.685	006.214	000.025	000.022		000.033	00360.544
LDGT	000.864	000.010	001.162	008.954	000.026	000.023		000.034	00480.581
HDGV	001.279	000.015	002.987	025.004	000.058	000.051		000.044	00741.969
LDDV	000.290	000.003	000.322	003.307	000.006	000.006		000.008	00362.930
LDDT	000.577	000.005	000.853	006.657	000.008	000.007		000.008	00565.948
HDDV	000.925	000.014	009.475	002.915	000.364	000.335		000.030	01550.284
MC	002.262	000.008	000.864	015.679	000.031	000.028		000.051	00398.901

4.1.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase
$PM10_{FD}$ = (20 * ACRE * WD) / 2000

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
VMT_{VE} = (HA_{OnSite} + $HA_{OffSite}$) * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
VMT_{WT} = WD * WT * 1.25 * NE

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

5. Construction / Demolition

5.1 General Information & Timeline Assumptions

- Activity Location
County: Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Fence Replacement - Alternative 1

- Activity Description:
The project would involve replacement of the Installation's west perimeter fence (approx. 22,500 feet of fence line). Fence posts would be driven into the ground to a depth of 8 feet and 10 feet apart, with no digging or trenching required.
Project associated construction activities would generally include: fencing, minimal grading, hydroseeding, soil erosion/sediment control and top soil placement. No grading or trenching for fence installation is assumed.

- Maximum length of the fencing would be approx. 22,500 feet. Maximum area estimated to be 180,000 sf.
- Maximum quanity of fill material to be brought onto site for project: 8,000 cubic feet (approx. 296.29 CY)
- Assumed trenching/excavation activity in ACAM for emissions estimation for the fencing project.
- The Off Road Equipment list in ACAM for this activity has been edited to include project-specific equipment.
- Number of hours for each equipment that has been added in ACAM is always assumed to be 8 hours a day.

- Activity Start Date
Start Month: 8
Start Month: 2024

- Activity End Date
Indefinite: False
End Month: 9
End Month: 2024

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.116251
SO_x	0.002134
NO_x	0.628968
CO	0.653138
PM 10	1.813168

Pollutant	Total Emissions (TONs)
PM 2.5	0.022516
Pb	0.000000
NH_3	0.000229
CO_2e	210.8

5.1 Trenching/Excavating Phase

5.1.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date
Start Month: 8
Start Quarter: 2
Start Year: 2024

- Phase Duration
Number of Month: 1
Number of Days: 0

5.1.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information
Area of Site to be Trenched/Excavated (ft^2): 180000
Amount of Material to be Hauled On-Site (yd^3): 296.29
Amount of Material to be Hauled Off-Site (yd^3): 0

- Trenching Default Settings
Default Settings Used: No
Average Day(s) worked per week: 5

- Construction Exhaust

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	1	8
Graders Composite	1	8
Off-Highway Trucks Composite	4	8
Other General Industrial Equipmen Composite	2	8
Other Material Handling Equipment Composite	1	8
Pumps Composite	1	8
Rollers Composite	1	8
Rubber Tired Dozers Composite	2	8
Skid Steer Loaders Composite	1	8
Tractors/Loaders/Backhoes Composite	2	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20
Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

5.1.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.709	000.007	000.685	006.214	000.025	000.022		000.033	00360.544
LDGT	000.864	000.010	001.162	008.954	000.026	000.023		000.034	00480.581
HDGV	001.279	000.015	002.987	025.004	000.058	000.051		000.044	00741.969
LDDV	000.290	000.003	000.322	003.307	000.006	000.006		000.008	00362.930
LDDT	000.577	000.005	000.853	006.657	000.008	000.007		000.008	00565.948
HDDV	000.925	000.014	009.475	002.915	000.364	000.335		000.030	01550.284
MC	002.262	000.008	000.864	015.679	000.031	000.028		000.051	00398.901

5.1.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

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Appendix D-3

Summary Air Conformity Applicability Model Reports
Record of Air Analysis (ROAA)

Airfield BASH Mitigation EA
Grand Forks AFB, North Dakota

(For General Conformity Applicability Determination and National Environmental Policy Act Air Quality Assessment)

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AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

1. General Information

The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:
Base: GRAND FORKS AFB
State: North Dakota
County(s): Grand Forks
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Airfield BASH Mitigation EA, Grand Forks AFB, North Dakota

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 4 / 2024

e. Action Description:

Grand Forks AFB intends to remove standing water by regrading the airfield's west ditch (up to 14,000 linear feet), conducting perimeter drainage maintenance, installing up to 35 acres of drain tile, and mitigating wetlands/floodplains. The proposed action also includes reconstructing ground topography including filling, clearing, grubbing, regrading (via heavy-equipment operation), landscaping, cultivating, and re-seeding up to 150 acres of the project area and replacement of the Installation's west perimeter fence. (22,240 feet of fence line). Fence posts would be driven into the ground to a depth of 8 feet and 10 feet apart, with no digging or trenching required.

ACAM is performed for the Proposed Action comprising of separate projects: reconstructing ground topography, regrading, and drainage system redesign and fence replacement.

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Inc
Email: rnarayanan@versar.com
Phone Number:

2. Air Impact Analysis

Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

_____ applicable
__X__ not applicable

Total net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the USAF Air Emissions Guide for Air Force Stationary Sources, the USAF Air Emissions Guide for Air Force Mobile Sources, and the USAF Air Emissions Guide for Air Force Transitory Sources.

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the National Ambient Air Quality Standards (NAAQSs). These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold for actions occurring in areas that are "Clearly Attainment" (i.e., not within 5% of any NAAQS) and the GCR de minimis values (25 ton/yr for lead and 100 ton/yr for all other criteria pollutants) for actions occurring in areas that are "Near Nonattainment" (i.e., within 5% of any NAAQS). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutant is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQSs. For further detail on insignificance indicators see chapter 4 of the Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II - Advanced Assessments.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicator and are summarized below.

Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.703	250	No
NOx	3.841	250	No
CO	4.006	250	No
SOx	0.013	250	No
PM 10	93.782	250	No
PM 2.5	0.140	250	No
Pb	0.000	25	No
NH3	0.001	250	No
CO2e	1264.2		

2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No
CO2e	0.0		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

None of estimated annual net emissions associated with this action are above the insignificance indicators, indicating no significant impact to air quality.Therefore, the action will not cause or contribute to an exceedance on one or more NAAQSs.No further air assessment is needed.

_____ _____

Radhika Narayanan, Environmental Scientist DATE

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