DRAFT
ENVIRONMENTAL ASSESSMENT FOR MULTIPLE BASE-WIDE PROJECTS AT PETERSON SPACE FORCE BASE, COLORADO

Prepared for:
Peterson Space Force Base
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PRIVACY ADVISORY

Public comments on the Draft Environmental Assessment (EA) were requested. Letters or other written or oral comments provided to the U.S. Space Force (USSF) at Peterson Space Force Base (SFB), Colorado, have been published in this Draft EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided to the USSF, Peterson SFB, Colorado, is used only to identify your intent to make a comment or to fulfill requests for copies of the Final EA or associated documents. Private addresses were compiled to develop a mailing list for those requesting copies of the Draft EA. However, only the names of the individuals making comments and their specific comments have been disclosed. Private address information has not been published in this EA or released for any purpose unless required by law.

DRAFT

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
Environmental Assessment for Multiple Base-Wide Projects at Peterson SFB, Colorado

The United States (U.S.) Space Force (USSF) at Peterson Space Force Base (SFB), Colorado (Figure 1-1) has prepared this Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing/supporting activities outlined in the Peterson SFB *Installation Development Plan* (IDP) and *Blueprint 2050*. The projects proposed for implementation include construction, renovation/addition of facilities, and associated infrastructure. These projects are anticipated to be completed or implemented in a time period that ranges from immediately to 10 years. However, this schedule is an estimate and will be subject to change as projects may be constructed sooner or later than anticipated.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 *U.S. Code* [*USC*] 4321, et seq.), the President's Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 *Code of Federal Regulations* [*CFR*] §§ 1500–1508), and Department of the Air Force policy and procedures (32 *CFR* Part 989).

The purpose of the Proposed Action is to provide infrastructure and functionality improvements necessary to support the missions of USSF and Peterson SFB tenants. The Proposed Action is needed at Peterson SFB in order to continue providing infrastructure that is adequate to meet USSF needs and the needs of all tenant units. Peterson SFB consists of 1,630 acres, of which approximately 459 acres are available for development. Aging facilities, mission operations, and daily activity changes all contribute to the deterioration of infrastructure at Peterson SFB and necessitate that installation development be an ongoing process. Continued development of infrastructure at Peterson SFB must take into account future facility construction, demolition, renovation, transportation needs, land use planning, energy requirements, stormwater management, and development constraints and opportunities.

The EA, incorporated by reference into this finding, analyzes the potential environmental consequences of activities associated with each of the Proposed Action and provides environmental protection measures to avoid or reduce adverse environmental impacts.

The EA considers all potential impacts of the Proposed Action and the No Action Alternative. The EA also considers cumulative environmental impacts with other past, present, and reasonably foreseeable actions within the region that could interact with implementation of the Proposed Action at Peterson SFB, Colorado.

PROPOSED ACTION

Section 2.2 of the EA provides detailed descriptions of the Proposed Action. The Proposed Action consists of 10 projects, Alternative 1 represents alternatives to Project 1, which is the North Gate Entry Control Complex. The other development projects (Projects 2 through 10) would be implemented as described under the Proposed Action. The Proposed Action, Alternative 1 and the No Action Alternative were evaluated in the EA. Each project involves several components, including ground-disturbing activities and construction. A summary is provided in Table 1.

Table 1. Peterson SFB Proposed Installation Development Projects

Development Year	Project Name	Approximate Size
Transportation and Parking Improvements		
2023	1. North Gate Entry Control Point Project	22 acres
2023–2031	2. Recreational Vehicle (RV) Storage Lot	12 acres
Lease Agreements		
2023–2024	3. Colorado Springs Airport (COSA) 10-acre Lease	10 acres
2023–2025	4. Colorado Springs Airport (COSA) 168-acre Lease	168 acres
Facility Construction		
2023–2024	5. Special Operations Command North (SOCNORTH) Human Performance Training Center (HPTC)	2.27 acres
2023–2031	6. South Command Area Development	29 acres
2023–2025	7. Mission-Related Project	50,000-square foot multi-story building, 20-acre complex
2023–2025	8. Hazardous Waste Facility Project	4,500-square foot single-story building, 9-acre complex
2027	9. Lodging Facility Project	35 acres
Electrical Upgrades		
2023–2024	10. Electrical Grid Upgrade Project	Not applicable

With the exception of the two lease agreements (described in Section 2.2.2 of the EA), all of the projects evaluated in the EA are located inside the existing boundary of Peterson SFB. The IDP projects are representative of the range of development activities that have been occurring at Peterson SFB in the past and are anticipated to occur in the future.

For the purposes of estimating potential impacts, it was assumed that the population of the installation would increase by approximately 2,000 personnel during the period covered by this EA. These personnel are associated with the transfer of units from the Navy, Army, Marine Corp, and USAF to USSF along with the transfer of Peterson SFB personnel currently occupying off-base lease properties to Peterson SFB proper.

No building demolition would be conducted as part of the Proposed Action. The construction of new facilities would be sited in accordance with appropriate land use areas in order to continue or enhance compatibility with currently designated land use areas on Peterson SFB. As appropriate, proposed construction projects would include the extension/improvement of existing infrastructure such as roads, electricity, water, storm drainage, and sanitary sewer lines to service the facilities as well as appropriate vehicle parking for the new facilities.

ALTERNATIVE 1

Alternative 1 represents alternatives to one of the proposed development projects that meet the selection criteria for that project but are less optimal than the options presented in the Proposed Action. As part of the initial design process, the USSF evaluated three different alternatives, referred to as Courses of Action (COAs) for Project 1 (North Gate Entry Control Complex). A revised COA 2 is the preferred COA and has been described under the Proposed Action. COA 1 included an immediate right-hand S-turn into the installation with the search area office and guard parking located on the south side of the new entrance roadway. COA 3 included an immediate left

turn into the installation and extended the search area office, guard parking, and gate to the east near Marksheffel Road.

Although the development activities under Alternative 1 would not result in any personnel increases beyond the addition of the approximately 2,000 personnel described under the Proposed Action, construction activities would create temporary construction and construction-related jobs.

NO ACTION ALTERNATIVE

Implementation of the No Action Alternative would not result in any facility or infrastructure changes at Peterson SFB. USSF would continue to operate Peterson SFB with existing facilities and conduct USSF operations with no facility or infrastructure improvements. In addition, facilities and infrastructures would continue to degrade and ultimately impact the mission. Analysis of the No Action Alternative provides a basis for comparing the environmental consequences of the Proposed Action to the existing (baseline) conditions over time. Future planned development would continue to occur under the No Action Alternative. However, those projects would be evaluated through separate project-specific NEPA documentation, as appropriate.

SUMMARY OF FINDINGS

The USSF has concluded that, by implementing standing environmental protection measures and operational planning, no significant impacts to the following resources would result from implementation of any of the projects or from implementation of all the projects. Therefore, it has been determined that an Environmental Impact Statement (EIS) is not required.

Air Quality (EA Section 3.3)

Implementation of the Proposed Action would result in short-term construction-related emissions (particulate matter and engine exhaust emissions) generated on base. Emissions would be considered minor because they would be short in duration and would be negligible with respect to overall conditions for the region. Based on air emissions modeling and analysis, the Proposed Action would not be expected to result in any significant increase in criteria pollutant air emissions, and no adverse impacts would occur. The nominal amount of greenhouse gas emissions would not likely contribute to climate change to any discernible extent. Implementation of Alternative 1 would also not result in significant impacts. The No Action Alternative would have no short- or long-term impacts beyond those of current conditions. Therefore, no significant impacts to air quality would result from the Proposed Action, Alternative 1, or the No Action Alternative.

Biological Resources (EA Section 3.4)

With the exception of the two lease projects, all of the proposed development projects would occur in developed, improved, or maintained areas. Although the two lease projects (Projects 3 and 4) are in undeveloped areas, there are no construction or development plans at this time for these two projects. Examples of developed areas on Peterson SFB include existing facilities and associated parking lots, turf, and landscaped or mowed parcels. Although a relatively small number of wildlife species could occur in such developed areas (generally those tolerant of human presence and activity), the limited habitat value substantially decreases the biological importance of these sites. Therefore, impacts to vegetation and wildlife resulting from projects located in developed or maintained areas are considered minor.

Implementation of the Proposed Action and Alternative 1 would not result in significant impacts to biological resources. The No Action Alternative would also have no short- or long-term impacts to biological resources beyond those of current conditions.

Cultural Resources (EA Section 3.5)

Implementation of the Proposed Action would not result in any short- or long-term impacts to cultural resources because no National Register of Historic Places (NRHP)-eligible buildings would be altered, demolished, or otherwise affected. The base has been inventoried for archaeological resources, and no NRHP-eligible archaeological resources have been identified within the installation boundaries. Three resources have been identified within the APE (Site 5EP6394, Site 5EP2178, and Site 5EP.9323). Site 5EP6394 is the remnants of a historic homestead located in the vicinity of Project 2. No intact structures remain of the homestead and Peterson SFB has determined that the site is not eligible for the NRHP (Stell 2022). Site 5EP2178 is a series of erosion control ditches located in the vicinity of Project 10 and within the land proposed for a lease (Project 3). Site 5EP2178 has been determined not eligible for the NRHP and SHPO concurred with that finding (Peterson SFB, 2021b). The ditches associated with Site 5EP2178 extend into the 10-acre lease (Project 3). Peterson SFB determined that the ditches within the 10-acre lease are also not eligible for listing on the NRHP (Stell 2022). Site 5EP.9323 is an isolated find and has been determined not eligible for NRHP listing (Stell 2022).

The No Action Alternative would have no adverse effects on historic properties. Therefore, no significant impacts to cultural resources would result from the Proposed Action, Alternative 1, or the No Action Alternative.

Consultation with the State Historic Preservation Officer (SHPO) and Native American Tribes has been initiated. To date, only the Northern Cheyenne Tribe has requested additional information on previous surveys conducted at Peterson SFB. None of the other Native American Tribes provided comments regarding the Proposed Action. Peterson SFB will continue to consult with the tribes through the NEPA process.

Land Use (EA Section 3.6)

Implementation of the Proposed Action and Alternative 1 would not cause permanent changes to any land use classifications on Peterson SFB. Implementation of the No Action Alternative would also not cause any permanent changes to any land use classifications or result in significant impacts.

Safety (EA Section 3.7)

Although implementation of the Proposed Action could result in potential minor impacts to workers during construction activities, potential impacts to construction workers would be minimized by adherence to health and safety regulations and standards. The Proposed Action and Alternative 1 would have no long-term adverse impact to the safety or occupational health of construction workers. The No Action Alternative would not have any short- or long-term impacts beyond those of current conditions. Therefore, no significant impacts to safety would result from the Proposed Action, Alternative 1, or the No Action Alternative.

Socioeconomics (EA Section 3.8)

Implementation of the Proposed Action and Alternative 1 would result in beneficial impacts to socioeconomic resources on and around Peterson SFB. Beneficial socioeconomic impacts would result from workers that are hired to design and or build the new facilities and the local businesses that would supply equipment and materials for construction along with the businesses that would

be patronized during construction activities. Significant impacts to socioeconomic resources would not result from implementation of the Proposed Action, Alternative 1, or the No Action Alternative.

Soils and Water (EA Section 3.9)

The Peterson SFB Storm Water Pollution Prevention Plan describes control practices that would be used to reduce the potential for soil erosion and sediment transport off site. Peterson SFB would implement best management practices (BMPs) to mitigate any potential impacts to soils or subsequent impacts to wetlands, surface water, and groundwater. With application of BMPs and adherence to the construction general permit stipulations, potential significant impacts to soils and water resources would not be anticipated to result from the Proposed Action, Alternative 1, or No Action Alternative.

Infrastructure (EA Section 3.10)

The existing utility infrastructure on Peterson SFB has the capacity to service the proposed development projects and the incoming personnel. The new structures would take advantage of existing utility services in each of the areas proposed for development. Normal coordination would be conducted with utility service providers to minimize service interruptions to surrounding facilities. All infrastructure utility upgrades would comply with energy efficiency and sustainable development mandates. The No Action Alternative would result in no short- or long-term impacts beyond those of current conditions. Therefore, no significant impacts to infrastructure would result from the Proposed Action, Alternative 1, or the No Action Alternative.

Cumulative Effects (EA Section 5.0)

When added to past, present, and reasonably foreseeable actions, the Proposed Action, Alternative 1 and the No Action Alternative would not result in significant adverse cumulative impacts to any of the resource areas described above.

PUBLIC AND AGENCY OUTREACH

Per the requirements of the Intergovernmental Cooperation Act of 1968 (42 *USC* 4231(a)) and Executive Order (EO) 12372, federal, state, and local agencies with jurisdiction that could be affected by the Proposed Action were notified during the development of the EA.

The USSF sent letters to the Colorado SHPO and Native American Tribes notifying them of the Proposed Action. See Appendix A for project correspondence.

The Draft EA has been made available to the public and others online at https://www.spacebasedelta1.spaceforce.mil/Environmental/ and at the Pikes Peak Public Library located at 5550 N. Union Boulevard, Colorado Springs, CO 80918 for 30 days between October 7, 2022, and November 7, 2022.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and analyses contained in the attached EA, conducted under the provisions of NEPA, CEQ regulations, and 32 *CFR* 989, I conclude that implementation of the projects identified in the EA would not have a significant environmental impact, either by themselves or cumulatively with other past, present, and reasonably foreseeable projects at Peterson SFB or within the regional area of Peterson SFB. Accordingly, an EIS is not required. The signing of this FONSI completes the environmental impact analysis process.

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ACRONYMS AND ABBREVIATIONS

ACAM	Air Conformity Applicability Model
ADP	Area Development Plan
AFB	Air Force Base
AFMAN	Air Force Manual
APE	Area of Potential Effect
CAA	Clean Air Act
CDHPE	Colorado Department of Public Health and Environment
CDPS	Colorado Discharge Permit System
CEMML	Center for Environmental Management of Military Lands
CFR	*Code of Federal Regulations*
CO	carbon monoxide
COA	Courses of Action
COS	Colorado Springs
COSA	Colorado Springs Airport
CPW	Colorado Parks and Wildlife
DoD	U.S. Department of Defense
EA	Environmental Assessment
EISA	Energy Independence and Security Act
FAA	Federal Aviation Administration
FONSI	Finding of No Significant Impact
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbons
HPTC	Human Performance Training Center
ICRMP	Integrated Cultural Resources Management Plan
IDP	Installation Development Plan
INRMP	Integrated Natural Resources Management Plan
IP	Instructor Pilot
IPaC	Information for Planning and Consultation
kWh	Kilowatt Hours
MBTA	Migratory Bird Treaty Act
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NPDES	National Pollution Discharge Elimination System
N_2O	nitrous oxide
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PFCs	perfluorocarbons
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
PSD	Prevention of Significant Deterioration
ROI	Region of Influence
RV	Recreational Vehicle

SFB	Space Force Base
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SOCNORTH	Special Operations Command North
SOF	Special Operations Forces
SO_2	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
UFC	United Facilities Criteria
USAF	United States Air Force
USC	*U.S. Code*
U.S.	United States
USSF	U.S. Space Force
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound

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1. PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The United States (U.S.) Space Force (USSF) at Peterson Space Force Base (SFB), Colorado (Figure 1-1) has prepared this Environmental Assessment (EA) to evaluate the potential environmental impacts associated with implementing/supporting activities outlined in the Peterson SFB *Installation Development Plan* (IDP) (Peterson SFB], 2021a) and *Blueprint 2050* (Peterson AFB, 2020a). The projects proposed for implementation include construction and renovation/addition of facilities, and associated infrastructure. These projects are anticipated to be completed or implemented in a time period that ranges from immediately to 10 years. However, this schedule is an estimate and will be subject to change as projects may be constructed sooner or later than anticipated.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 *U.S. Code* [*USC*] 4321, et seq.), the President's Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 *Code of Federal Regulations* [*CFR*] §§ 1500–1508), and Department of the Air Force policy and procedures (32 *CFR* Part 989).

This EA evaluates the potential environmental impacts of selected projects involved in modernizing and upgrading Peterson SFB to meet future requirements. The individual projects analyzed in this EA as part of the Proposed Action and alternatives are considered independent of each other. The USSF may eventually choose to implement all, none, or any combination of these projects.

Installation development is an ongoing process at Peterson SFB. The USSF intends to streamline NEPA compliance and facilitate the installation development process by evaluating, in one integrated document, the potential impacts on the human and natural environments of this group of projects planned or programmed for implementation at Peterson SFB over the next 10 years.

1.2 PURPOSE OF THE ACTION

The purpose of the Proposed Action is to provide infrastructure and functionality improvements necessary to support the missions of USSF and Peterson SFB tenants in a manner that:

- Meets current Air Force requirements for functional space, consistent with Department of the Air Force Manual (AFMAN) 32-1084, *Standard Facility Requirements*;
- Meets applicable Department of Defense (DoD) antiterrorism criteria, consistent with Unified Facilities Criteria (UFC) 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*;
- Meets applicable DoD installation master planning criteria, consistent with UFC 2-100-01, *Installation Master Planning,* and Air Force Instruction 32-1015, *Integrated Installation Planning*;
- Provides reliable utilities and an efficient transportation system to support Peterson SFB, consistent with Department of the Air Force Manual 32-1084;
- Supports and enhances the morale and welfare of personnel assigned to the installation, their families, and civilian staff, consistent with DoD Instruction 1015.10, *Military Morale, Welfare, and Recreation Programs.*

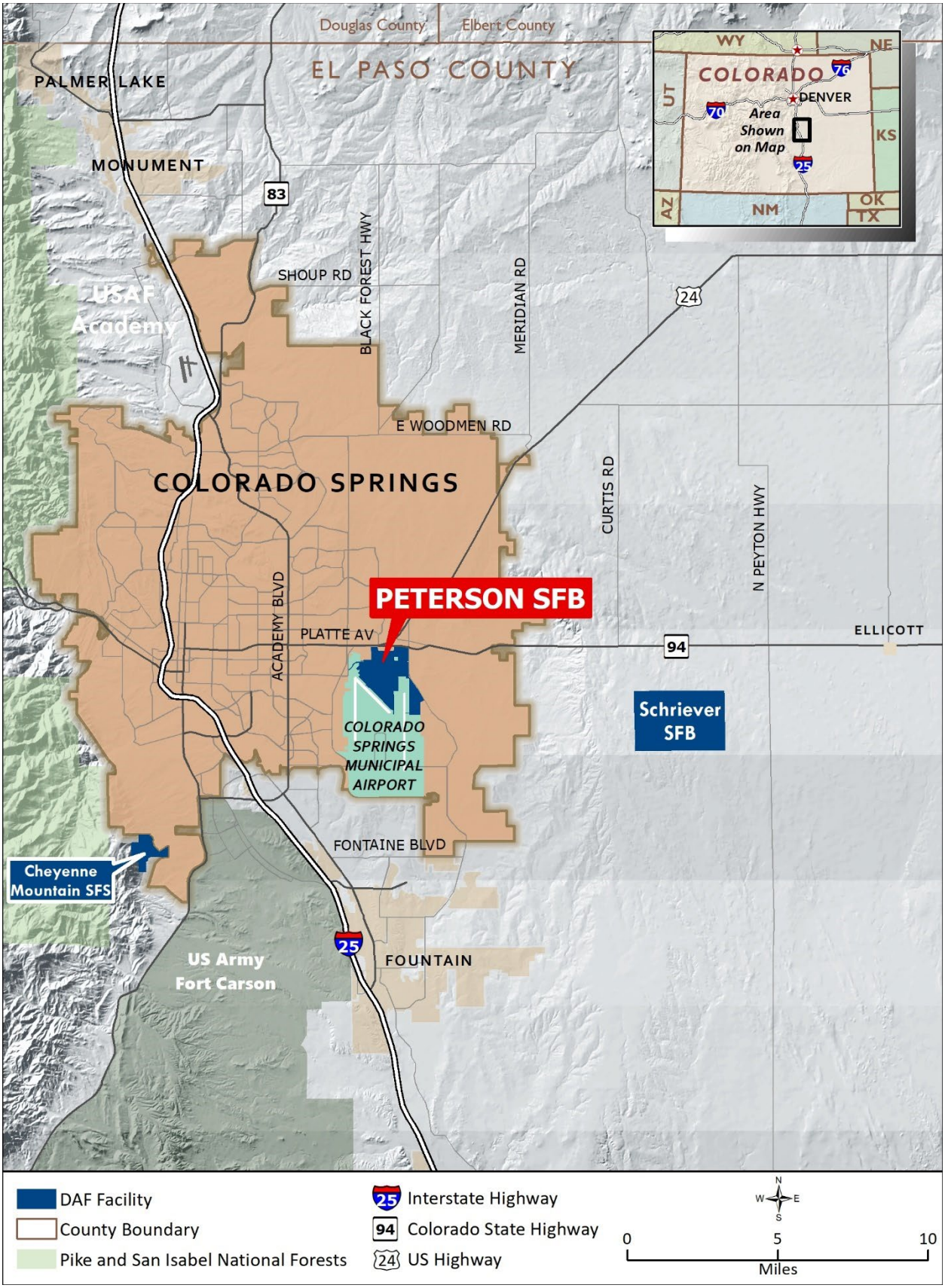

Figure 1-1. Regional Map of Peterson Space Force Base

1.3 NEED FOR THE PROPOSED ACTION

The Proposed Action is needed at Peterson SFB in order to continue providing infrastructure that is adequate to meet USSF needs and the needs of all tenant units. Peterson SFB consists of 1,630 acres, of which approximately 459 acres are available for development. Aging facilities, mission operations, and daily activity changes all contribute to the deterioration of infrastructure at Peterson SFB and necessitate that installation development be an ongoing process. Continued development of infrastructure at Peterson SFB must take into account future facility construction, demolition, renovation, transportation needs, land use planning, energy requirements, stormwater management, and development constraints and opportunities.

1.4 INTERGOVERNMENTAL COORDINATION/CONSULTATIONS

1.4.1 Interagency and Intergovernmental Coordination and Consultations

As the responsible agency, the USSF has implemented the Interagency and Intergovernmental Coordination process. Through this process, the USSF notifies relevant federal, state, and local agencies about the Proposed Action and alternatives. The process provides USSF the opportunity to consider state and local views in implementing the Proposed Action or alternatives. This process was initiated during the early stages of this project when USSF provided an initial summary of the Proposed Action to federal, state, and local agencies as well as other stakeholders. Agency responses have been considered in developing the final scope of the EA. Coordination materials for this EA are included in Appendix A.

1.4.2 Government-to-Government Consultations

AFMAN 90-2002, *Interactions with Federally Recognized Tribes*, directs federal agencies to coordinate and consult with Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. To comply with legal mandates, federally recognized tribes that are historically affiliated with the geographic region of Peterson SFB are invited to consult on proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. The tribal coordination process is distinct from NEPA consultation or interagency coordination processes and requires separate notification of all relevant tribes. The timelines for tribal consultation are also distinct from those of intergovernmental consultations. The Peterson SFB point-of-contact for Native American tribes is the Installation Commander. The Peterson SFB point-of-contact for consultation with the Tribal Historic Preservation Officers and the Advisory Council on Historic Preservation is the Cultural Resources Manager.

The letters to Native American tribal governments that have been coordinated or consulted with regarding these actions, their responses, and follow-up logs are included in Appendix A. As described in Section 3.5.3.2, the Peterson SFB has conducted Section 106 government-to-government consultation with the tribes as described herein.

1.4.3 Other Agency Consultations

Section 7 of the Endangered Species Act requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) when a proposed action may affect a federally listed plant or animal species or designated critical habitat.

Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 *CFR* Part 800 require federal agencies to consult with the State Historic Preservation Officer (SHPO) when a proposed action is a type of activity that has the potential to cause effects on

historic properties. Because the Proposed Action includes construction, Peterson SFB has initiated consultation with the Colorado SHPO (Appendix A).

1.5 PUBLIC AND AGENCY REVIEW OF THE DRAFT EA

All agencies, organizations, tribes, and members of the public with a potential interest in the Proposed Action are encouraged to participate in the decision-making process during the 30-day Draft EA public comment period. Public participation opportunities with respect to this EA and decision making on the Proposed Action are guided by 32 *CFR* 989, *Environmental Impact Analysis Process (EIAP)*.

A public Notice of Availability (NOA) of the Draft EA and Finding of No Significant Impact (FONSI) 30-day public comment period was published in the Colorado Springs Gazette on October 7, 2022 (see Appendix A). The NOA invited the public to review and comment on the Draft EA and FONSI. The public and agency review period will end on November 7, 2022. Public and agency comments are provided in Appendix A.

The Draft EA has been made available to the public and others online at https://www.spacebasedelta1.spaceforce.mil/Environmental/ and at the Pikes Peak Public Library located at 5550 N. Union Boulevard, Colorado Springs, CO 80918 for 30 days between October 7, 2022 and November 7, 2022.

1.6 DECISION TO BE MADE

This EA is a planning and decision-making tool that will be used to guide Peterson SFB in implementing the Proposed Action in a manner consistent with USSF standards for environmental stewardship. After considering the information presented in this EA, USSF will decide if the environmental consequences resulting from the Proposed Action and alternatives support a FONSI or if an Environmental Impact Statement would be required.

Conditions existing as of 2022, considered the "baseline" conditions, as well as the consequences of implementing the Proposed Action, are described in Chapter 3, *Affected Environment and Environmental Consequences.* Chapter 3 also addresses any mitigation measures that might be necessary.

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

This section presents information on the Proposed Action and alternatives for implementing multiple projects contained in the Peterson SFB IDP (Peterson AFB, 2021a) and *Blueprint 2050* (Peterson AFB, 2020a). These projects include an entry control point realignment, various lease actions for future development, building construction, parking and recreational vehicle lot construction, electrical upgrades, and infrastructure improvements. Section 2.2 describes the Proposed Action; Section 2.3 identifies alternatives to the Proposed Action; Section 2.4 describes the No Action Alternative; Section 2.5 describes alternatives considered but eliminated from further consideration; and Section 2.6 describes other future actions in the region.

Master planning is an iterative process that involves meetings and planning sessions (charrettes) and data collection to develop feasible alternatives. The process consists of identification, evaluation, and implementation phases. The identification phase prepares the foundation for detailed planning through identification of a vision; specific goals that support that vision; and measurable objectives that support one or more goals. In the evaluation phase, planners prepare and evaluate development alternatives. Planning charrettes, which evaluate specific areas with the necessary support of installation stakeholders, are part of the evaluation. The implementation phase is marked by the selection of a preferred alternative that would implement the vision. Detailed documents are prepared to guide installation development and implementation of the plan.

Following the creation of the Proposed Action, installation planners organize development actions chronologically, ultimately separating development into three separate phases: short-range, mid-range, and long-range. Short-range actions often represent development that is quickly implementable and/or has low implementation costs. Mid-range development represents development that requires a more complex or lengthy planning process or development that precipitates from actions taken during the Short-Range phase. Finally, long-range actions represent development that is not expected to be implemented in the near future; these are often large and forward-thinking projects that consider and address the future needs of operations and personnel on the installation.

Peterson SFB was divided into identifiable and connected districts based on geographical features, land use patterns, building types, and/or transportation networks. As districts are identified, Area Development Plans (ADPs) are then prepared for each district. This leads to developing the IDP in logical planning increments. By focusing master planning on districts, planners can easily identify areas that need planning attention due to mission requirements or command priority changes. Peterson SFB is divided into eight ADP districts (Command Complex, Triangle, Guardian Campus, Garrison Support, Flight Line, Housing, Recreation, and Pete East).

The Proposed Action and all reasonable alternatives are presented and evaluated in this EA. The individual projects analyzed in this EA are considered independent of each other and the USSF may eventually choose to implement all, none, or any combination of these projects.

2.2 PROPOSED ACTION

The Proposed Action involves implementation of ten different installation development projects contained in the Peterson SFB IDP (Peterson SFB, 2021a) and *Blueprint 2050* (Peterson AFB, 2020a) (Table 2-1).

Table 2-1. Peterson SFB Proposed Installation Development Projects

Development Year	Project Name	Approximate Size
Transportation and Parking Improvements		
2023	1. North Gate Entry Control Point Project	22 acres
2023–2031	2. Recreational Vehicle (RV) Storage Lot	12 acres
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2023–2024	10. Electrical Grid Upgrade Project	Not applicable

These projects are anticipated to be completed or implemented over the next 10 years. However, this schedule is an estimate. Depending on funding and planning, it could change as projects may be constructed sooner or later than anticipated, or not at all.

With the exception of the two lease agreements (described in Section 2.2.2), all of the projects evaluated in this EA are located inside the existing boundary of Peterson SFB. The IDP projects are representative of the range of development activities that have been occurring at Peterson SFB in the past and are anticipated to occur in the future. Figure 2-1 illustrates the locations of projects associated with the Proposed Action.

For the purposes of estimating potential impacts, it was assumed that the population of the installation would increase by approximately 2,000 personnel during the period covered by this EA. These personnel are associated with the transfer of units from the Navy, Army, Marine Corp, and USAF to USSF along with the transfer of Peterson SFB personnel currently occupying off-base lease properties to Peterson SFB proper.

No building demolition would be conducted as part of the Proposed Action. The construction of new facilities would be sited in accordance with appropriate land use areas in order to continue or enhance compatibility with currently designated land use areas on Peterson SFB. As appropriate, proposed construction projects would include the extension/improvement of existing infrastructure such as roads, electricity, water, storm drainage, and sanitary sewer lines to service the facilities as well as appropriate vehicle parking for the new facilities.

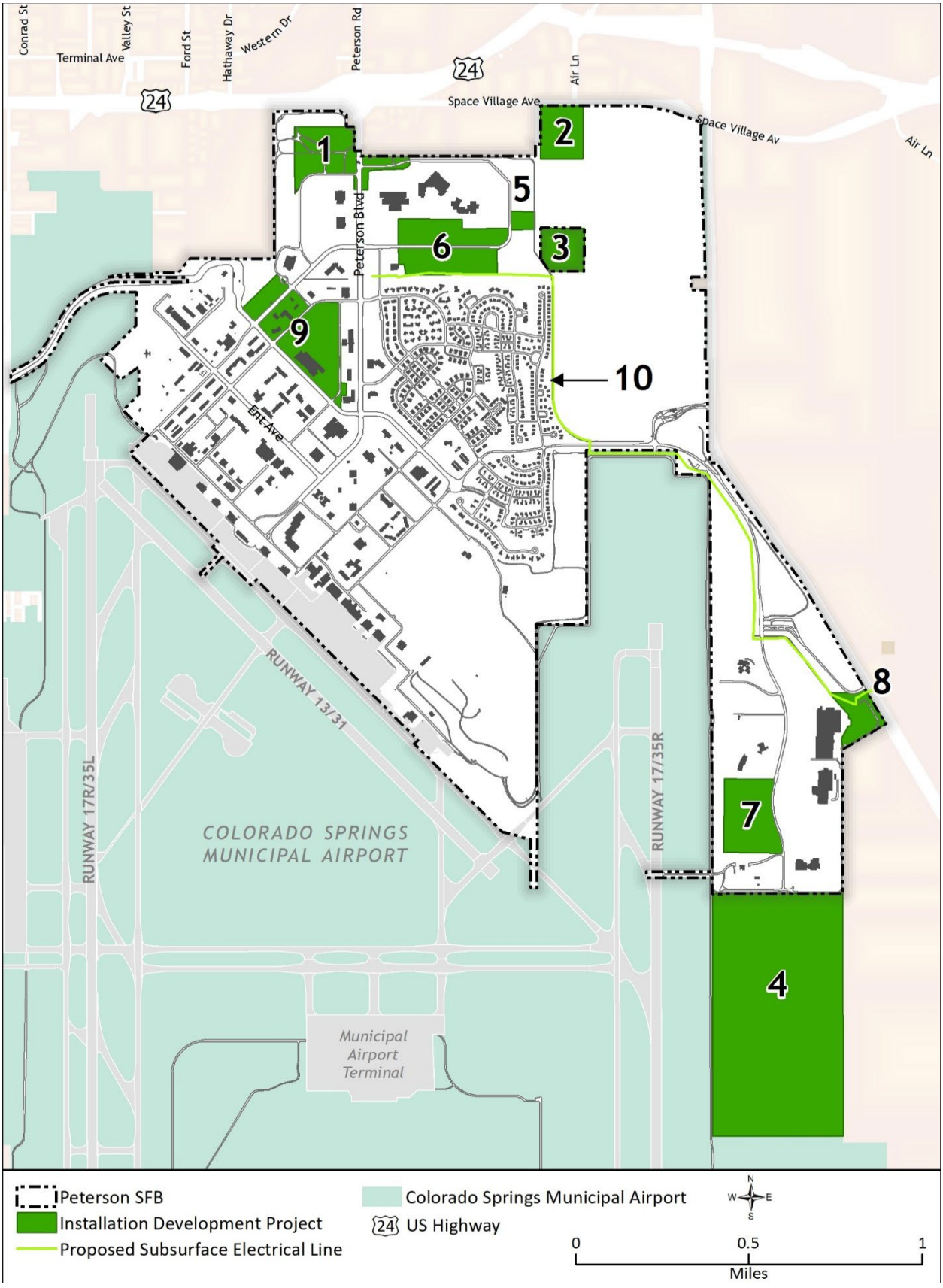

Figure 2-1. Location of Proposed Installation Development Projects on Peterson SFB

All proposed construction would be completed in accordance with applicable federal, state, and local regulations and guidelines, including best management practices, to protect the human and natural environment. Construction activities would be conducted in accordance with Air Force safety regulations and standards prescribed by AFMAN 91-203, *Air Force Occupational Safety and Health*.

Environmental controls could include, but not be limited to, preparation of a preconstruction survey report, health and safety plan, pollution prevention plan, stormwater protection plan, Stormwater Pollution Prevention Plan (SWPPP), erosion and sediment control plan, waste disposal plan, dust control plan, and asbestos removal plan. The contractor performing the action would be required to submit appropriate plans and specifications to USSF.

Landscaping would conform to the Peterson SFB *Integrated Natural Resources Management Plan* (INRMP) (Peterson AFB 2020b) as well as the *Installation Facilities Standards* (Peterson AFB, 2018a) requirements regarding suggested and prohibited plants. Landscape design would use regionally appropriate plants for improved and semi-improved grounds that would minimize adverse effects on natural habitats while reducing maintenance inputs in terms of energy, water, manpower, and equipment. Force protection measures would be incorporated in accordance with UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*. Construction would comply with applicable building, fire, and safety codes. Construction activities would require compliance with Energy Independence and Security Act (EISA) Section 438 requirements. The proposed construction projects would be implemented using sustainable design concepts as outlined in the Peterson SFB *Installation Facilities Standards* (Peterson AFB, 2018a). Sustainable design concepts emphasize state-of-the-art strategies for site development, efficient water and energy use, and improved indoor environmental quality. Design practices that could be implemented to manage stormwater include porous pavement, bio-retention swales with curb cuts, rain gardens, and enhancement of riparian buffers.

Trees located on or near construction sites would be considered for preservation, replacement, or relocation. Priority would be given to trees in good condition that appear on the INRMP list of recommended trees and shrubs. Trees and vegetation impacted from construction activities would be replaced or relocated, as appropriate. Ground disturbed during construction activities that does not include site improvements would be reseeded with appropriate species as specified in the INRMP. Greater detail on each of the construction projects is provided in the following paragraphs.

2.2.1 Transportation and Parking Improvements

Project 1 - North Gate Entry Control Point Project. This project involves the construction of a new North Gate complex compliant with current DoD antiterrorism standards consistent with UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings.* Safety, security, capacity, and image were considered as priorities in design. The new gate would continue to provide access via Peterson Boulevard from Highway 24 and East Platte Avenue/Space Village Avenue. Approximately 35,000 square feet of new pavement and buildings would be associated with the new access road, gate area. The primary facilities would include, but not be limited to a gatehouse, guard booth, overwatch area, new canopies, active and passive vehicle barriers, site lighting, and antiterrorism measures. Supporting facilities would include utilities, stormwater drainage, and additional sidewalks. Once construction of the new gate is completed, the existing pavement and gate structure would be removed and the area would be landscaped. The total project area is approximately 22 acres; construction activities would occur over a 12-month period.

Project 2. Recreational Vehicle (RV) Storage Lot. This project consists of the conversion of approximately 12 acres of undeveloped land into a gravel parking lot to accommodate RV storage. The site for this project is located in the northeast corner of Peterson SFB, south of Space Village Avenue. In addition to the placement of gravel, this project would include the development of stormwater controls and the installation of appropriate lighting for the storage lot.

2.2.2 Lease Agreements

Project 3. Colorado Springs Airport (COSA) 10-acre Lease. This project involves the acquisition of a lease agreement between the COSA and the USSF on a 10-acre parcel of land. Prior to COSA ownership, this parcel was owned by School District 11 and is therefore referred to as the D11 property. The square-shaped parcel is located near the northeast border of Peterson SFB. Although there are no foreseeable development plans for this area, this 10-acre parcel could eventually be used for expansion of the installation.

Project 4. Colorado Springs Airport (COSA) 168-acre Lease. This project involves the acquisition of a lease agreement between the COSA and the USSF on a 168-acre parcel of land. This parcel is located on the east side of the COSA runway and south of the eastern portion of Peterson SFB. The rectangle-shaped parcel includes the Airport Surveillance Radar site managed by the Federal Aviation Administration (FAA). The FAA is currently planning to move the Airport Surveillance Radar regardless of the proposed lease agreement. Although there are no foreseeable development plans for this area, this 168-acre parcel could eventually be used for field exercises or base expansion.

2.2.3 Facility Construction

Project 5. SOCNORTH HPTC. This project involves the construction of a 12,000-square foot permanent Human Performance Training Center with associated infrastructure to support the SOCNORTH Headquarters Facility. The human performance-training program incorporates the latest training and rehabilitation protocols on increasing combat performance, preventing injuries, and decreasing recovery times of joint Special Operations Forces (SOF). This facility will better prepare the SOF to withstand the extraordinary physical demands and stress associated with high operational tempo and battlefield demands. Functional requirements dictate that this facility be co-located with existing SOCNORTH facilities and is proposed to be located directly north of the SOCNORTH Headquarters facility.

This facility would be a one-story, high-bay structure with a low-sloped roof. The supporting infrastructure would include a parking garage and the development of stormwater controls. This 2.27-acre complex would be connected to family housing via a direct pedestrian/bike trail. It will also include a workout area to the north.

Project 6. South Command Area Development. The South Command Area is approximately 29-acres located south of the major command headquarters on Peterson SFB. The proposed development would include two notional administrative facilities, associated parking garages, realignment of Paine Street, and removal of existing parking lots. This development would be designed to accommodate 1,500 new personnel.

Project 7. Mission-Related Project. The mission support command project would involve the construction of a new administrative building capable of accommodating approximately 360 personnel. These personnel are associated with the stand-up of USSF and Space Operations Command as staff are transferred from the Army, Navy, and USAF to USSF. The administrative building would be approximately 50,000-square foot building sited within the 20-acre complex. The complex would be located north of Seidler Street in the eastern portion of Peterson SFB.

Project 8. Hazardous Waste Facility Project. This project would involve relocation of the existing Hazardous Waste Facility to a location behind the base exchange on the eastern portion of Peterson SFB. The building would be approximately 4,500 square feet in size located on a 9-acre site on the east side of the base exchange.

Project 9. Lodging Facility Project. This project would involve the continuing redevelopment of the Triangle Area on the base (between Peterson Boulevard, Stewart Avenue, and Paine Street) in accordance with the Triangle ADP. Previously planned projects in this area included a new administration complex that incorporated existing buildings such as the bank, credit union and post office (Peterson AFB, 2018b). Proposed new development in this area would include the construction of lodging facilities, mixed-use facilities and a new parking structure. The total area of disturbance would be approximately 35 acres and construction would occur over a 2-year period.

Project 10. Electrical Grid Upgrade Project. This project involves installing approximately 24,000 linear feet of new electrical line (in concrete-encased duct bank) to complete the electrical loop to ensure adequate service to Peterson East (see Figure 2-1). The upgrade would also connect Peterson East grid to the Peterson Main Grid. The project would involve the underground installation of conduit and wiring from the new substation to Peterson East via two redundant duct electrical banks. Trenching would be at least three feet deep by two feet wide. Construction activities would occur over a 6-month period.

2.3 ALTERNATIVES TO THE PROPOSED ACTION

The proposed development projects have undergone an intensive review by Civil Engineering Planning and supporting installation staff. During preparation of the Peterson SFB IDP (Peterson AFB, 2021a) and *Blueprint 2050* (Peterson AFB, 2020a), ADPs and individual project planning and programming efforts, alternatives for each of the ten projects were considered and evaluated.

2.3.1 Selection Criteria

During the evaluation of suitable facility sites and the development of projects, various operational and engineering solutions were identified based on the following selection criteria:

- Fulfillment of current mission requirements;
- Facility sustainability as mission evolves or changes;
- Consistency with future land uses;
- Consistency with state, regional, and local plans;
- Consistency with DoD and Air Force policies, guidance, and directives;
- Functional compatibility with existing missions and adjacent facilities;
- Collocation of like services and creates pedestrian connections to other areas;
- Availability of sites and adequacy of space;
- Adherence to Air Force Strategic Sustainable Performance goals and objectives; and
- Environmental and mission constraints.

Based on these selection standards, several conceptual alternatives were considered for projects within the ADPs. See Section 2.5 for a discussion of alternatives considered but eliminated from further consideration.

2.3.2 Alternative 1

Alternative 1 represents alternatives to one of the proposed development projects that meet the selection criteria for that project but are less optimal than the options presented in the Proposed Action. As part of the initial design process, the USSF evaluated three different alternatives, referred to as Courses of Action (COAs) for Project 1 (North Gate Entry Control Complex). A revised COA 2 is the preferred COA and has been described under the Proposed Action. COA 1 included an immediate right-hand S-turn into the installation with the search area office and guard parking located on the south side of the new entrance roadway. COA 3 included an immediate left turn into the installation and extended the search area office, guard parking, and gate to the east near Marksheffel Road.

The other development projects (Projects 2 through 10) would be implemented as described under the Proposed Action (Figure 2-1).

Although the development activities under Alternative 1 would not result in any personnel increases beyond the addition of the 2,000 personnel described under the Proposed Action, construction activities would create temporary construction and construction-related jobs.

2.4 NO ACTION ALTERNATIVE

Implementation of the No Action Alternative would not result in any facility or infrastructure changes at Peterson SFB. USSF would continue to operate Peterson SFB with existing facilities and conduct USSF operations with no facility or infrastructure improvements. In addition, facilities and infrastructures would continue to degrade and ultimately impact the mission. Analysis of the No Action Alternative provides a basis for comparing the environmental consequences of the Proposed Action to the existing (baseline) conditions over time. Future planned development would continue to occur under the No Action Alternative. However, those projects would be evaluated through separate project-specific NEPA documentation, as appropriate.

2.5 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The process for selecting projects to be analyzed in this EA was initiated with a review of projects included in the Peterson SFB IDP (Peterson AFB, 2021a) and *Blueprint 2050* (Peterson AFB, 2020a). The inclusion of a project in the IDP begins with the identification of a mission essential requirement by a proponent, which could be one of the many tenants on Peterson SFB. The proponent submits the requirement to the Base Civil Engineer for project consideration. Working with the proponent, civil engineering staff and other subject matter experts (including planners and environmental scientists) conduct internal reviews to determine if the proposed project is consistent with antiterrorism and force protection requirements and other approved base plans. The internal review includes an evaluation of alternatives for potential development sites, which in turn must meet requirements outlined in the selection criteria presented in Section 2.3.1.

Because mission requirements largely dictate land and facility support requirements, the IDP is developed around the capabilities of existing infrastructure and facilities to meet existing and projected mission needs. An assessment of the installation capacities provides planning guidance regarding improvements needed to adequately serve the installation's supported populations and missions, accommodate future growth, and meet the goals and objectives of the IDP planning vision. Facility, utility, or infrastructure shortfalls identified via this quantitative analysis process are then addressed by future development planning project recommendations. Likewise, identified surpluses may support larger-scale development, consolidation of resources, or mission expansion in areas of the installation where these capacity opportunities exist (Peterson SFB, 2021a).

An alternative to Project 8 (Hazardous Waste Facility Project) included expansion of the existing hazardous waste facility at Building 685. Implementation of this alternative would not be consistent with adjacent land uses and would not be compatible with adjacent facilities and therefore this alternative was eliminated from further consideration.

One alternative for Project 9 (Lodging Facility Project) included creating a community-centered district in this area. However, this alternative would not have allowed for pedestrian connections to surrounding districts and would not be compatible with security forces training missions conducted in this area. This alternative was also eliminated from further consideration.

Based on the selection standards presented in Section 2.3.1, the scope and locations for each project were determined by installation personnel to be mission supportive, sustainable, and an economical solution. There were no alternatives for Projects 2 through 10 as the projects entail the upgrade of infrastructure, the establishment of lease agreements, or specific building construction requirements. Other than the alternatives for Projects 1 and 6 presented under Alternative 1, no other alternatives met selection criteria as being viable.

2.6 OTHER FUTURE ACTIONS IN THE REGION

Based on discussions with base planning personnel and a review of proposed regional developments, projects identified in the vicinity of Peterson SFB that are reasonably foreseeable and have a reasonably close causal relationship to the Proposed Action include:

- Future on-base roadway improvements;
- Eventual beddown of additional USSF organizations;
- Powers Boulevard Widening Project; and
- Marksheffel Road Widening Project.

Other than proposed development projects addressed in this EA, future actions at Peterson SFB include continued mission activities, which are considered part of the baseline conditions.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

This chapter describes the existing environmental conditions at Peterson SFB as the affected environment and the environmental consequences that could result from each of the ten projects identified in Table 2-1. The affected environment sections provide information to serve as a baseline from which to identify and evaluate the potential environmental changes associated with implementation of proposed development projects at Peterson SFB. The environmental components addressed include relevant natural or human environments that could be affected by the Proposed Action and alternatives.

The region of influence (ROI) to be studied is defined for each resource area affected by the proposed development projects. The ROI determines the geographical area to be addressed as the affected environment. Although Peterson SFB constitutes the ROI limit for some resources, potential impacts associated with certain issues (e.g., air quality) transcend these limits.

3.2 RESOURCES AREAS ELIMINATED FROM CONSIDERATION

Resource areas that are not impacted (40 *CFR* 1501.7(3)) or that have been covered by prior environmental review (40 *CFR* 1506.3) have not been carried forward for further environmental review. The determination of environmental resources to be analyzed versus those not carried forward for detailed analysis is part of the EA scoping process. Council on Environmental Quality and United States Air Force (USAF) regulations (40 *CFR* §1501.7(a) (3) and 32 *CFR* 989.18) encourage project proponents to identify and eliminate resource areas from detailed study that are not important or have no potential to be impacted through implementation of their respective Proposed Action.

The following environmental resource areas were found to have no applicability to the Proposed Action, the alternative action, or the No Action Alternative, as there would be no potential for direct, indirect, or cumulative impacts. Therefore, these environmental resource areas are not carried forward for detailed analysis in this EA.

Airspace – There would be no interactions between airspace and the projects identified in Table 2-1. None of the proposed development projects involve changes to, or use of, airspace. Therefore, the airspace resource area is not carried forward for detailed analysis in this EA.

Noise – The context of the installation where the projects are proposed includes an active runway that is used by both military and commercial aircraft. The only noise that would be generated as part of any of the projects in the Proposed Action would be construction noise, which would occur during the day and only be temporary. Construction noise would be mitigated through the use of sound mufflers on heavy equipment and through limitation of heavy equipment use only during business hours.

Aesthetics and Visual Resources – Implementation of the projects identified in Table 2-1 would not change the visual resources of the area. Proposed improvements are anticipated to be low impact and low visibility. No changes to the aesthetics and visual resources of Peterson SFB or surrounding areas would occur with implementation of the Proposed Action, thus a detailed analysis of aesthetics and visual resources is not necessary.

Hazardous Materials and Wastes – No new or additional chemicals or other hazardous materials would be utilized as part of the Proposed Action; thus, no additional waste would be generated. Any lead-based paint or asbestos containing materials encountered would be handled in accordance with all applicable USAF, state, and federal regulations. None of the proposed development projects would interact with any active or closed Environmental Restoration Program projects. Therefore, a detailed analysis of hazardous materials and wastes is not warranted.

Environmental Justice – Peterson SFB is an active military base, whose residents are nonpermanent officers, enlisted personnel, and their families. There are no low-income or minority populations on the base and no off-base populations would be affected and therefore additional analysis of the environmental justice resource area is not required.

The resource areas analyzed in detail include air quality, biological resources, cultural resources, hazardous materials and wastes, land use, safety, socioeconomics, soils and water resources, and infrastructure. The affected environment and the potential environmental consequences relative to each of these resource areas are described in this chapter.

3.3 AIR QUALITY

3.3.1 Definition of the Resource and Methodology

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of parts per million or micrograms per cubic meter.

The current standards for pollutant concentrations are the National Ambient Air Quality Standards (NAAQS) and state air quality standards established under the Clean Air Act (CAA), as amended (See Table 3-1). These standards represent the maximum allowable atmospheric concentration that could occur while still protecting public health and welfare. The NAAQS provide both short- and long-term standards for the following criteria pollutants: carbon monoxide (CO), nitrogen dioxide, sulfur dioxide (SO_2), particulate matter less than or equal to 10 microns in diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), ozone (O_3), and lead. The Colorado Department of Public Health and Environment (CDPHE) has adopted the NAAQS and a state standard for SO_2 to regulate sources of air pollution in Colorado.

Under the CAA, it is the responsibility of individual states to achieve and maintain the NAAQS. To accomplish this, the U.S. Environmental Protection Agency (USEPA) requires states to develop a State Implementation Plan (SIP). A SIP identifies goals, strategies, schedules, and enforcement actions designed to reduce the level of pollutants in the air and bring the state into compliance with the NAAQS.

All areas of the U.S. are designated as having air quality better than the NAAQS (attainment) or worse than the NAAQS (nonattainment). Areas in which the air quality data are insufficient for the USEPA to form a basis for attainment status are deemed unclassifiable. Such areas are treated as attainment areas until proven otherwise. “Maintenance areas” are those areas previously classified as nonattainment areas but where air pollution concentrations have been successfully reduced to levels below the standard. Maintenance areas are subject to special maintenance plans to ensure compliance with the NAAQS. The USEPA classifies El Paso County as a designated Maintenance Area for CO. However, in its January 14, 2021, letter to CDPHE, the USEPA,

Region 8 clarified that general conformity requirements no longer apply in the Colorado Springs CO Maintenance Area.

Table 3-1. National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide		Primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead		Primary and Secondary	Rolling 3- month average	0.15 µg/m^3(1)	Not to be exceeded
Nitrogen Dioxide		Primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		Primary and Secondary	Annual	53 ppb(2)	Annual mean
Ozone		Primary and Secondary	8-hour	0.070 ppm(3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Matter	$PM_{2.5}$	Primary	Annual	12 µg/m^3	Annual mean, averaged over 3 years
		Secondary	Annual	15 µg/m^3	Annual mean, averaged over 3 years
		Primary and Secondary	24-hour	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	Primary and Secondary	24-hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		Primary	1-hour	75 ppb(4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

Source: USEPA, 2022

$PM_{2.5}$ = particulate matter equal to or less than 2.5 microns in diameter; PM_{10} = particulate matter equal to or less than 10 microns in diameter; ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter

Notes:

1. In areas designated nonattainment for the lead standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m^3 as a calendar quarter average) also remain in effect.
2. The level of the annual nitrogen dioxide standard is 0.053 ppm. It is shown here for the purposes of clearer comparison to the 1-hour standard level.
3. Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards..
4. The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a SIP call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

3.3.1.1 Clean Air Act General Conformity

Title 40 CFR Part 93 Subpart B, General Conformity, requires federal actions to conform to any SIP approved or promulgated under Section 110 of the CAA. The General Conformity rule identifies potential requirements for conformity applicability analyses and formal air conformity determinations for federal actions in nonattainment or maintenance areas. The rule specifies de minimis emission levels by pollutant to determine the applicability of conformity determination

requirements for a project. As described above, because the USEPA, Region 8 clarified that general conformity no longer applies to the Colorado Springs CO Maintenance Area, the General Conformity rule is not applicable to the Proposed Action or its alternatives.

In addition to the criteria pollutants, toxic or hazardous air pollutants (HAPs) are also regulated under the CAA. HAPs are chemicals known to cause or suspected of causing cancer or other serious health effects. The USEPA has identified a total 187 HAPs. HAPs are emitted by a wide range of man-made and naturally occurring sources including fuel combustion in mobile and stationary sources. Unlike the NAAQS for criteria pollutants, federal ambient air quality standards do not exist for HAPs.

Potential impacts to air quality are evaluated with respect to the extent, context, and intensity of the impact in relation to relevant regulations, guidelines, and scientific documentation. The Council on Environmental Quality defines significance in terms of context and intensity in 40 CFR 1501.3. This requires that the significance of an action be analyzed with respect to the setting of the action and based relative to the severity of the impact.

For attainment area criteria pollutants, the analysis conservatively uses the conformity de minimis threshold(s) for maintenance areas as an initial indicator of the local significance of potential impacts to air quality. These proposed indicator thresholds only provide a clue to the potential impacts to air quality (100 tons per year). If projected emissions exceed an indicator threshold, further analysis was conducted to determine whether impacts were significant. In such cases, if emissions (1) do not contribute to an exceedance of an ambient air quality standard or (2) conform to the approved SIP, then impacts would not be significant.

The USAF Air Conformity Applicability Model (ACAM) version 5.0.17b was used to estimate air emissions that would be generated by proposed construction and operational activities (Solutio Environmental, Inc., 2020). Activity data developed for each alternative were used as inputs for ACAM. Appendix B includes ACAM reports that detail the calculations of criteria pollutant emissions and greenhouse gases (GHGs) that would occur from proposed activities for each project alternative.

GHGs were included in the analysis. The primary source of carbon dioxide emissions would be fuel combustion from equipment and worker vehicles during construction activities. Air quality calculations are contained in Appendix B.

3.3.2 Affected Environment

Peterson SFB currently operates under a Title V Operating Permit (Permit No. 95OPEP147), which regulates air emissions from stationary sources. Peterson SFB is considered a major source of criteria pollutants under the Title V program because it has the potential to emit more than 100 tons per year of precursor pollutants for O_3 (volatile organic compounds [VOCs] and nitrogen oxides [NO_x]) and PM_{10}. Peterson SFB is not subject to Prevention of Significant Deterioration (PSD) review requirements because the actual or potential emissions of any criteria pollutant do not exceed 250 tons per year (Peterson AFB, 2011).

The 2015 stationary source emission inventory for Peterson SFB shows that the on-base emission source categories include external and internal combustion sources such as boilers and generators; fire training; fuel storage/dispensing; other operational sources such as chemical usage, welding, and woodworking; and fugitive emissions such as cooling towers. Table 3-2 summarizes the actual emissions generated by Peterson SFB for calendar year 2015 (Peterson AFB, 2016).

Table 3-2. Peterson SFB Emissions Inventory, 2015 (ton/year)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$	SO_X	VOCs	HAPs	CO_2 [1]
Abrasive Cleaning	-	-	<0.001	<0.001	-	-	-	-
Aboveground Storage Tanks	-	-	-	-	-	0.284	0.011	-
Miscellaneous Chemical Use	-	-	-	-	-	0.794	0.324	-
Cooling Towers	-	-	0.696	0.418	-	-	-	-
Degreasing/Solvent Cleaning	-	-	-	-	-	2.710	-	-
External Combustion	8.753	10.206	0.776	0.776	0.061	0.561	0.014	-
Fuel Dispensing	-	-	-	-	-	13.000	0.429	-
Fuel Loading Racks	-	-	-	-	-	<0.001	<0.001	-
Fire Training	0.066	0.240	0.044	0.041	<0.001	0.104	0.003	-
Internal Combustion	0.510	1.968	0.084	0.084	0.037	0.084	0.001	-
Jet Engine Testing	0.505	0.301	0.029	0.026	0.045	0.323	-	-
Herbicide/Pesticide Application	-	-	-	-	-	0.014	-	-
Surface Coating	-	-	0.013	0.012	-	0.051	0.012	-
Underground Storage Tank	-	-	-	-	-	3.818	0.132	-
Welding	-	-	0.002	0.002	-	-	<0.001	-
Woodworking	-	-	0.289	0.219	-	-	-	-
Total Base-wide Emissions	**9.655**	**12.716**	**1.930**	**1.578**	**0.143**	**21.743**	**0.932**	**11,360**

Source: Peterson AFB, 2016.
- = none or negligible; CO = carbon monoxide; CO_2 = carbon dioxide; HAP = hazardous air pollutant; NO_X=nitrogen oxide; PM_{10} = particulate matter equal to or less than 10 microns in diameter; $PM_{2.5}$ = particulate matter equal to or less than to 2.5 microns in diameter SO_X = sulfur oxide; VOC = volatile organic compound
Note:
1. metric tons

3.3.2.1 Greenhouse Gas Emissions

GHGs are compounds that contribute to the global greenhouse effect. The greenhouse effect is a natural phenomenon where gases trap heat within the surface-troposphere (lowest portion of the earth's atmosphere) system, causing heating at the surface of the earth. The primary long-lived GHGs directly emitted by human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). The heating effect from these gases is considered the probable cause of the global warming (USGCRP, 2018).

Global warming and climate change can affect many aspects of the environment. The USEPA Administrator recognized potential risks to public health or welfare and signed an endangerment finding regarding GHGs under Section 202(a) of the CAA (USEPA, 2009), which found that the current and projected concentrations of the six key GHGs in the atmosphere (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) threaten the public health and welfare of current and future generations. To estimate global warming potential (GWP), all GHGs are expressed relative to a reference gas, CO_2, which is assigned a GWP equal to 1. All GHGs are multiplied by their GWP and the results are added to calculate the total equivalent emissions of CO_2 (CO_2e). However, the dominant GHG gas emitted is CO_2, mostly from fossil fuel combustion. This EA considers CO_2 as the representative GHG emitted from proposed activities.

Climate change presents a global problem caused by increasing global atmospheric concentrations of GHG emissions and the current state of the science surrounding it does not support determining the global significance of local or regional emissions of GHGs from a particular action. Nonetheless, GHG emissions resulting from the project alternatives are quantified in this EA for

purposes of disclosing the local net effects of the action and for its potential usefulness in making reasoned choices among alternatives.

3.3.2.2 Stationary and Mobile Source Emissions

New major stationary sources associated with the development projects at Peterson SFB would be subject to PSD and/or nonattainment pollutant New Source Review programs to ensure that these sources are constructed without significant deterioration of the air in the area. The U.S. EPA oversees programs for stationary source operating permits (Title V) and for new or modified major stationary source construction and operation. Mobile sources are regulated under the CAA Title II more broadly through enforcing emissions standards on manufactured vehicles and fuel standards.

3.3.3 Environmental Consequences

3.3.3.1 Proposed Action

3.3.3.1.1 Construction Activities

Air quality impacts associated with construction activities under the Proposed Action would occur from (1) combustive emissions generated by fossil fuel-powered equipment, trucks, and worker commuter vehicles and (2) fugitive dust emissions (PM_{10}/$PM_{2.5}$) from the operation of equipment on exposed soil. Due to the uncertainty of the scheduling for many of the proposed development projects, the air quality analysis assumed that construction of all projects would begin in year 2023 and that construction of the final project would be completed by the end of year 2025. This approach is conservative, as it maximizes the amount of annual construction emissions that would occur in a calendar year. It is expected that the actual construction schedule would result on lower levels of annual construction effort and associated emissions than those identified in the analysis.

Inclusion of best management practices into proposed construction activities, such as watering exposed surfaces twice per day or frequently enough to keep the surface moist at all times, would reduce fugitive dust emissions generated from the use of construction equipment on exposed soil by at least 50 percent from uncontrolled levels (Countess Environmental, 2006). Construction activities also would comply with the fugitive dust control requirements of the CDPHE and Chapter 5 (Air Quality) of the Regulations of the El Paso County Board of Health. In addition, a Land Development Permit would be obtained from the CDPHE Air Pollution Control Division for construction projects that would take longer than 6 months or are larger than 25 contiguous acres. Any demolition activities, such as for the removal of the North Gate entry structure, also would comply with Colorado Air Quality Control Commission Regulation Number 8 for the removal and handling of asbestos, if it is determined to be present.

Table 3-3 presents estimates of peak annual emissions that would occur from construction of the development projects as part of the Proposed Action at Peterson SFB. These data show that analysis of a compressed construction schedule would result in peak annual construction emissions (in year 2023 or 2024, depending on the pollutant) that would remain well below all annual indicator thresholds. Therefore, construction of the Proposed Action would not result in significant impacts to criteria pollutant levels.

Proposed construction equipment would emit HAPs that could impact public health. The main source of HAPs would occur in the form of particulates from the combustion of diesel fuel. Due to the mobile and intermittent operation of diesel-powered construction equipment, there would be minimal ambient impacts of HAPs in a localized area.

Table 3-3. Peak Annual Construction Emissions – Peterson SFB Multi-Projects Proposed Action

Pollutant	Annual Emissions (tons/year)	Indicator Threshold (tons/year)	Does the Action Exceed the Threshold?
VOCs	3.96	100	No
NO_x	15.51	100	No
CO	17.31	100	No
SO_x	0.04	100	No
PM_{10}	68.78	100	No
$PM_{2.5}$	0.63	100	No
CO_2e	4,182	NA	NA

3.3.3.1.2 Operational Activities

Air quality impacts associated with operational activities under the Proposed Action would occur from (1) natural gas-fired space and water heaters and emergency diesel-powered generators installed in new buildings and (2) new personnel commuting activities. The air quality analysis conservatively assumed that the action would reach full operations and resulting emissions in 2025, after the completion of all development projects. Sources would operate in compliance with applicable air quality regulations, emission limitations, and permitting requirements.

Table 3-4 presents estimates of peak annual emissions that would occur from the operation of the Proposed Action at Peterson SFB. These data show that analysis of a compressed construction schedule would result in peak annual operational emissions in year 2025 that would remain well below all annual indicator thresholds. Therefore, operation of the Proposed Action would not result in significant impacts to criteria pollutant levels. In addition, the proposed operational sources would result in minor amounts of HAPs and resulting ambient impacts.

Table 3-4. Peak Annual Operational Emissions – Peterson SFB Multi-Projects Proposed Action

Pollutant	Annual Emissions (tons/year)	Indicator Threshold (tons/year)	Does the Action Exceed the Threshold?
VOCs	4.51	100	No
NO_x	6.13	100	No
CO	50.71	100	No
SO_x	0.05	100	No
PM_{10}	0.29	100	No
$PM_{2.5}$	0.28	100	No
CO_2e	6,951	NA	NA

3.3.3.1.3 Mitigations

To minimize air quality impacts from the Proposed Action and to assist in GHG emission reductions, Peterson SFB would implement the following mitigation measures, where feasible:

- Use of zero- and low-emitting equipment and vehicles during construction and operations;
- Offer an employee commuter trip reduction program; and,

- Collaborate with the Pikes Peak Area Council of Governments to meet O_3 reduction goals established in the Pikes Peak Region Ozone Advance Program (Pikes Peak Area Council of Governments, 2021).

3.3.3.2 Alternative 1

Implementation of Alternative 1 with COA 1 for Project 1 (North Gate Entry Control Complex) would produce peak annual construction emissions that are nominally higher than those estimated for the Proposed Action. Implementation of Alternative 1 with COA 3 for Project 1 would produce peak annual construction emissions that are a few percent higher (mainly $PM_{10}/PM_{2.5}$ as fugitive dust) than those estimated for the Proposed Action but yet still below all annual indicator thresholds. Therefore, construction of Alternative 1 would not result in significant impacts to criteria pollutant or HAP levels. Operation of Alternative 1 would result in nearly identical air quality impacts as those estimated for the Proposed Action. Therefore, operation of Alternative 1 would also not result in significant impacts to criteria pollutant or HAP levels.

3.3.3.2.1 Mitigations

To minimize air quality impacts from Alternative 1 and to assist in GHG emission reductions, Peterson SFB would implement the mitigation measures identified for the Proposed Action in Section 3.3.3.1.3, where feasible.

3.3.3.3 No Action Alternative

The No Action Alternative would not result in any additional impacts to air quality beyond the scope of normal conditions and influences within the ROI.

3.3.3.4 Cumulative Effects

The Proposed Action, in combination with reasonably foreseeable actions would not be expected to significantly affect air quality or result in exceedances of the NAAQS. The COSA is currently in the process of completing their master plan update. Although a number of projects, including pavement improvements, facility relocation, and concourse expansion, are planned as part of the master plan update, these projects are planned to occur over a number of years and implementation of these projects combined with the projects identified in this document is not expected to result in significant air quality impacts. In addition to the airport projects, there is also the future potential for construction of the Space Command Headquarters facility on Peterson SFB. However, implementation of the Space Command Headquarters facility combined with the projects identified in Table 2-1 would also not result in significant impacts to air quality.

Predictions of long-term environmental impacts across the U.S. due to increased atmospheric GHGs include rising temperatures, sea-level rise, changing weather patterns (e.g., increases in severity of storms and droughts), changes in local and regional ecosystems (e.g., potential loss of species), and a substantial reduction in winter snowpack (USGCRP, 2018). Colorado and the region of Peterson SFB could experience a continuing of recent upward trends in average temperatures and extreme heat, an increase in the occurrence and severity of wildfires, a decrease in spring precipitation, and compromises to water supplies and hydropower due to a reduced winter snowpack. While Peterson SFB has adapted its operations to reduce annual water uses and manage the recent temperature changes, exacerbation of climate conditions in the future could increase the cost of proposed operations and could impede operations during extreme events. Additional

measures could be needed to mitigate such impacts over the operational life expectancy of the Proposed Action.

3.4 BIOLOGICAL RESOURCES

3.4.1 Definition of the Resource and Methodology

For the purposes of this EA, sensitive and protected biological resources include plant and animal species that are federally (USFWS) or state (Colorado Parks and Wildlife [CPW]) listed for protection. Identifying which species occur in an area affected by an action can be accomplished through literature reviews and coordination with appropriate federal and state regulatory agency representatives, resource managers, and other knowledgeable experts. The ROI (project action area) for biological / natural resources includes the footprint of the projects shown in Figure 2-1.

The analysis of biological resources considered potential impacts to vegetation communities and wildlife, including special status species. The plant and animal resources potentially affected are identified based on vegetation community type and previously documented occurrence. Projected conditions were compared against baseline conditions within the context of regional habitat availability and species populations and a determination was made as to whether impacts would be adverse. An adverse impact would degrade habitat quality or diminish species health. Impacts to biological resources would be considered significant if implementation of the proposed development projects would jeopardize the continued existence of a species or result in an overall decrease in population diversity, abundance, or fitness.

3.4.2 Affected Environment

Biological resources include both native and non-native species of plants and animals in the project areas. These resources are described in the base's INRMP (Peterson AFB, 2020b). For discussion purposes, these are divided into vegetation, wildlife, threatened and endangered species, and sensitive habitats. Human activity has altered portions of the natural environment at Peterson SFB and surrounding areas through grading, paving, and construction of buildings. Data sources for biological resources include published literature, and information provided by Peterson SFB, the USFWS, and CPW.

Biological resources on Peterson SFB are protected by the Federal Endangered Species Act (16 *USC* Parts 1531–1544), the Migratory Bird Treaty Act (MBTA) (16 *USC* Part 703 et seq.), and the Bald and Golden Eagle Protection Act (16 *USC* Part 668a-668d). The Endangered Species Act specifically prohibits "taking" (e.g., killing, harming, or harassing) a federally listed endangered or threatened species. The MBTA specifically prohibits take of migratory birds, including nests and eggs, as well as possession of eggs, nests, or any part of a covered species. The Bald and Golden Eagle Protection Act specifically prohibits taking bald and golden eagles including nests and eggs of these species.

3.4.2.1 Vegetation

Descriptions of vegetation and plant community associations at Peterson SFB are provided in the base's INRMP (Peterson AFB, 2020b). Peterson SFB is located along the western edge of the Great Plains and along the eastern foothills of the Rocky Mountains. The majority of lands on and surrounding Peterson SFB have been impacted by construction activities (e.g., excavation, grading, and bulldozing), landscaping, and agricultural practices. These activities have permanently altered the native habitats on base.

Most of Peterson SFB consists of a mosaic of highly managed traditional turf, shrub and tree landscaping, interspersed with lower maintenance areas featuring swathes of rock mulch or xeric grasses and native forbs. Bluegrass lawns are maintained along principal streets and boulevards, and around living quarters. Ponderosa (*Pinus ponderosa*) and Austrian pine (*P. nigra*), green ash (*Fraxinus pennsylvanica*), Russian olive (*Elaeagnus angustifolia*), Siberian elm (*Ulmus pumila*) and other common horticultural species and varieties are planted to create a park-like environment; numerous species and varieties of shrubs are utilized for building foundation treatments.

The natural vegetation of Peterson SFB, which exists only on portions of Peterson East, is comprised of mid- to tallgrass prairie within a life zone largely dominated by shortgrass plains. Needle-and-thread (*Hesperostipa comata*) appears to be the dominant grass at Peterson East and the rough at the golf course. Buffalo grass (*Buchloe dactyloides*) and to a lesser extent blue grama (*Chondrosum gracile*) are present at Peterson East and on the main part of the base, the former especially planted in areas for low maintenance. Six-weeks fescue (*Vulpia octoflora*), Western wheatgrass (*Pascopyrum smithii*) and Indian ricegrass (*Achnatherum hymenoides*) can also be found locally. Prickly pear and brittle cacti (*Opuntia polyacantha* and *O. fragilis*, respectively) are common subshrubs at Peterson East and infrequent elsewhere on base, while suppressed yucca (*Yucca glauca*) and fringed sage (*Artemisia frigida*) can also occasionally be found on Peterson East (Peterson AFB, 2018b).

3.4.2.2 Wildlife

Information on wildlife occurring on Peterson SFB is provided in the INRMP (Peterson AFB, 2020b). Common amphibians and reptiles found at Peterson SFB include the Woodhouse's toad (*Bufo woodhousii*), prairie lizard (*Sceloporus undulatus*), bullsnake (*Pituophis catenifer*), and the western terrestrial garter snake (*Thamnophis elegans*) (Peterson AFB, 2020b).

Most native North American birds, their eggs, and nests are protected by the MBTA of 1918, as amended, and the Bald and Golden Eagle Protection Act. Avian species that have been documented on Peterson SFB are very diverse. The INRMP identifies fifty-seven different bird species that have been documented on Peterson SFB.

Other wildlife including pronghorn (*Antilocapra americana*), mule deer (*Odocoileus hemionus*) and coyote (*Canis latrans*) can be found nearby, and red fox (*Vulpes vulpes*) have been observed on the Silver Spruce Golf Course (Peterson AFB, 2018b). Active black-tailed prairie dog (*Cynomys ludovicianus*) burrows have been observed on the Peterson East extension acreage. The plains pocket gopher (*Geomys bursarius*), Ord's kangaroo rat (*Dipodomys ordi*), prairie and meadow voles (*Microtus ochrogaster* and *M. pennsylvanicus*, respectively), and deer mice (*Peromyscus* spp.) are present at least in neighboring grassland areas (Peterson AFB, 2020b).

3.4.2.3 Threatened and Endangered Species

Previous surveys, the Peterson SFB INRMP (Peterson AFB, 2020b), the USFWS Information for Planning and Consultation (IPaC) System (Appendix C), and the CPW website were reviewed for the most up-to-date information concerning federally and state-threatened and endangered species that have the potential to occur on or adjacent to Peterson SFB.

The USFWS identified 9 threatened, endangered, or candidate species in the project action area. The full species list is included in Appendix C and a brief description of the species and their status on Peterson SFB is summarized below.

In 2018, Colorado State University, in conjunction with the Colorado Natural Heritage Foundation, completed flora and fauna surveys on Peterson SFB. Between June 2017 and September 2018, no federally threatened or endangered animals or plants or state species of special concern were found on Peterson SFB. The black-tailed prairie dog (*Cynomys ludovicianus*), a species of Special Concern in Colorado, was observed on grassland areas directly adjacent to and east of Peterson East (CSU, 2018). The only other species that was identified in the general area of Peterson SFB was the state-threatened burrowing owl (*Athene cunicularia*) (Peterson AFB, 2020b; USFWS, 2021a).

The federally endangered gray wolf (*Canis lupus*) occurs in a wide range of habitats and lone, dispersing gray wolves may be present throughout the State of Colorado. Projects whose activities include a predator management program should consider impacts to this species (USFWS, 2022).

The Eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*) is a federally threatened species that primarily breeds in coastal locations (including salt marshes, coastal prairies, and hay fields). Some inland wetlands may also be used as breeding habitat. No Eastern black rails have been documented at Peterson SFB and no known wetland habitat is present within the ROI.

The piping plover (*Charadrius melodus*), a federal and state-threatened species, prefers sandy upper beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments. Although several ponds are situated on and adjacent to Peterson SFB, the USFWS (Appendix C) indicates that this species is only a concern in the North and South Platte, and Laramie River basins of Nebraska. This species is not known to occur on Peterson SFB and no suitable habitat is present on the installation (Peterson AFB, 2020b).

No aquatic habitat is located within the ROI and no habitat is present for the federally threatened greenback cutthroat trout (*Oncorhynchus clarkii stomias*) or federally endangered pallid sturgeon (*Scaphirhynchus albus*).

The federal candidate monarch butterfly (*Danaus plexippus*) is a species of butterfly with statewide occurrence. During breeding season, monarchs lay their eggs exclusively on milkweed (*Asclepias* spp.) plants. Larvae of the species then feed on milkweed before they pupate into a chrysalis and then emerge as adults. Adult monarchs feed from the nectar of a variety of flowers. A milkweed survey of Peterson SFB was conducted in 2021 and identified one area in the southeastern portion of the base that contained milkweeds (USFWS, 2021b).

The federally threatened Ute ladies'-tresses (*Spiranthes diluvialis*) are adapted to early- to mid-seral, moist to wet conditions, where competition for light, space, water, and other resources is normally kept low by periodic or recent disturbance events. Major occupied habitat types include alluvial banks, point bars, oxbows, river floodplains, shores of lakes and reservoirs, and groundwater-fed spring habitats. This type of habitat is not present in the ROI. In addition, this species was not observed in targeted species surveys on Peterson SFB (CSU, 2018).

The federally threatened western prairie fringed orchid (*Platanthera praeclara*) is most commonly found in full sun on moist to wet calcareous (calcium-rich, or alkaline) tallgrass prairies and sedge meadows (many flooded for 1 to 2 weeks per year). It most often grows in relatively undisturbed grasslands but can also be found in moderately disturbed sites such as roadside ditches. This type of habitat is not present in the ROI and the species is not anticipated to be present in the ROI.

Other species that were considered as part of this EA include the burrowing owl, the prairie dog, the mountain plover (*Charadrius montanus*), and the bald eagle (*Haliaeetus leucocephalus*). The burrowing owl, a state-threatened species, is primarily found in grasslands and mountain parks, usually in or near prairie dog towns. They also use well-drained, steppes, deserts, prairies, and agricultural lands (CPW, 2022). Burrowing owls have been documented on the Peterson East expansion area leased from the COSA (USFWS, 2021b).

In 2021, Peterson SFB completed four (April 15, April 30, May 10, and May 14) different prairie dog mapping and burrowing owl surveys on the Peterson East expansion area leased from the COSA. During these surveys, it was noted that prairie dog expansion was minimal, and the overall footprint was similar to the past. Only one burrowing owl was observed during the final survey on May 14. During this survey, it was noted that there was no encroachment of prairie dogs into the adjacent housing area behind the perimeter fence on Peterson SFB (USFWS, 2021a).

The mountain plover is a state species of special concern that occurs in short grass prairie habitats. Mountain plovers often nest in areas with sparse vegetation or bare ground, such as prairie dog towns. While there are no known occurrences of the mountain plover in the ROI, no species-specific surveys have occurred in these areas.

The federally delisted bald eagle is considered a species of special concern in the State of Colorado and is protected under the Bald and Golden Eagle Protection Act. This species occurs around lakes and rivers in the winter. It typically feeds on fish but is also known to feed on small mammals, including prairie dogs. Generally, winter habitat preferences for the bald eagle include a readily available food source associated with ice-free waters, diurnal perches, nocturnal roost trees, and low human activity. The bald eagle is a transient visitor to the area in the winter. However, the bald eagle is not known to breed in the area.

3.4.2.4 Sensitive Habitats

Sensitive habitats are those areas considered for protection due to their ecological value. They include wetlands, critical habitat for protected species, plant communities of limited or unusual distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer/winter habitat).

Peterson SFB, in coordination with the U.S. Army Corps of Engineers (USACE), conducted a field survey to identify jurisdictional wetlands on base in 2001. The USACE determined that there are no legally defined wetlands on Peterson SFB. Golf Course Ponds 1, 2, and 3 were listed on the 1975 National Wetlands Inventory (NWI) Map; however, they are not considered wetlands since they are man-made impoundments with no naturally occurring wetland vegetation or hydric soils, and they are rubber-lined. The East Fork of Sand Creek, which crosses the northwest corner of the base, did not meet the USACE wetland criteria (Peterson AFB, 2020b). No wetland surveys have occurred in the portions of the ROI proposed for lease.

A small man-made potential wetland, as determined by the presence of cattails (*Typha latifolia*), exists on Peterson East. This potential wetland was apparently created by a storm drainage pipe emptying into a shallow depression in this area. The area is not identified as a wetland on NWI maps (Peterson AFB, 2020b). None of the proposed development projects occur near this area.

The USACE did determine the East Fork of Sand Creek to be a water of the U.S. and it is protected under the purview of Section 404 of the Clean Water Act (Peterson AFB, 2020b). Although any

land disturbance in or near the East Fork of Sand Creek would require USACE approval, none of the proposed development projects occur near this area.

There is one Colorado Natural Heritage Program fully-tracked plant community recorded on Peterson SFB, the Mesic Tallgrass Prairie community. This occurrence is considered to be a good occurrence of a state imperiled plant community. The Mesic Tallgrass Prairie community occurrence consists of three small areas on Peterson East, occupying approximately 25 acres and are part of a larger occurrence surrounding Peterson SFB and the COSA (Peterson AFB, 2020b).

3.4.3 Environmental Consequences

3.4.3.1 Proposed Action

With the exception of the two lease projects, all of the proposed development projects would occur in developed, improved, or maintained areas. Although the two lease projects (Projects 3 and 4) are in undeveloped areas, there are no construction or development plans at this time for these two projects. Examples of developed areas on Peterson SFB include existing facilities and associated parking lots, turf, and landscaped or mowed parcels. Although a relatively small number of wildlife species could occur in such developed areas (generally those tolerant of human presence and activity), the limited habitat value substantially decreases the biological importance of these sites. Therefore, impacts to vegetation and wildlife resulting from projects located in developed or maintained areas are considered minor.

3.4.3.1.1 Vegetation

Construction activities associated with the Proposed Action would primarily affect disturbed/ developed areas but could result in the loss of some shortgrass prairie areas. The shortgrass prairie areas are situated on Peterson East and provide habitat for a limited number of common and widespread species. Shortgrass prairie habitat dominates the region east of Peterson SFB; therefore, loss of small areas of shortgrass prairie habitat on the base would not result in significant impacts. No significant impacts to vegetation are anticipated.

Any areas of temporary disturbance that would not be paved or landscaped would be revegetated with the approved seed mix provided in the INRMP. Timely attention to revegetation of disturbed sites would help minimize the spread of noxious weeds, which tend to invade newly disturbed areas.

3.4.3.1.2 Wildlife

Wildlife species that occupy shortgrass prairie habitat that would be disturbed during construction activities could be displaced under the Proposed Action. Species occupying most of Peterson SFB are common and widespread within the ROI, and loss of this habitat would not result in a significant impact to these wildlife species.

3.4.3.1.3 Threatened and Endangered Species

No federally threatened and endangered species are known to occur within the ROI and Peterson SFB has determined that the Proposed Action would have no effect to federally listed species.

The CPW stated that the majority of the project area is shortgrass prairie that provides habitat for a variety of species. Their letter stated that if black-tailed prairie dog towns are present within any of the project areas, there is the potential that burrowing owls and mountain plovers could also be present. For burrowing owls, the CPW recommended a survey of the prairie dog towns be

conducted to determine the presence or absence of burrowing owls. If nests are identified, no human encroachment would occur within 660 feet of nesting burrows from March 15 through October 31. If burrowing owls only occupy the site and no nests are identified, earthmoving and other disturbance would be delayed until late fall after the owls have migrated.

Surveys should be conducted for mountain plover habitat and plover nests in the project areas. If it is determined that plover nests are in the project area, construction activities would be planned outside of their critical nesting period from April 1 through August 15.

Projects 2, 3, 4, 8 and 10 would occur in areas potentially occupied by the state-threatened burrowing owl. Projects 3 and 4 are only lease projects and no construction or development disturbance would occur in these areas. Prior to development, surveys for threatened and endangered species would be conducted. In addition, prairie dog control would be implemented to clear areas prior to development. Impacts to burrowing owls could be avoided by planning construction to avoid the presence of burrowing owls. Therefore, significant impacts to threatened and endangered species are not anticipated to result from implementation of the projects identified in Table 2-1.

Efforts have been made to modify the chain-link fence that extends along the Peterson SFB eastern perimeter to prevent prairie dogs from burrowing beneath the fence and onto the installation. Surveys conducted in 2017 and 2018 did not show any movement of prairie dogs onto the installation. Elimination of prairie dog burrows on the installation effectively minimizes the chance for burrowing owls to occur on the installation by eliminating their habitat. Nesting burrowing owls and other migratory bird species protected under the MBTA have the potential to breed in shortgrass prairie habitat. Projects 2, 3, 4 8 and 10 would occur on disturbed land adjacent to shortgrass habitat. If determined necessary, conservation measures focusing on avoidance and minimization of adverse impacts to breeding, wintering, and migratory birds would be implemented during project activities.

3.4.3.1.4 Sensitive Habitats

Peterson SFB does not contain any jurisdictional wetlands; however, the East Fork of Sand Creek, which flows through the northwestern corner of the installation, is considered a water of the U.S. None of the proposed development projects are located near this area. Waters of the U.S. are managed under Section 404 of the Clean Water Act. If a project were to effect wetlands or waters of the U.S., a Section 404 permit would be required. Section 401 water quality certification would also be needed as part of a nationwide permit application.

There is one Colorado Natural Heritage Program fully-tracked plant community recorded on Peterson SFB, the Mesic Tallgrass Prairie community. The Mesic Tallgrass Prairie community occurrence consists of three small areas on Peterson East, occupying approximately 25 acres and that are part of a larger occurrence surrounding Peterson SFB and the COSA. With the exception of the two lease projects (Projects 3 and 4), none of the proposed developments are planned to occur in the Mesic Tallgrass Prairie areas on Peterson East. Because there would be no development or construction disturbance with the lease projects, significant impacts to sensitive habitats would not result from implementation of any of the projects.

3.4.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with

a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to biological resources.

3.4.3.3 No Action Alternative

Under the No Action Alternative, none of the IDP projects would be implemented and there would be no interaction to biological resources from IDP related projects. Therefore, no adverse impacts to biological resources would occur. Existing biological resources at Peterson SFB would continue to be managed in accordance with the INRMP.

3.4.3.4 Cumulative Effects

The Proposed Action, in combination with foreseeable actions, would not be expected to result in significant impacts to biological resources. The COSA is currently in the process of completing their master plan update. Although a number of projects, including pavement improvements, facility relocation, and concourse expansion, are planned as part of the master plan update, these projects are planned to occur over a number of years and implementation of these projects combined with the projects identified in this document is not expected to result in significant impacts to biological resources. In addition to the airport projects, there is also the future potential for construction of the Space Command Headquarters facility on Peterson SFB. However, implementation of the Space Command Headquarters facility combined with the projects identified in Table 2-1 would also not result in significant impacts to biological resources.

3.5 CULTURAL RESOURCES

3.5.1 Definition of the Resource and Methodology

Cultural resources are districts, sites, buildings, structures, or objects considered important to a culture or community for scientific, traditional, religious, or other purposes. They include archaeological resources, historic architectural/engineering resources, American Indian sacred sites, and traditional resources. Historic properties are any prehistoric, historic, or traditional resource included in or eligible for inclusion in the National Register of Historic Places (NRHP) (36 *CFR* 800.16(l)). The APE for archaeological resources is the discontinuous set of discrete disturbance footprints of each development project and any associated staging areas as shown in Figure 2-1. For historic architectural resources, the APE is defined as the discrete disturbance footprint of each project and 1,000 feet surrounding each footprint.

Impact analysis for cultural resources focuses on assessing whether implementation of the Proposed Action would have the potential to affect cultural resources that are eligible for listing in the NRHP or have traditional significance for tribes. For this EA, impact analysis for cultural resources focuses on, but is not limited to, guidelines and standards set forth in NHPA Section 106's implementing regulations (36 *CFR* 800). Under Section 106 of the NHPA, the proponent of the action is responsible for determining whether any historic properties are located in the area, assessing whether the proposed undertaking would adversely affect the resources, and notifying the SHPO of any adverse effects. An adverse effect is any action that may directly or indirectly change the characteristics that make the historic property eligible for listing in the NRHP. If an adverse effect is identified, the federal agency consults with the SHPO and federally recognized tribes to develop measures to avoid, minimize, or mitigate the adverse effects of the undertaking.

3.5.2 Affected Environment

In compliance with the NHPA, Peterson SFB is in the process of initiating the Section 106 review process with the Colorado SHPO (Appendix A). Consultation is being conducted to determine the appropriate APE as well as to identify any archaeological sites and historic properties within the APE that may be affected by proposed development activities at Peterson SFB.

Only those cultural resources determined to be listed in or eligible for inclusion in the NRHP under cultural resources legislation are subject to protection or consideration by a federal agency. Significant cultural resources, whether they are prehistoric, historic, or traditional in nature, are referred to as "eligible." The term "eligible for inclusion" in the NRHP includes properties formally determined as such by the Secretary of the Interior and other properties that meet NRHP listing criteria. Therefore, sites that meet the criteria, but are not yet evaluated, may be considered potentially eligible to the NRHP and, as such, are afforded the same regulatory consideration as nominated historic properties. Under 36 *CFR* Part 800, historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP. For the purposes of these regulations, the term includes artifacts, records, and remains that are related to, and located within, such properties. As a federal agency, the Air Force is responsible for identifying any historic properties associated with its property.

Archaeological and historic architectural resources at Peterson SFB were characterized using existing survey and analysis information from the Integrated Cultural Resources Management Plan (ICRMP), archaeological survey reports, historic buildings survey reports, local histories, and the records of the NRHP and National Historic Landmarks (Peterson SFB, 2021b). These documents provided information on known locations of significant resources. In compliance with Section 106 of the NHPA, Peterson SFB is consulting with the Colorado SHPO regarding the APE and potential cultural resource concerns relative to the Proposed Action. No adverse effects are anticipated and consultation is ongoing. Correspondence to date is included in Appendix A.

The potential for traditional resources at Peterson SFB was identified using the ICRMP and information provided by base cultural resource management staff. Potentially interested tribes were contacted to request information on potential concerns about the Proposed Action. See Section 3.5.2.3 for additional information regarding tribal contacts.

The assessment of adverse effects considers both the potential for physical damage or destruction of historic properties at the base, and the potential adverse effects of visual intrusions, noise, and vibration on historic properties at the base.

3.5.2.1 Prehistoric and Historic Archaeological Resources

Prior to 2022, nine archaeological surveys had been conducted on Peterson SFB, in addition to five cultural resource surveys conducted within a 1-mile radius of the installation. Six isolated prehistoric artifacts have been found by the various surveys conducted on Peterson SFB; however, no significant prehistoric or historic archaeological sites have been recorded on Peterson SFB (Peterson AFB, 2021b). A recent Class III cultural resource survey and evaluation of 600 acres was completed in June 2022 (Stell, 2022). Archaeologists located three new archaeological sites, one historical isolated find, and one prehistoric isolated find. Six previously recorded archaeological sites were relocated and reevaluated. All sites were determined not eligible for the NRHP.

3.5.2.2 Historic Buildings and Structures

A historic building inventory and evaluation of Peterson SFB was conducted in 1985 (Baker, 1985). Only one site, a complex of five historic buildings (four contributing elements and one non-contributing element) that were part of the original Colorado Springs Municipal Airport (1926–-1941), was identified and recorded. The buildings represent the Spanish Colonial Revival, Art Modern, and Art Deco styles. Historical buildings include the Municipal Terminal Building (Building 981), Broadmoor Hanger (Building 982), City Hanger (Building 979), and the Spanish House/Caretaker Residence (Building 999). Subsequently, this site, 5EP774, was nominated for inclusion in the NRHP. In 1990, the Colorado SHPO concurred that the site was eligible as a historic district, and the nomination form was forwarded to the Keeper of the NRHP in Washington, DC, for consideration. The site was placed in the NRHP in 1996. Building 980 (utility/maintenance building) is listed as part of the Historic District but is a non-contributing element (not eligible for the NRHP as an individual building) due to its somewhat later construction date (about 1950) (Peterson AFB, 2021b). No other buildings at Peterson SFB were determined eligible for inclusion in the NRHP at that time. As described in the ICRMP, the following surveys have been conducted since 1985.

Hoffecker and Whorton, 1998. All facilities dating from 1943 to 1989 were surveyed. Building 880 was determined NRHP-eligible and was later demolished as part of a Section 106 action. All other buildings were evaluated and determined not eligible for listing in the NRHP. The analysis concluded that at that time, all potentially historic structures/buildings at Peterson SFB have been inventoried and evaluated for their National Register eligibility.

Center for Environmental Management of Military Lands (CEMML) 2016. Between July 28 and October 26, 2016, CEMML evaluated 52 buildings from the World War II and Cold War eras (between 1942 and 1969). The evaluation revealed that none of the buildings are NRHP-eligible either individually or as part of a district (Wallace, 2017).

Mead & Hunt Inc., 2017. In 2017, Mead & Hunt Inc. contracted with Texas State University to evaluate around 70 buildings and structures at Peterson SFB and to consider whether the installation qualified as a district/cultural landscape. The survey documented a total of 67 properties as 6 properties on the field survey list were found to be nonextant based on field review. No properties are recommended as individually NRHP eligible for listing and no installation historic district or cultural landscape was identified. As most of the buildings and structures were less than 50 years of age, they were assessed under Criteria Consideration G. As these buildings reach the 50-year threshold for consideration, they should be re-assessed within an NRHP framework under other criteria.

3.5.2.3 Traditional Cultural Resources

Tribal groups identified as having occupied the Peterson SFB vicinity include the Apache Tribe of Oklahoma, Cheyenne and Arapaho Tribes of Oklahoma, Northern Cheyenne Tribe, Comanche Nation of Oklahoma, Kiowa Tribe of Oklahoma, Jicarilla Apache Nation, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Northern Ute Indian Tribe of the Uintah and Ouray Reservation. No traditional cultural properties or sacred places are known within the base boundary or in the properties bordering the installation. Peterson SFB has initiated consultation with these tribes to determine if there are any concerns or issues regarding cultural resources in the vicinity of Peterson SFB.

3.5.3 Environmental Consequences

3.5.3.1 Proposed Action

3.5.3.1.1 Prehistoric and Historic Archaeological Resources

Because of the past severe ground disturbance that occurred during construction of buildings and infrastructure, the potential for discovery of archaeological resources is considered very low. Ten archaeological surveys have taken place on Peterson SFB, in addition to five cultural resource surveys conducted within a 1-mile radius of the installation. Archaeological surveys have not occurred for the proposed lease property, Project 4. Peterson SFB eventually may develop the 168-acre lease but at this time there are no projects funded or planned for that area.

Three resources have been identified within the APE (Site 5EP6394, Site 5EP2178, and Site 5EP.9323). Site 5EP6394 is the remnants of a historic homestead located in the vicinity of Project 2. No intact structures remain of the homestead and Peterson SFB has determined that the site is not eligible for the NRHP (Stell, 2022). Site 5EP2178 is a series of erosion control ditches located in the vicinity of Project 10 and within the land proposed for a lease (Project 3). Site 5EP2178 has been determined not eligible for the NRHP and SHPO concurred with that finding (Peterson SFB, 2021b). The ditches associated with Site 5EP2178 extend into the 10-acre lease (Project 3). Peterson SFB determined that the ditches within the 10-acre lease are also not eligible for listing on the NRHP (Stell, 2022). Site 5EP.9323 is an isolated find and has been determined not eligible for NRHP listing (Stell, 2022).

In the event that unknown archaeological resources are encountered, the construction contractor would immediately suspend work in the immediate area, protect the site in place, and report the discovery to the Peterson SFB Cultural Resources Manager to determine if additional investigation is required. In the event that further investigation is required, any data recovery would be performed in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation* (48 FR 44734-37) and take into account the Advisory Council on Historic Preservation's publication, *Treatment of Archaeological Properties*.

Due to the developed nature of the property and findings of previous surveys on Peterson SFB and surrounding areas, significant impacts to archaeological resources on Peterson SFB are not anticipated. There is the potential that unknown or unevaluated resources may occur in the locations of Projects 3 and 4. The undertaking in those locations is the transfer of property and no development is planned for those locations as part of this action. There is the potential for future development associated with requirements for Delta 3 and Delta 7. These plans are dependent upon the lease acquisition and details are not available at this time. Prior to any future development in these areas, Peterson SFB would consult with the SHPO and conduct additional cultural resource surveys if necessary. Therefore, Peterson SFB has determined that this undertaking would have no adverse effects on archaeological resources.

3.5.3.1.2 Historic Buildings and Structures

The Historic District on Peterson SFB contains five buildings (four contributing elements and one non-contributing element). The four historic buildings include the Municipal Terminal Building (Building 981), Broadmoor Hanger (Building 982), City Hanger (Building 979), and the Spanish House/Caretaker Residence (Building 999). These four buildings, listed as 5EP774, represent the original Colorado Springs Municipal Airport Historic District. No proposed development projects are planned for this area. The nearest project development (Project 9, Lodging Facility Project) is

approximately 1,300 feet north of the Historic District with no clear line of sight to the District. For a similar installation development project proposed in 2017, the Colorado SHPO recommended a finding of "no adverse effect" for resource 5EP774 in their Section 106 response letter dated May 19, 2017 (Appendix A).

No historic buildings or historic structures eligible for listing in the NRHP have been identified in the project areas. Therefore, significant impacts to historic buildings and structures are not anticipated to result from any of the projects described in Table 2-1.

3.5.3.1.3 Traditional Cultural Resources

The Air Force has conducted consultations with representatives of Native American groups as required under the NHPA. No traditional cultural resources, sacred areas, or traditional use areas have been identified at Peterson SFB. Significant impacts to traditional cultural resources are not anticipated to result from implementation of the Proposed Action. To date, only the Northern Cheyenne Tribe has requested additional information on previous surveys conducted at Peterson SFB. None of the other Native American Tribes provided comments regarding the Proposed Action. Peterson SFB will continue to consult with the tribes through the NEPA process (See Appendix A).

3.5.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to cultural resources.

3.5.3.3 No Action Alternative

Under the No Action Alternative, none of the IDP projects would be implemented and there would be no interaction to cultural resources from IDP related projects. Therefore, no adverse impacts to cultural resources would occur. Existing resources at Peterson SFB would continue to be managed in accordance with the ICRMP.

3.5.3.4 Cumulative Effects

The Proposed Action, in combination with foreseeable actions would not be expected to result in significant impacts to cultural resources. The COSA is currently in the process of completing their master plan update. Although a number of projects, including pavement improvements, facility relocation, and concourse expansion, are planned as part of the master plan update, these projects are planned to occur over a number of years and implementation of these projects combined with the projects identified in this document is not expected to result in significant impacts to cultural resources. In addition to the airport projects, there is also the future potential for construction of the Space Command Headquarters facility on Peterson SFB. However, implementation of the Space Command Headquarters facility combined with the projects identified in Table 2-1 would also not result in significant impacts to cultural resources.

3.6 LAND USE

3.6.1 Definition of the Resource and Methodology

Land use describes the way the natural landscape has been modified or managed to provide for human needs. In developed and urbanized areas, land uses typically include residential, commercial, industrial, utilities and transportation, recreation, open space, and mixes of these basic types. Other uses such as mining, agriculture, forestry, and specially protected areas (e.g., monuments, parks, and preserves) are usually found on the fringes or outside of urbanized areas. Plans and policies guide how land resources are allocated and managed to best serve multiple needs and interests. Ordinances and regulations define specific limitations on uses.

The attributes of land use addressed in this analysis include general land use patterns within and surrounding Peterson SFB and the land use regulatory setting. The regulatory setting is the framework for managing land use and approving new development. It pertains to federal, state, and local statutes, regulations, plans, programs, and ordinances.

The following is a list of the typical land use categories found on most USSF bases:

- Airfield (Primary Surface and Clear Zones)
- Airfield (Runways, Taxiways and Aprons)
- Aircraft Operations and Maintenance
- Industrial
- Administrative
- Community Commercial
- Community Service
- Housing (Accompanied)
- Housing (Unaccompanied)
- Medical
- Outdoor Recreation
- Open Space

The ROI for the land use analysis in this EA includes the land area inside the boundary fence of Peterson SFB and land owned by the COSA. The land use analysis does not consider land outside the base and outside of land owned by the COSA because none of the proposed development projects would result in any land use changes to areas outside of the installation.

Potential impacts to land use are evaluated with respect to the extent, context, and intensity of the impact relative to current regulations, guidelines, and scientific documentation. The methodology to assess impacts to individual land uses requires identifying those uses and determining the degree to which they would be affected by each alternative. Significance of potential land use impacts is based on the level of land use sensitivity in affected areas. In general, land use impacts would be significant if they were to:

- Be inconsistent or in noncompliance with applicable land use plans or policies;
- Preclude the viability of existing land use;
- Preclude continued use or occupation of an area;
- Be incompatible with adjacent land uses or land uses in the vicinity to the extent that public health or safety is threatened; or,
- Conflict with airfield planning criteria established to ensure the safety and protection of human life and property.

3.6.2 Affected Environment

This section describes the land use and aesthetics for Peterson SFB and surrounding areas. The ROI includes Peterson SFB and potentially affected adjacent properties. Peterson SFB is located in El Paso County, Colorado, approximately 7 miles east of downtown Colorado Springs, Colorado (see Figure 1-1). The greater metropolitan Colorado Springs area hosts high technology businesses and several military installations. Other major military installations in the area include the U.S. Air Force Academy, Schriever SFB, Cheyenne Mountain Space Force Station, and Fort Carson. Land uses north of Peterson SFB include recreational, open space, commercial, and residential. To the east is primarily open space and a runway/taxiway for the COSA. The COSA is situated south of the base. To the west is industrial, commercial, and open space.

Land use planning near Peterson SFB has been a primary focus of the El Paso County, the City of Colorado Springs, the COSA, and the USSF. In 2021, El Paso County completed the El Paso County Master Plan. This plan acknowledges a population increase of nearly 250,000 people by 2050. El Paso County will need to accommodate the growth in certain areas while maintaining the special character, unique places, and environmental and natural amenities that have defined this region (El Paso County, 2021). El Paso County recognizes that Peterson SFB is an important part of the county, and the plan specifically states that future development in the county should consider potential impacts to Peterson SFB.

Land use within Peterson SFB has been classified into 13 categories based on the types of activities and associated uses that occur. The Airfield and associated Airfield Operations and Maintenance categories are the predominant land uses in the south-central portion of the base. The Airfield category includes the taxiways and aprons. Peterson SFB conducts flying operations using the Colorado Springs Municipal Airport runways through a joint use agreement which are owned and maintained by the City of Colorado Springs (Peterson AFB, 2018b).

Peterson SFB also has a zoned Special Space Mission area, occupied by activities performing intelligence, research and development, among other functions in direct support of the space mission. Special Space Missions land use is found at three locations on Peterson SFB: the two Space Warning Systems Centers, located in buildings 1840 and 1844 situated west of Peterson Boulevard near the North Gate; the Combined Intelligence Center facility, near the Base Museum; and the Centralized Integrated Support Facility located on Peterson East (Peterson AFB, 2018b).

Other land use categories found on the base include, Administrative and Industrial which are dispersed throughout Peterson SFB and are compatible with surrounding land uses. A variety of uses are located in the north-central part of the base, including Community (Commercial), Community (Services), Housing-Accompanied, Housing–Unaccompanied, and Medical. Open Space and Outdoor Recreation include undeveloped areas along the perimeter of Peterson SFB and include Silver Spruce Golf Course located in the southeast corner of the base, the two youth ball fields adjacent to the Main Gate, the south- centrally located eagle park, the football field/running track/par course trail located adjacent the base Fitness Center, and Freedom Fields (four softball fields and a playground) located on the north side of the base (Peterson AFB, 2018b).

Peterson SFB utilizes adopted plans, programs, and the current mission, as guides to land use planning. Base plans and studies present factors affecting both on- and off-base land use and include recommendations to assist on-base officials as well as local community leaders in ensuring compatible development. The Peterson SFB IDP (Peterson SFB, 2021a) provides an overall perspective concerning development opportunities and constraints. The base's ADPs provide

focused information on the future organization and circulation of personnel, buildings, and equipment within portions of the base.

The proposed development projects would primarily occur in the community commercial land use areas and existing mission facilities on Peterson SFB and Peterson East. FAA safety factors and aircraft noise contours have been delineated for Peterson SFB and for areas adjacent to the base. The noise contours and safety standards provide restrictions to building heights, and establishment of noise-sensitive receptors (e.g., hospitals, schools, etc.) and other incompatible uses (City of Colorado Springs, 2001).

3.6.3 Environmental Consequences

3.6.3.1 Proposed Action

The proposed development projects would all be compatible with existing land uses surrounding the project areas. The proposed development projects would also be consistent with the Peterson SFB ADPs for the installation. New facilities would incorporate appropriate antiterrorism and force protection setback and adequate vehicle parking for the type of facility. In addition, the heights of new facilities have been considered so that they are compatible with the ADP requirements for each planning area.

Based on the analysis conducted as part of this project, Peterson SFB has not identified any significant adverse land use impacts that would result from implementation of any of the proposed development projects. None of the projects would result in any substantive land use changes or significant impacts based on the criteria listed herein. None of the proposed development projects would have any impact to land use because there would be no change to the existing land use designations for the potentially affected areas or because the change would be negligible, and the new land use would be compatible with the adjacent land uses. These projects would also not have any specific restrictions within the applicable planning districts and future planning areas as defined in the IDP (Peterson AFB, 2021a).

3.6.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to land use.

3.6.3.3 No Action Alternative

Under the No Action Alternative, no additional land use impacts would occur beyond the scope of normal conditions and influences within the land use ROI. None of the proposed development projects would be implemented and the existing land use designations at Peterson SFB would remain unchanged.

3.6.3.4 Cumulative Effects

The Proposed Action, in combination with foreseeable actions would not be expected to result in significant impacts to land use. El Paso County, the City of Colorado Springs, and the COSA all have made land use planning a priority and have recently completed or are in the process of completing comprehensive land use planning documents. The COSA is currently in the process of completing their master plan update that includes a number of different projects. All of the projects

proposed as part of the master plan update are proposed in areas of the airport designated for those uses. Implementation of these projects combined with the projects identified in Table 2-1 is not expected to result in significant impacts to land use. In addition to the airport projects, there is also the future potential for construction of the Space Command Headquarters facility on Peterson SFB. Construction of the new headquarters facility would also be located in areas of the installation designated for such use and would also not result in significant impacts to land use.

3.7 SAFETY

3.7.1 Definition of the Resource and Methodology

A safe environment is one in which there is no potential, or an optimally reduced potential, for death, serious bodily injury, or illness, or property damage. Potential safety issues at Peterson SFB include ground, antiterrorism and force protection, construction jobsite, and flight safety. Ground safety considers issues associated with human activities and Operations and Maintenance activities that support unit operations. A specific aspect of ground safety addresses antiterrorism and force protection considerations. Construction jobsite safety considerations include the prevention of mishaps related to construction projects. Flight safety considers aircraft flight risks such as aircraft mishaps and accidents. For the purposes of this safety analysis, the ROI for the Proposed Action and No Action Alternative includes Peterson SFB and the area immediately adjacent to the installation. Potential impacts to safety would occur if the implementation of an alternative resulted in conditions likely to increase the risk of accidents or of injury to persons.

3.7.2 Existing Conditions

Construction projects are an ongoing activity on Peterson SFB. Contractors performing construction activities are required to submit and abide by a health and safety plan and are responsible for following Occupational Safety and Health Administration regulations. Construction activities must be conducted in a manner that does not pose any risk to workers, personnel, or bystanders. Industrial hygiene programs address exposure to hazardous materials, use of personal protective equipment, and use and availability of Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractors are responsible for reviewing potentially hazardous workplaces; monitoring exposure to workplace chemical (e.g., asbestos, lead, hazardous material), physical (e.g., noise propagation), and biological (e.g., infectious waste) hazards; recommending and evaluating controls (e.g., ventilation, respirators) to ensure personnel are properly protected or unexposed; and ensuring a medical surveillance program is in place to perform occupational health physicals for those workers subject to any accidental chemical exposures or engaged in hazardous waste work.

Peterson SFB is a fenced, access-controlled facility. The majority of base personnel and visitors access the installation through the Main Gate and the North Gate. Delivery trucks and other commercial vehicles pass through the Main Gate. Within the base, access is further restricted to the flightline areas.

Antiterrorism standards (per UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*) must be incorporated into inhabited new construction and major renovation work funded under the Military Construction process. Standoff distance must be coupled with appropriate building hardening to provide the necessary level of protection to personnel. These standards apply to new and existing DoD buildings. Conventional construction may be used for new buildings without specific analysis of blast effects where conventional standoff distances can

be met, except as otherwise required by the standards. When such distances cannot be achieved, a competent engineer should analyze the building and apply hardening measures, as needed, to mitigate the distance deficit. For existing buildings, effective standoff distances should be achieved when possible. When effective standoff distances cannot be met, lesser standoff distances are allowed when the required level of protection can be shown to be achieved through building hardening, other mitigating construction, or retrofit. New construction at Peterson SFB is planned consistent with these standards.

3.7.3 Environmental Consequences

3.7.3.1 Proposed Action

Implementation of the Proposed Action would have no significant impact to safety at or in the vicinity of Peterson SFB. During construction activities for each project, safety practices would be implemented in accordance with relevant regulations established by the USSF, Occupational Safety and Health Administration, and other federal and state agencies. Construction sites would be fenced and only accessible to workers and other persons with a need to be there. Thus, any risks to the safety of workers and others would be minimized and no unusual risks would be created.

The design and construction of new facilities at Peterson SFB would comply with the requirements set forth in UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings, as applicable. Therefore, no significant safety impacts are anticipated.

3.7.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to safety.

3.7.3.3 No Action Alternative

Under the No Action Alternative, existing conditions at Peterson SFB would continue and there would be no increased safety risks as a result of implementing any of the IDP projects. There would be no significant impact to safety on or in the vicinity of the installation.

3.7.3.4 Cumulative Effects

The Proposed Action, in combination with foreseeable actions would not be expected to result in significant impacts to safety. Although there are a number of different projects proposed at the COSA and in areas surrounding Peterson SFB, the combination of these projects with the projects proposed at Peterson SFB would not result in significant impacts to safety. In addition, the future potential construction of the Space Command Headquarters facility on Peterson SFB combined with the projects identified in Table 2-1 would also not result in significant impacts to safety.

3.8 SOCIOECONOMICS

3.8.1 Definition of the Resource and Methodology

Socioeconomics refers to features or characteristics of the social and economic environment. The main concern for socioeconomic resources is the change in personnel associated with proposals that could potentially impact population, employment, earnings, housing, education, and public services. The ROI for employment and population effects as a result of proposed development

projects is the greater Colorado Springs area. Impacts to socioeconomics would be considered significant if they were to cause substantial changes to sales volume, income, employment, or population (including housing and schools).

3.8.2 Affected Environment

3.8.2.1 Population

Peterson SFB is located on the eastern edge of the City of Colorado Springs. The population of Colorado Springs in 2020 was 478,961 (U.S. Census Bureau, 2021). Peterson SFB is home to over 18,300 personnel and dependents (active duty and civilian) living both on and off base (El Paso County 2021).

3.8.2.2 Employment

The Colorado Springs civilian labor force totaled 309,888 in 2020 with El Paso County, Colorado having an unemployment rate of 5.6 percent (U.S. Census Bureau, 2021). Peterson SFB employed over 9,500 personnel (active duty and civilian) in 2020 with an economic impact of 1.3 billion dollars (El Paso County, 2021).

3.8.2.3 Housing

Housing on Peterson SFB has been privatized and is operated by Tierra Vista, a lendlease community. There are 669 homes in the family housing areas on Peterson SFB. The homes are approximately 94 percent occupied. The four dormitories on Peterson SFB can accommodate up to 410 personnel (Peterson AFB, 2014). El Paso County, Colorado, has over 280,000 total housing units with over 15,000 being vacant (~5.3 percent) (Colorado Department of Local Affairs, 2021).

3.8.2.4 Schools

School-age children residing on Peterson SFB attend Colorado Springs District 11 schools. There are over 80,000 students attending kindergarten through 12th grade in the 17 school districts in El Paso County, Colorado Springs, including Peterson SFB (El Paso County, 2021).

3.8.3 Environmental Consequences

3.8.3.1 Proposed Action

Implementation of the Proposed Action would result in beneficial impacts to socioeconomic resources on and around Peterson SFB. Beneficial socioeconomic impacts would result from workers that are hired to design and or build the new facilities and the local businesses that would supply equipment and materials for construction along with the businesses that would be patronized during construction activities. The following sections break out the potential socioeconomic consequences to populations, employment, housing, and schools.

3.8.3.1.1 Population

The number of personnel assigned to Peterson SFB is anticipated to increase by approximately 2,000 from implementing the proposed development projects. With net total of approximately 2,000 personnel moving to the Colorado Springs area and the average household occupancy in the area being 2.5 individual per household, it can be assumed that there would be approximately 3,000 dependents with approximately 1,000 of the dependents being school-aged children.

3.8.3.1.2 Employment

Implementation of the Proposed Action would have a positive economic impact from the addition of 2,000 assigned personnel and the local contractors and workers hired to design and/or build the new facilities and other projects included in the Proposed Action. This would further have positive effects on the local economy as contractors' money is spent at restaurants, gas stations, stores, construction material suppliers, hotels, and other nearby businesses. These positive effects would continue as the projects are implemented over a 10-year time frame and as each project continues for periods of several months to several years. Thus, the Proposed Action would result in beneficial socioeconomic impacts.

3.8.3.1.3 Housing

Of the 2,000 person increase in personnel assigned to Peterson SFB, military members would be eligible to reside on base if military family housing is available. Military personnel not housed on base and non-military personnel would reside in the Colorado Springs area. Available housing on Peterson SFB would not be adequate to support the increase in personnel. Base housing is approximately 94 percent occupied. According to the American Community Survey data, in 2019, approximately 7,631 housing units were available for rent or sale in El Paso County, which would provide adequate inventory to accommodate the incoming personnel (U.S. Census Bureau, 2019). Therefore, significant impacts to housing in the Colorado Springs area would not be expected to result from the potential increase in personnel assigned to Peterson SFB.

3.8.3.1.4 Schools

School-age children residing on Peterson SFB attend Colorado Springs District 11 schools. There are 17 school districts in El Paso County, Colorado, where school-age children living off base attend. Because capacity rates for all schools or school districts were not readily available, the analysis utilizes percentage increases in order to assess the ability of the area schools to accommodate the potential increase in school-aged children. There are over 80,000 students attending kindergarten through 12th grade in the 17 school districts surrounding Peterson SFB. The addition of approximately 1,000 students would result in a 1.25 percent increase in the student population. Therefore, potential impacts associated with an increase in students on the local school districts would not be considered significant.

3.8.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to socioeconomics.

3.8.3.3 No Action Alternative

Under the No Action Alternative, no construction activities or increase in operational activity related to any of the IDP projects would occur. No change to socioeconomics would occur. There would be no significant impact to socioeconomics from implementation of the No Action Alternative.

3.8.3.4 Cumulative Effects

The Proposed Action, in combination with foreseeable actions would not be expected to result in significant impacts to socioeconomics. Although there are a number of different projects proposed

at the COSA and in areas surrounding Peterson SFB, the combination of these projects with the projects proposed at Peterson SFB would not result in significant impacts to socioeconomics. In addition, the future potential construction of the Space Command Headquarters facility on Peterson SFB combined with the projects identified in Table 2-1 would also not result in significant impacts to socioeconomics.

3.9 SOILS AND WATER RESOURCES

3.9.1 Definition of the Resource and Methodology

The ROI for soils and water resources includes the areas proposed for infrastructure upgrades and construction along with areas immediately downstream of base outfalls that could be impacted during construction. The term "soils" refers to unconsolidated materials formed from the underlying bedrock or other parent material. Soils play a critical role in both the natural and human environment. The water resource evaluation for Peterson SFB includes both surface water features (lakes, streams, rivers, etc.) and groundwater. The ROI for surface water resources includes Peterson SFB and extends downstream to the primary tributaries. The ROI for groundwater includes the area serviced by the Denver Aquifer system in El Paso County.

A significant impact to soils and water resources from the proposed development projects would result if one or more of the following were to occur:

- Substantial soil loss or compaction precluding the reestablishment of vegetation;
- Substantial impacts to water quality, availability and or water supply to existing users; or,
- A violation of applicable federal or state law, regulation, or permit.

Minor adverse impacts to prime farmland would occur only if the Proposed Action would irreversibly convert prime farmland (directly or indirectly). The potential impact of flood hazards on a proposed project is important if such an action occurs in an area with a high probability of flooding.

3.9.2 Affected Environment

3.9.2.1 Soil Resources

Soils in the Colorado Springs area formed on fans, terraces, and side slopes of the Front Range and adjacent plains. They vary from shallow and rocky in mountainous areas to sandy loams on the plains. At Peterson SFB, soils may be characterized as sandy and originating from weathered feldspar-rich sedimentary units, with the result that they have a neutral pH and a moderate to high infiltration capability. There are no prime farmland soils on the installation. There are four soil classifications found on Peterson SFB, two of which range from 0 to 9 percent slope while the other two are relatively flatter. The predominant soil is Blakeland loamy sand that is highly erodible unless relatively dense plant cover is maintained. Truckton sandy loam, found at the north and northeast corners of the base, can be cultivated if it is irrigated and specially managed. (Peterson AFB, 2020a).

3.9.2.2 Surface Water

Peterson SFB lies within three large watersheds: East Sand Creek to the north, Peterson in the center, and Jimmy Camp Creek to the southeast. The Command Complex area is located in the northern end of the East Fork of Sand Creek watershed. The Community Support Area represents

the majority of the Peterson watershed. The Peterson East Area is located in the northern portion of Jimmy Camp Creek watershed.

Three surface water impoundments are situated on Peterson SFB. These three ponds are located on the installation's golf course and are used to irrigate the golf course grounds and for stormwater collection and retention.

The major use of surface water in the vicinity of Peterson SFB is for irrigation. Senior water rights for Fountain Creek downstream of Colorado Springs claim approximately the mean annual volume of the stream. The other important and growing use is for industrial and municipal water, especially for the City of Colorado Springs, which is the source of water used at Peterson SFB. Most of the potable water used in El Paso County is from surface water sources that are both within and outside the county (Peterson AFB, 2020a).

3.9.2.3 Groundwater

Groundwater in the Peterson SFB area is present in two major aquifers, one in the Quaternary alluvium and the other in the lower Laramie Formation and the upper Fox Hills Sandstone. Deeper aquifers lie beneath about 3,000 feet of Pierre Shale. The alluvial aquifer is about 12 to 30 feet below the surface on Peterson SFB. In the vicinity of the golf course, this alluvium is saturated for 10 to 40 feet above the bedrock, presumably as a result of golf course irrigation, because saturation of the alluvium occurs elsewhere on the base only in the vicinity of the East Fork of Sand Creek.

The slope of the bedrock surface to the south-southwest is paralleled by the potentiometric surface of the groundwater. The aquifer in the Laramie Formation and upper Fox Hills Sandstone is 200 to 300 feet thick and may be separated locally into upper and lower units. The flow of groundwater in this unit is north-northeast toward the center of the Denver Basin. These aquifers are generally recharged by surface water or other water-bearing units rather than by precipitation due to the low mean annual rainfall and high evapotranspiration in the area. Along Fountain Creek, groundwater generally moves from alluvial aquifers into the stream and from the stream into bedrock aquifers where the stream crosses outcrops of bedrock (Peterson AFB, 2020a).

3.9.2.4 Wetlands and Floodplains

There are no jurisdictional wetlands on Peterson SFB. Ponds 1, 2, and 3 are listed on the NWI map, however, they are not wetlands regulated by the USACE under Section 404 of the Clean Water Act. They were created on dry land with no naturally occurring wetland vegetation or natural hydrology; each pond bottom is lined with a fabric membrane; and none of these ponds drain into waters of the U.S.

A l00-year floodplain associated with the East Fork of Sand Creek covers 3.5 acres in the northwest corner of Peterson SFB. The creek remains dry for much of the year except for the area below the Cherokee District sewage lagoons, where year-round inflow keeps the streambed wet until it joins Sand Creek (Peterson AFB, 2020a).

Governmental policy guides the actions for construction in or near floodplains. Executive Order 11988, *Floodplain Management*, requires federal agencies to avoid, to the extent possible, long-term and short-term adverse impacts associated with the modification of floodplains and to avoid floodplain development wherever there is a practicable alternative.

3.9.2.5 Stormwater

Peterson SFB maintains, follows, and complies with the installation's Stormwater Management Plan, SWPPP, and two different National Pollution Discharge Elimination System (NPDES) permits. The Multi-Sector General Permit covers the airport and aircraft maintenance operations area and is valid until February 28, 2026. The Municipal Separate Storm Sewer System (MS4) permit authorizes discharges from municipal storm sewer outfalls to various receiving waters (Peterson AFB, 2015; Peterson AFB, 2020c; Peterson AFB 2020d). Under the MS4 permit, Peterson SFB is authorized to discharge stormwater in accordance with the discharge points, effluent limitations, monitoring requirements, and other conditions set forth in the NPDES Permit, COR042006 (Peterson AFB, 2015). Although the MS4 permit expired on December 31, 2020, the permit is in "administrative continuance" until a new permit is issued.

Stormwater drainage on Peterson SFB drains into a series of inlets and buried lines. Five stormwater outfalls discharge stormwater from regulated industrial areas of Peterson SFB to two receiving water bodies (East Fork of Sand Creek and Colorado Springs [COS] Detention Pond No. 2), which ultimately discharge to an unnamed tributary of Fountain Creek.

Outfalls 001, 002, and 003 drain relatively small areas and all discharge directly to the East Fork of Sand Creek, which naturally flows during the spring season or immediately following precipitation events. The Outfall 004 drainage area is the largest on the installation and includes regulated industrial operations including flight line and aircraft maintenance support facilities. Additional land uses in this drainage area include residential and commercial. The storm sewer collection system servicing this drainage area discharges to Pond 3 at the south end of the installation's golf course. Stormwater collected in Pond 3 can be directed to fill golf course Pond 1 or Pond 2, or to be used as irrigation for the golf course grounds. Water not used by the golf course is allowed to evaporate. Pond 3 is equipped with an overflow spillway, which directs overflow to the COS Detention Pond No. 2, located southwest of Pond 3. The spillway to the COS Detention Pond No. 2 is the designated outfall (Outfall 004). Discharges from Pond 3 to COS Detention Pond No. 2 at Outfall 004 are rare and only occur when Pond 3 exceeds full capacity. If a substantial storm event occurs, COS Detention Pond No. 2 will discharge to the COS stormwater system, which is hydraulically connected to the Fountain Creek drainage basin via a concrete lined channel exiting the airport to the west. Outfall 005 also discharges to COS Detention Pond No. 2. The Outfall 005 drainage area consists primarily of stormwater from the aircraft parking apron and other airfield pavements. Industrial operations associated with this drainage area include the Engine Test Stand, aircraft refueling, and aircraft deicing fluid storage (Peterson AFB, 2020c).

3.9.3 Environmental Consequences

3.9.3.1 Proposed Action

3.9.3.1.1 Soil Resources

Potential impacts to soil at Peterson SFB from the Proposed Action would result primarily from ground disturbance associated with the construction of new structures and pavements. These activities could alter soil profiles and local topography, as grading is required for construction activities.

Because more than one acre of disturbance would occur during construction activities at each of the proposed development projects, the construction contractor would be required to obtain coverage under the Colorado Discharge Permit System (CDPS) General Permit, Number

COR400000, for stormwater discharges associated with construction activities. In association with the CDPS General Permit, a SWPPP would be prepared for the construction activity. Construction activities would also be conducted in compliance with the EISA Section 438 requirements. The CDPS General Permit, together with the required SWPPP, would outline construction site management practices designed to protect the quality of the surface water, ground water, and natural environment through which they flow. The SWPPP would identify specific areas of existing and potential soil erosion, location of structural measures for sediment control, and management practices and controls. Use of these management practices and controls would reduce the potential for erosion of disturbed soils.

Short-term erosion impacts could occur during ground-disturbing activities including the removal of vegetative cover or grading. Potential impacts would be minimized through proper management practices defined within the approved SWPPP. Standard construction practices that could be implemented to minimize soil erosion include:

- Use of protective cover, such as mulch, straw, plastic netting, or a combination of these protective coverings;
- Implementation of site grading procedures to limit the time soils are exposed prior to being covered by impermeable surfaces or vegetation;
- Implementation of stormwater diversions to reduce water flow through exposed sites;
- Maintenance of a buffer strip of vegetation around drainages, where possible, to filter sediments; and,
- Retention of as many trees and shrubs as possible adjacent to exposed ground areas for use as natural windbreaks.

Once disturbed areas have been covered with pavement, buildings, or vegetative cover, their susceptibility to erosion would be substantially reduced. Upon completion of the construction phase, maintenance of a vegetative cover or covering undeveloped areas with gravel would serve as effective, long-term erosion control strategies for areas not covered with impervious surfaces. Soils underlying facilities and pavements are not typically subject to erosion.

Because management practices required by the CDPS General Permit and associated SWPPP would be implemented during construction activities, no significant impacts to soils are anticipated.

3.9.3.1.2 Surface Water

The Proposed Action does not involve construction in or over any surface water. None of the proposed development project sites are adjacent to surface water resources. As noted in Section 3.9.3.1.1, ground-disturbing activities would be subject to applicable requirements of a CDPS General Permit and SWPPP. The SWPPP outlines construction site management practices designed to protect the quality of the surface water, groundwater, and natural environment through which they flow minimizing soil erosion, resulting in minimal pollution and sedimentation of downstream watercourses. Thus, implementation of the Proposed Action in combination with appropriate best management practices is not anticipated to result in significant impacts to surface water resources on or in the vicinity of Peterson SFB.

3.9.3.1.3 Groundwater

None of the proposed development projects would require the installation of new wells or require increased withdrawals of groundwater. Construction activities and the new infrastructure would not require significant amounts of groundwater. Other potential impacts to groundwater during construction could include potential contamination from minor spills or leaks associated with construction vehicles and machinery. Fuels and other petroleum products would be stored and transferred on-site during construction activities. Spill prevention plans and management practices would be in place to minimize the potential for spills and to guide the quick clean up any spills that would occur. The confined nature and depths of the aquifers in the vicinity of the project site limit the potential for spills to migrate into aquifers used for drinking water. Therefore, the Proposed Action would have no significant impact to groundwater.

3.9.3.1.4 Floodplains

Floodplain management requires federal agencies to avoid, to the maximum extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The northwest corner of Peterson SFB is the only area that contains a mapped floodplain. This area would be avoided during implementation of the proposed development projects; therefore, significant impacts to floodplains are not anticipated.

3.9.3.1.5 Stormwater

As noted in Section 3.9.3.1.1, ground-disturbing activities would be subject to applicable requirements of a CDPS General Permit and SWPPP. The SWPPP outlines construction site management practices designed to protect the quality of the surface water, groundwater, and natural environment through which they flow minimizing soil erosion, resulting in minimal pollution and sedimentation of downstream watercourses. While impacts during construction cannot be entirely eliminated, they would remain minor.

After the proposed construction is complete, stormwater would be conveyed to the existing on-base stormwater system at Peterson SFB. The installation's existing stormwater system consists of a series of natural and man-made swales, ditches, and erosion control structures. Implementation of standard construction practices would ensure that stormwater runoff does not result in more than minor effects on water quality in the bodies of water draining the base. Additionally, the proposed development projects would be implemented using sustainable design concepts in compliance with EISA Section 438 requirements as well as outlined in the Peterson SFB Installation Facilities Standards (Peterson AFB, 2018a) in an effort to maintain site runoff to pre-development conditions. Sustainable design concepts emphasize state-of-the-art strategies for site development. Design practices that would be implemented to help manage and reduce stormwater include use of porous pavement and installation of bio-retention swales with curb cuts. Significant impacts to stormwater systems are not anticipated to result from implementation of the Proposed Action.

3.9.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 would implement the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would

not change the type or degree of impacts to soil and water resources and thus significant impacts would not result from implementation of Alternative 1.

3.9.3.3 No Action Alternative

Under the No Action Alternative, no multi-project related construction activities would occur. Daily operations and maintenance activities would continue to occur at Peterson SFB and therefore, significant impacts to soils and water resources would not result from implementation of the No Action Alternative.

3.9.3.4 Cumulative Effects

Construction activities associated with the projects proposed in Table 2-1 would occur near other ongoing and future construction projects during the same time periods. Construction projects have been and will continue to be a regular occurrence on and near installations such as Peterson SFB. These projects would increase the amount of soil disturbed and have the potential to increase erosion and sedimentation into surface water features if best management practices are not implemented. With the appropriate management practices in place, cumulative impacts to soil and water resources resulting from implementation of the proposed infrastructure development in conjunction with past, present, and reasonably foreseeable future actions would not be significant.

Although there are a number of different projects proposed at the COSA and in areas surrounding Peterson SFB, the combination of these projects with the projects proposed at Peterson SFB would not result in significant impacts to soil and water resources. In addition, the future potential construction of the Space Command Headquarters facility on Peterson SFB combined with the projects identified in Table 2-1 would also not result in significant impacts to soil and water resources.

3.10 INFRASTRUCTURE

3.10.1 Definition of the Resource and Methodology

Infrastructure, within the context of this EA, is associated with utilities and with transportation infrastructure. The utilities described and analyzed for potential impacts from the implementation of the Proposed Action include potable water, wastewater, electricity, natural gas, and the stormwater system. The description of each utility focuses on existing infrastructure, current utility use, and any predefined capacity or limitations as set forth in permits or regulations. Transportation includes the roadway network in and around Peterson SFB.

The ROI for infrastructure is Peterson SFB and the adjoining properties proposed for lease. An effect would be considered adverse if the proposed development projects would cause any of the following:

- A violation of a permit condition or contract with a utility provider;
- A capacity exceedance of a utility or solid waste facility;
- If a system could not sustain a mission increase due to poor condition, inefficient function, or operation;
- If a mission increase would require costly upgrades; or,
- A long-term interruption of a utility.

To assess the potential environmental consequences associated with transportation resources, increased utilization of the existing roadway system and base access gates due to the potential increase of personnel is analyzed qualitatively and includes potential effects of construction activities. Impacts could arise from physical changes to circulation, construction-related traffic delays, and changes in traffic volumes. Adverse impacts to roadway capacities would be significant if roads with no history of capacity exceedance had to operate at or above their full design capacity as a result of implementation of the proposed development projects.

3.10.2 Affected Environment

3.10.2.1 Potable Water

The City of Colorado Springs supplies potable water to Peterson SFB and the system has a capacity to provide approximately 5 million gallons per day. In 2014, average daily water use was approximately 1.1 million gallons per day. Analysis in the Peterson SFB IDP concluded that there is adequate water supply for current mission requirements with additional capacity for growth (Peterson AFB, 2021a).

3.10.2.2 Wastewater

Wastewater at Peterson SFB is discharged to the City of Colorado Springs Wastewater Treatment Plant. The installation's sewer system is primarily a gravity collection system with three lift stations to ensure adequate flow. Peterson SFB generates an average of 192,000 gallons of wastewater per day with a treatment system capacity at the Colorado Springs Wastewater Treatment Plant of 75,000,000 gallons per day. Colorado Springs operates a second wastewater treatment plan on Las Vegas Street, which has additional capacity for future growth. Analysis in the Peterson SFB IDP concluded that there is adequate wastewater treatment capability for current mission requirements with additional capacity for growth (Peterson AFB, 2021a).

3.10.2.3 Electricity

Electricity is provided to Peterson SFB by the City of Colorado Springs. Power is currently provided through a substation near the North Gate. Peterson SFB uses an average of 264,000 kilowatt hours (kWh) per day with a system capacity of 417,000 kWh per day. The electrical system is adequate for the current mission but has limited capacity for future growth and development (Peterson AFB, 2021). The electrical load on Peterson East is rapidly approaching the upper thresholds of the systems operating capacity.

3.10.2.4 Natural Gas

Colorado Spring Utilities provides natural gas to Peterson SFB through the City of Colorado Springs distribution system. The natural gas capacity at Peterson SFB is 2,286 thousand cubic feet per day, with a consumption rate of 682 thousand cubic feet per day. Analysis in the Peterson SFB IDP concluded that there is adequate natural gas supply/distribution for current mission requirements with additional capacity for growth (Peterson AFB, 2021a).

3.10.2.5 Stormwater System

The stormwater drainage system at Peterson SFB consists of storm sewers and various surface water features (i.e., ditches, creeks, culverts, ponds, and swales). The stormwater system meets current mission requirements but has limited capacity for major future growth and development (Peterson AFB, 2021).

3.10.2.6 Transportation

Three gates provide access to Peterson SFB. These gates include the North Gate, located at the northern perimeter of the base; the Main Gate, located at the western perimeter of the base; and the East Gate, at the eastern perimeter of the base. Congestion occurs at the North and Main Gates, especially during morning and evening rush hours. Traffic at the East Gate is generally light (Peterson AFB, 2018).

The primary roads associated with the gates and that provide access to Peterson SFB include Peterson Boulevard (North Gate) with access from US 24; Stewart Avenue (West Gate) also with access from US 24; and Stewart Avenue (East Gate) with access from Marksheffel Road.

3.10.3 Environmental Consequences

3.10.3.1 Proposed Action

The existing utility infrastructure on Peterson SFB has the capacity to service the proposed development projects and the incoming personnel. The new structures would take advantage of existing utility services in each of the areas proposed for development. Normal coordination would be conducted with utility service providers to minimize service interruptions to surrounding facilities. All infrastructure utility upgrades would comply with energy efficiency and sustainable development mandates.

3.10.3.1.1 Potable Water

Projects 1, 5, 6, 7, 8, and 9 would require new potable water lines and would connect to tie-in points and the existing base distribution system. Minor, short-term impacts and interruptions could be experienced during implementation of the Proposed Action when buildings are being disconnected or connected to the potable water infrastructure. Disruptions to the potable water supply and infrastructure would be temporary and coordinated with area users.

No adverse impacts to potable water supplies at Peterson SFB would result from implementation of the Proposed Action. Peterson SFB has sufficient capacity to accommodate the influx of personnel. Typical usage would continue at levels well below the base's daily potential supply volume.

3.10.3.1.2 Wastewater

Projects 1, 5, 6, 7, 8, and 9 would require new wastewater lines and would connect to tie-in points and existing base infrastructure. Minor, short-term impacts and interruptions could be experienced during implementation of the Proposed Action when buildings are being disconnected or connected to the wastewater infrastructure. Disruptions to the wastewater lines and infrastructure would be temporary and coordinated with area users.

No adverse impacts to wastewater capacity at Peterson SFB would result from implementation of the Proposed Action. Peterson SFB has sufficient capacity to accommodate the influx of personnel.

3.10.3.1.3 Electricity

Projects 1, 5, 6, 7, 8, and 9 would require new electric power lines and would connect to tie-in points and the existing base distribution system. Minor, short-term impacts and interruptions could be experienced during implementation of the Proposed Action when buildings are being disconnected or connected to the electric power infrastructure. Disruptions to the electric power supply would be temporary and coordinated with nearby area users.

Project 10 includes providing upgrades to the electrical grid at Peterson SFB and would result in beneficial impacts to the electric power supply by providing additional capacity and opportunity for future development. These proposed improvements would offset potential adverse impacts from the increase in personal associated with the Proposed Action.

3.10.3.1.4 Natural Gas

Projects 1, 5, 6, 7, 8, and 9 would require new natural gas supply lines and would connect to tie-in points and the existing base distribution system. Minor, short-term impacts and interruptions could be experienced during implementation of the Proposed Action when buildings are being disconnected or connected to the natural gas infrastructure. Disruptions to the natural gas supply would be temporary and coordinated with area users.

No adverse impacts to natural gas supplies at Peterson SFB would result from implementation of the Proposed Action. Peterson SFB has sufficient capacity to accommodate the influx of personnel.

3.10.3.1.5 Stormwater System

The Proposed Action would require construction of new facilities and infrastructure (see Table 2-1). Minor, short-term impacts to the stormwater system could be experienced during the construction activities associated with the Proposed Action. During these activities, all contractors would be required to comply with applicable statutes, standards, regulations, and procedures regarding stormwater management.

A variety of stormwater controls and low-impact development would be incorporated into construction plans during the design phase. Stormwater controls could include planting vegetation in disturbed areas as soon as possible after construction; constructing retention and infiltration facilities; and implementing structural controls (e.g., interceptor dikes, swales [excavated depressions], silt fences, straw bales, and other storm drain inlet protection), as necessary, to prevent sediment from entering inlet structures. The use of sustainable development techniques and natural retention, infiltration, and absorption features to reduce runoff and delay stormwater discharges is expected to result in minor, long-term, beneficial impacts to the stormwater system. Overall, potential impacts to the stormwater system from implementation of the Proposed Action would not be significant.

3.10.3.1.6 Transportation

Implementation of the proposed construction and infrastructure projects would require the delivery of materials and removal of construction-related debris from new construction sites. Trucks associated with these activities, along with construction crews, would access the base through the Main Gate and the North Gate. Construction-related traffic would comprise only a small portion of the total existing traffic volume in the area and at the base. However, increased traffic associated with these activities could contribute to increased congestion at the entry gates, regional access roads, on-installation networks, and off-installation networks, as well as the degradation of the affected road surfaces. To minimize traffic congestion, the base could adjust the schedule of operations to accommodate this increase, and/or provide additional personnel at the gates to process security checks during peak hours, if necessary.

Intermittent traffic delays and temporary road closures could occur in the immediate vicinity of the proposed development projects. Potential congestion impacts could be avoided or minimized by scheduling truck deliveries outside of the peak inbound traffic time. Also, many of the heavy construction vehicles would be driven to the site and kept on base for the duration of the

construction activities, resulting in relatively few additional trips. These construction-related traffic delays would be temporary in nature, ending once construction activities have been completed. Therefore, no long-term or significant impacts to transportation infrastructure are anticipated.

Project 1, the construction of the North Gate Entry Control Point would have a beneficial impact to the transportation infrastructure by increasing the gate traffic capacity, particularly during peak use, and reducing congestion of both on- and off-installation road networks.

No significant impacts to infrastructure are anticipated to result from implementation of the Proposed Action.

3.10.3.2 Alternative 1

Impacts associated with the implementation of Alternative 1 would be the same as those described for the Proposed Action. Alternative 1 implements the same projects as the Proposed Action with a different configuration for the improvements at the North Gate. Those improvements would not change the type or degree of impacts to infrastructure.

3.10.3.3 No Action Alternative

Under the No Action Alternative, there would be no improvements to the electrical system or the North Gate and none of the other projects described in Table 2-1 would be completed. Peterson SFB would continue to operate with the existing infrastructure. Minor impacts to infrastructure could result from implementation of the No Action Alternative as a result of the electrical system not being upgraded and the North Gate remaining as it is today.

3.10.3.4 Cumulative Effects

When considered in combination with the projects described in Table 2-1, the construction activities associated with the proposed development projects at Peterson SFB are not expected to significantly increase the demand on existing infrastructure. Although there are a number of different projects proposed at the COSA and in areas surrounding Peterson SFB, cumulative impacts to infrastructure on Peterson SFB that could result from implementation of the proposed development projects in conjunction with past, present, and reasonably foreseeable future actions would not be significant. In addition, the future potential construction of the Space Command Headquarters facility on Peterson SFB combined with the projects identified in Table 2-1 would also not result in significant impacts to infrastructure.

4. LIST OF PREPARERS

Government Agency Development Team			
Name/Title		**Role**	
Peterson Space Force Base		Proponent	
Air Force Civil Engineer Center		Technical Subject Matter	
Contractor Development Team			
Name/Title	**Project Role**	**Subject Area**	**Qualifications**
Chris Crabtree Air Quality Meteorologist B.A. Environmental Studies	Section Author	Air Quality	26 years environmental science
Tom Daues, PMP Biologist M.S. Natural Resources B.S. Biology	Project Manager, Editor	Soil and Water Resources, Land Use	26 years environmental science
Dave Dischner Senior Environmental Analyst B.A. Urban Affairs	Quality Assurance/ Quality Control and Section Author	Quality Assurance/ Quality Control, Airspace, and Safety	39 years environmental science
Sarah Rauch Conservation Ecologist B.S. Plant Biology, Environmental Science and Ecology	Section Author	Biological Resources	11 years environmental science
Brian Tutterow Environmental Scientist B.S. Biology	Section Author	Cultural Resources and Cumulative	24 years environmental science
Heather Gordon GIS Specialist M.S. Geography B.A. Environmental Studies	Figures	Geographic Information System (GIS)	18 years environmental science; GIS applications
Nathan Gross, CHMM Environmental Scientist B.S. Wildlife and Fisheries Management	Section Author	Hazardous Materials and Waste, Project Support	16 years environmental science
Jennifer Wallin Technical Editor M.S. Environmental Toxicology B.S. Biology	Production	Document Production	19 years editing, document production

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5. REFERENCES

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Appendix A

Correspondence and Outreach

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INTERAGENCY COORDINATION LETTER

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DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
PETERSON-SCHRIEVER GARRISON

Lieutenant Colonel Erica Tortella
Commander
21st Civil Engineer Squadron
580 Goodfellow Street
Peterson SFB CO 80914

Mr. Craig Dossey
El Paso County Development Services Department
2880 International Circle, Suite 110
Colorado Springs CO 80910

SUBJECT: Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base

Dear Mr. Dossey

The U.S. Space Force (USSF) is preparing an Environmental Assessment (EA) for installation development to evaluate the potential environmental impacts associated with 10 proposed projects in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 *United States Code [USC]* 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 *Code of Federal Regulations [CFR]* 1500-1508), the Air Force Environmental Impact Assessment Process Regulations at 32 *CFR* 989, and Air Force Instruction (AFI) 32-7061.

The intent of the ongoing installation development is to provide infrastructure improvements necessary to support the missions at Peters SFB. Table 1 contains the 10 projects identified as priorities for installation development. With the exception of the two lease agreements, all of the projects evaluated in this EA are located inside the existing boundary of Peterson SFB.

Table 1. Peterson SFB Installation Development Projects

Project ID*	Project Name	Description of the Proposed Action
1	North Gate Entry Control Point Project	This project involves the construction of a new North Gate complex. The new gate would continue to provide access via Peterson Boulevard from Highway 24 and E. Platte Avenue/Space Village Avenue.
2	Recreational Vehicle (RV) Storage Lot	This project consists of the conversion of approximately 12 acres of undeveloped land into a gravel parking lot to accommodate RV storage. The site for this project is located on the northeastern corner of Peterson SFB, south of Space Village Avenue.

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Table 1. Peterson SFB Installation Development Projects (Continued)

Project ID*	Project Name	Description of the Proposed Action
3	Colorado Springs Airport 10-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 10-acre parcel of land for future development. Prior to COSA ownership, this parcel was owned by School District 11 and is therefore referred to as the D11 property. The square-shaped parcel is located near the northeastern border of Peterson SFB.
4	Colorado Springs Airport 168-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 168-acre parcel of land for future development. This parcel is located on the east side of the COSA runway and south of the eastern portion of Peterson SFB.
5	Special Operations Command North (SOCNORTH) Human Performance Training Center (HPTC)	This project involves the construction of a 12,000-square-foot permanent fitness center. This facility would be a one-story, high-bay structure with a low-sloped roof. The supporting infrastructure would include a parking garage and the development of stormwater controls. This 1-acre complex would be connected to family housing via a direct pedestrian/bike trail.
6	South Command Area Development	The South Command Area is approximately 29 acres located south of the major command headquarters on Peterson SFB. The proposed development would include two notional administrative facilities, associated parking garages, realignment of Paine Street, and removal of existing parking lots. This development would be designed to accommodate 1,500 new personnel.
7	Mission Related Project	The mission support command project would involve construction of a new administrative building capable of accommodating approximately 360 personnel. The administrative building would be an approximately 50,000-square-foot building located within the 20-acre complex. The complex would be located north of Eldorado Street on the eastern portion of Peterson SFB.
8	Hazardous Waste Facility Project	This project would involve relocation of the existing Hazardous Waste Facility to a location behind the base exchange on the eastern portion of Peterson SFB. The building would be approximately 4,500-square-feet in size and located on a 9-acre site on the eastern side of the base exchange.
9	Lodging Facility Project	This project would involve the continuing redevelopment of the Triangle Area on the base (between Peterson Boulevard, Stewart Avenue, and Paine Street) in accordance with the Triangle Area Development Plan (ADP). Proposed new development in this area would include the construction of lodging facilities, mixed-use facilities, and a new parking structure. The total area of disturbance would be approximately 35 acres, and construction would occur over a 2-year period.
10	Electrical Grid Upgrade Project	This project involves installing approximately 24,000 linear feet of new electrical line (in concrete-encased duct bank), construction of a new substation, and construction of a switching station and associated underground wiring.

**See the map following for project locations*

The Intergovernmental Coordination Act and Executive Order (EO) 12372 (Intergovernmental Review or Federal Programs) require Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. In accordance with EO 12372, we invite your agency to review the proposed projects and provide comments on the Proposed Action. Please provide your comments relative to specific issues your office may have, based on your expertise or regulatory jurisdiction. Please provide any technical information, mitigation, or permitting requirements that may be necessary for project implementation. Any preliminary data your office can provide will be evaluated and incorporated into the EA.

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The USSF looks forward to your participation in this NEPA process. Please provide written comments within 30 days from the date of this letter to Mr. Antwan Jackson, 21 CS/CENB, 580 Goodfellow Street, Peterson SFB, CO 80914, antwan.jackson.1@spaceforce.mil. If you need further information or have any questions, please contact Mr. Jackson at 719-556-8059. Thank you for your assistance in this matter.

Sincerely,

ERICA E. TORTELLA, Lt Col, USAF
Commander, 21st Civil Engineer Squadron
Peterson Space Force Base, CO

Attachment
1. Map of Proposed Action Projects and Area of Potential Effects

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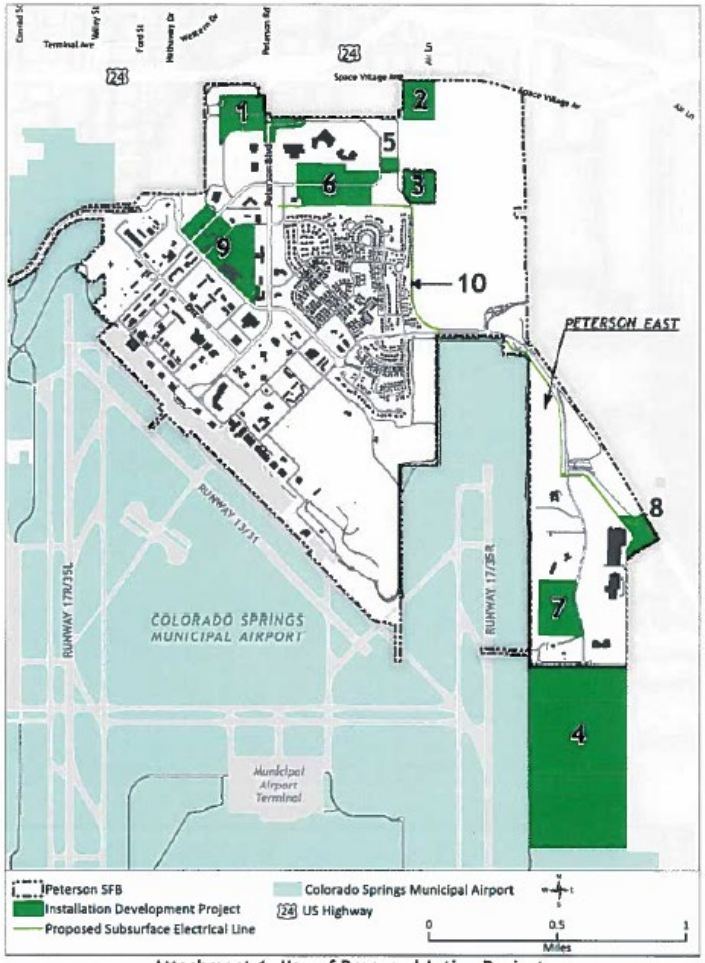

Attachment 1. Map of Proposed Action Projects
See Table 1 for a Description of each project

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DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
PETERSON-SCHRIEVER GARRISON

11 March 2022

MEMORANDUM FOR: Potentially Interested Stakeholder

Mr. Robert Tomlinson
Installation Manager
21st Civil Engineer Squadron
580 Goodfellow Street
Peterson SFB CO 80914

SUBJECT: Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base - Contact Information Correction

References: (a) Previously Mailed Letter Titled: Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base. Mailed: 4 March 2022

1. The U.S. Space Force (USSF) sent letters associated with the above referenced project on 4 March 2022. The point of contact listed in the original letters is no longer with the USSF and the contact information is no longer valid. This memorandum provides the correct point of contact information for this project.

2. The correct point of contact for this project is Mr. Tyler Dugan.

3. Please provide written comments within 30 days from the date of the letter to Mr. Tyler Dugan, 21 CES/CEIE, 580 Goodfellow Street, Peterson SFB, CO 80914, tyler.dugan.1@spaceforce.mil. If you need further information or have any questions, please contact Mr. Dugan at 719-556-6100.

4. Thank you for your assistance in this matter.

TOMLINSON.ROBERT.RICHARD.1220963450 Digitally signed by TOMLINSON.ROBERT.RICHARD.1220963450 Date: 2022.03.11 09:06:32 -07'00'

ROBERT R. TOMLINSON, GS-13, DAF
Chief, Installation Managment

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STATE HISTORIC PRESERVATION OFFICE LETTER

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DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
PETERSON-SCHRIEVER GARRISON

Lieutenant Colonel Erica Tortella
Commander
21st Civil Engineer Squadron
580 Goodfellow Street
Peterson SFB CO 80914

Ms. Dawn DiPrince
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver CO 80203

SUBJECT: Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base

Dear Ms. DiPrince

The U.S. Space Force (USSF) is preparing an Environmental Assessment (EA) for installation development at Peterson Space Force Base (SFB) to evaluate the potential environmental impacts associated with 10 proposed projects in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 *United States Code [USC]* 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implements NEPA procedures (40 *Code of Federal Regulations [CFR]* 1500-1508), the Air Force Environmental Impact Assessment Process Regulations at 32 *CFR* 989, and Air Force Instruction (AFI) 32-7061.

The intent of the ongoing installation development is to provide infrastructure improvements necessary to support the missions at Peterson SFB. Table 1 contains the 10 projects identified as priorities for installation development. With the exception of the two lease agreements, all of the projects evaluated in this EA are located inside the existing boundary of Peterson SFB.

Table 1. Peterson SFB Installation Development Projects

Project ID*	Project Name	Description of the Proposed Action
1	North Gate Entry Control Point Project	This project involves the construction of a new North Gate complex. The new gate would continue to provide access via Peterson Boulevard from Highway 24 and E. Platte Avenue/Space Village Avenue. Note that part of the Area of Potential Effects (APE) for this project is within the APE for the Installation Development Plan (IDP) Implementation EA (Project 11 [Relocate North Gate]), which the State Historic Preservation Officer (SHPO) concurred would have no adverse effect in its letter dated May 19, 2017 (CHS #71620).
2	Recreational Vehicle (RV) Storage Lot	This project consists of the conversion of approximately 12 acres of undeveloped land into a gravel parking lot to accommodate RV storage. The site for this project is located on the northeastern corner of Peterson SFB, south of Space Village Avenue.

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Table 1. Peterson SFB Installation Development Projects (Continued)

Project ID*	Project Name	Description of the Proposed Action
3	Colorado Springs Airport (COSA) 10-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 10-acre parcel of land, for future development. Prior to COSA ownership, this parcel was owned by School District 11 and is therefore referred to as the D11 property. The square-shaped parcel is located near the northeastern border of Peterson SFB.
4	COSA 168-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 168-acre parcel of land for future development. This parcel is located on the eastern side of the COSA runway and south of the eastern portion of Peterson SFB.
5	Special Operations Command North (SOCNORTH) Human Performance Training Center (HPTC)	This project involves the construction of a 12,000-square-foot permanent fitness center. This facility would be a one-story, high-bay structure with a low-sloped roof. The supporting infrastructure would include a parking garage and the development of stormwater controls. This 1-acre complex would be connected to family housing via a direct pedestrian/bike trail. Note that the APE for this project is entirely within the APE for the IDP Implementation EA (Project 4, consisting of potential development of a 51,000-square-foot Colorado Army National Guard facility and an 80,000-square-foot U.S. Special Operations Command facility), which the SHPO concurred would have no adverse effect in its letter dated May 19, 2017 (CHS #71620).
6	South Command Area Development	The South Command Area is approximately 29 acres located south of the major command headquarters on Peterson SFB. The proposed development would include two notional administrative facilities, associated parking garages, realignment of Paine Street, and removal of existing parking lots. This development would be designed to accommodate 1,500 new personnel.
7	Mission-Related Project	The mission support command project would involve construction of a new administrative building capable of accommodating approximately 360 personnel. The administrative building would be an approximately 50,000-square-foot building located within the 20-acre complex. The complex would be located north of Eldorado Street on the eastern portion of Peterson SFB.
8	Hazardous Waste Facility Project	This project would involve relocation of the existing Hazardous Waste Facility to a location behind the base exchange on the eastern portion of Peterson SFB. The building would be approximately 4,500 square feet in size and located on a 9-acre site on the eastern side of the base exchange.
9	Lodging Facility Project	This project would involve the continuing redevelopment of the Triangle Area on the base (between Peterson Boulevard, Stewart Avenue, and Paine Street) in accordance with the Triangle Area Development Plan (ADP). Proposed new development in this area would include the construction of lodging facilities, mixed-use facilities, and a new parking structure. The total area of disturbance would be approximately 35 acres, and construction would occur over a 2-year period. Note that the APE for this project is within the APE for the IDP Implementation EA (Projects 2 [Demolition of Building 1425] and 5 [Triangle Redevelopment - 375,000 square feet of facilities]), which the SHPO concurred would have no adverse effect in its letter dated May 19, 2017 (CHS #71620).
10	Electrical Grid Upgrade Project	This project involves installing approximately 24,000 linear feet of new electrical line (in concrete-encased duct bank), construction of a new substation, and construction of a switching station and associated underground wiring.

**See the map following for project locations*

The Area of Potential Effects (APE) for archaeological resources is defined as the discontinuous set of discrete disturbance footprints of each development project and any associated staging areas as shown on the map labeled as Attachment 1. Work within the development areas would include new construction, grading, and trenching. For historic

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architectural resources, the APE is defined as the discrete disturbance footprint of each project and 1,000 feet surrounding each footprint. A map of the APE for the individual projects of the undertaking is attached (Attachment 1). Cultural surveys of the APE on Peterson SFB have been previously conducted, and Peterson SFB will consult with the State Historic Preservation Officer (SHPO) throughout the process of determining effects on cultural resources in a subsequent letter.

In compliance with the National Historic Preservation Act (NHPA) (54 *USC* 300101), specifically Section 106 (54 *USC* 306108) and its implementing regulations (36 *CFR* Part 800), which encourages the consideration of alternatives and early notice and involvement, the USSF is providing this information to the SHPO regarding the undertaking to implement the Installation Development Projects (IDPs) at Peterson SFB.

Also in accordance with 36 *CFR* 800.2(c)(2), the USSF is providing this information to the Federally recognized tribes with historical/cultural ties to the area (Attachment 2) to invite them to consult on a government-to-government basis. To seek input from the public and agencies, the USSF will utilize the process of Interagency and Intergovernmental Coordination for Environmental Planning; notify concerned Federal, state, and local agencies; and allow them sufficient time to evaluate the potential environmental impacts (including cultural resources) of the proposed projects at Peterson SFB.

The Intergovernmental Coordination Act and Executive Order (EO) 12372 (Intergovernmental Review or Federal Programs) require Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. In accordance with EO 12372, we invite your agency to review the proposed projects and provide comments on the Proposed Action. Please provide your comments relative to specific issues your office may have, based on your expertise and regulatory jurisdiction, including any technical information that may be necessary for project implementation. Any preliminary data your office can provide will be evaluated and incorporated into the EA.

The USSF looks forward to your participation in the NEPA and NHPA Section 106 processes. Please provide written comments within 30 days from the date of this letter to Mr. Antwan Jackson, 21 CS/CENB, 580 Goodfellow Street, Peterson SFB, CO 80914, antwan.jackson.1@spaceforce.mil. If you need further information or have any questions, please contact Mr. Jackson at 719-556-8059. Thank you for your assistance in this matter.

Sincerely

ERICA E. TORTELLA, Lt Col, USAF
Commander, 21st Civil Engineer Squadron
Peterson Space Force Base, CO

2 Attachments
1. Map of Proposed Action Projects and Area of Potential Effects
2. List of Federally Recognized Tribes Contacted

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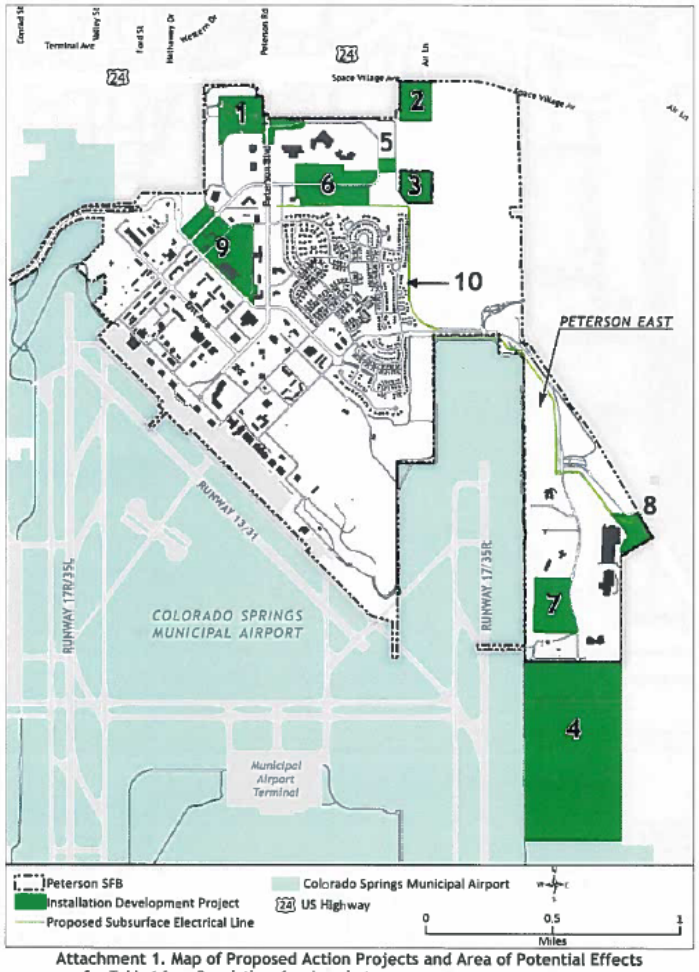

Attachment 1. Map of Proposed Action Projects and Area of Potential Effects
See Table 1 for a Description of each project

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Attachment 2. List of Federally Recognized Tribes Contacted

Apache Tribe of Oklahoma
Assiniboine and Sioux Tribes
Blackfeet Nation
Cheyenne and Arapaho Tribes of Oklahoma
Cheyenne and Arapaho Tribes of Oklahoma - Arapaho Tribe
Cheyenne River Sioux Tribe
Comanche Nation of Oklahoma
Crow Creek Sioux Tribe
Crow Tribe
Eastern Shoshone Tribe
Flandreau Santee Sioux Tribe
Fort Sill Apache Tribe
Jicarilla Apache Tribe
Kiowa Tribe of Oklahoma
Little Shell Tribe of Chippewa Indians
Mescalero Apache Tribe
Navajo Nation
Northern Arapaho Tribe
Northern Cheyenne Tribe
Oglala Sioux Tribe
Pawnee Nation of Oklahoma
Pueblo of Taos
Pueblo of Zuni
Rosebud Sioux Tribe
Santee Sioux Nation
Southern Ute Indian Tribe
Spirit Lake Nation
Standing Rock Sioux Tribe
Three Affiliated Tribes of the Mandan, Hidatsa & Arikara Nation
Ute Indian Tribe of the Uintah & Ouray Reservation
Ute Mountain Ute Tribe
Yankton Sioux Tribe

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INTERAGENCY COORDINATION LETTER RESPONSES AND PREVIOUS SHPO CORRESPONDENCE

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COLORADO
Parks and Wildlife
Department of Natural Resources

Southeast Region - Area 14
4255 Sinton Road
Colorado Springs, CO 80907
P 719.227.5200 | F 719.227.5264

4/1/2022

United States Space Force Peterson-Schriever Garrison
ATTN: Tyler Dugan 21 CES/CEIE
580 Goodfellow St. Peterson SFB, CO. 80914

Mr. Tyler Dugan

Thank you for the opportunity to comment on the Multi-Project Environmental Assessment at Peterson Space Force Base. Colorado Parks and Wildlife (CPW) has reviewed the material and is familiar with the site. Due to the general nature of the projects, CPW comments will address potential impacts to wildlife found on shortgrass prairie habitat.

CPW recommends that all projects be assessed to avoid, minimize, or mitigate impacts to sensitive wildlife habitats and species. That includes species of concern as well as Federal and/or State listed species, big game wildlife (migration corridors, winter range, and parturition areas), breeding and nesting habitats for sensitive ground-nesting birds, and nests of raptors sensitive to development in order to prevent loss of habitat or fragmentation of habitat. US Fish and Wildlife Service (USFWS) should be consulted on any Federally-listed Endangered and Threatened Species that might be present at the location.

Wildlife species that can be found on the project site include: black tailed prairie dog, burrowing owls, mule deer, white-tailed deer, pronghorn, several bat species, many additional species of small mammals, a variety of reptiles, and a variety of grassland birds. Golden eagles are present year-round and utilize the area frequently. Golden eagles, Red-tailed hawk, Prairie falcon, and Swainson's hawk, hunt nearby and within prairie dog colonies, and nest in the surrounding area.

The majority of the project area is shortgrass prairie which provides habitat for the species listed above. If black-tailed prairie dog towns are present within the project area, there is a high probability that burrowing owls and mountain plovers are present within those towns as well. Consultation with USFWS is recommended to ensure compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Act. The best way to avoid impacts on the nesting efforts of migratory birds is to focus construction activities outside of the breeding season (March 15th -October 31st). If construction must occur during the breeding season, surveys for active nests should be conducted prior to groundbreaking. All migratory birds are protected under the Migratory Bird Treaty Act and removal or disturbance of any migratory bird nest would require consultation with CPW and USFWS prior to disturbance.

Other Threatened, Endangered, and State Species of Concern: Burrowing Owls *(Athene cunicularia)*, a state threatened bird, may be found within the preferred corridor and CPW recommends a survey of prairie dog colonies prior to construction to determine absence or presence of the species. If nesting burrowing owls are present, CPW recommends no human encroachment within 660 ft of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated.

The proposed project area is within the range of the Mountain Plover *(Charadrius montanus)*, a state species of special concern. The Best Management Practices for mountain plover recommend surveys to identify habitat and plover nests within the project area, and plan construction activity outside of critical nesting periods, April 1st through August 15 where these species are found. Mountain plovers can nest in short-grass prairie, dryland cultivated farms, and prairie dog towns and are likely to be nesting on the project area.

We appreciate the opportunity to comment on this project. If you have any questions or need any additional information please contact District Wildlife Manager Drew Vrbenec at 719.439.9638 or by email at drew.vrbenec@state.co.us.

Sincerely,

Tim Kroening
Area 14 Wildlife Manager

CC: Drew Vrbenec DWM
Southeast Region Files
Area 14 Files

COLORADO
Department of Public Health & Environment

April 5, 2022

Mr. Antwan Jackson
21 CS/CENB
580 Goodfellow Street
Peterson SFB, CO 80914

Submitted via email to antwan.jackson.1@spaceforce.mil

RE: Colorado Department of Public Health and Environment's Comments on the Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base.

Dear Mr. Jackson:

The Colorado Department of Public Health and Environment (CDPHE) appreciates the opportunity to provide comments on the U.S. Space Force (USSF) introduction to multi-project environmental assessment at Peterson Space Force letter. CDPHE conducts National Environmental Policy Act (NEPA) reviews and provides comments as a cooperative agency to ensure compliance with applicable Federal and State requirements intended to avoid or minimize impacts to public health and the environment. Based on its review of the introduction letter for the proposed projects, CDPHE provides the following comments for your consideration.

Air Quality

We note that the proposed projects are located in a U.S. Environmental Protection Agency designated Maintenance Area for Carbon Monoxide (CO). Further, while the area is currently designated as attaining the 8 Hour Ozone National Ambient Air Quality Standards, the area has been experiencing higher ozone values in recent years, such that that attainment status may change. In 2019, Colorado's greenhouse gas (GHG) reduction goals of 26% by 2025, 50% by 2030, and 90% by 2050 (relative to a 2005 baseline) were codified in House Bill 19-1261. We encourage the following to help maintain air quality standards and achieve GHG reduction goals:

4300 Cherry Creek Drive S, Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe
Jared Polis, Governor | Jill Hunsaker Ryan, MPH, Executive Director

- Use of zero and/or low emission equipment and vehicles to minimize emissions during construction and operations.
- Offering an employee commute trip reduction program to minimize vehicle emissions.
- Collaborate with the Pikes Peak Area Council of Governments (PPACG) to meet ozone reduction goals established in the Pikes Peak Region Ozone Advance Program.[1]

Demolition and Redevelopment

While the project introduction letter does not specify if demolition or redevelopment activities are planned, Project ID 8 would involve the relocation of the existing Hazardous Waste Facility. The following information about asbestos requirements is included for your consideration.

Colorado Air Quality Control Commission (AQCC) Regulation Number 8 includes requirements regarding the appropriate removal and handling of asbestos as part of a demolition, renovation, or remodeling project. This regulation may require the use of, or inspection by, companies or individuals that are certified to inspect or remove these hazards prior to renovation or demolition. The Air Pollution Control Division (Division) must also be notified prior to beginning any asbestos abatement or demolition activities. For additional guidance on these regulations and lists of certified companies and individuals, please visit https://cdphe.colorado.gov/indoor-air-quality/asbestos. If you have any questions about Colorado's asbestos regulation or are unsure whether you are subject to it please call the Indoor Environment Program at cdphe.asbestos@state.co.us or 303-692-3100.

Engines and Generators

We note that development projects may include the use of engines and generators. Stationary internal combustion engines, emergency power generators, and non-road engines release air pollutants, such as Nitrogen Oxides (NOx), Particulate Matter (PM), Carbon Monoxide (CO), Non-methane Hydrocarbons (NMHC), and Sulfur Dioxides (SOx), and Hazardous Air Pollutants (HAPS). In Colorado, these pollutants, also known as criteria and non-criteria pollutants, are regulated by the Division. Most facilities that are or will be emitting air pollutants above certain levels are required to report those emissions to the Division by completing an Air Pollutant Emissions Notice (APEN). This is a two-in-one form for reporting air emissions and to obtain an air permit, if a permit is required. In general, an APEN is required when

[1] Pikes Peak Area Council of Governments, 2021, *Pikes Peak Region Ozone Advance Program*, https://www.epa.gov/sites/default/files/2021-01/documents/co_pikes_peak_2020_path_forward.pdf

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uncontrolled actual emissions for an emission point or group of emission points exceed the following defined emission thresholds:

APEN Thresholds		
Pollutant Category	UNCONTROLLED ACTUAL EMISSIONS	
	Maintenance/Attainment Area	Non-attainment Area
Criteria Pollutant	2 tons per year	1 ton per year
Lead	100 pounds per year	100 pounds per year
Non-Criteria Pollutant	250 pounds per year	250 pounds per year

Please refer to https://cdphe.colorado.gov/apens-and-air-permits/air-permits-for-non-oil-gas for additional information on engines and generators APEN and permitting requirements. Emission calculation spreadsheets are also provided.

Land Development

Under AQCC Regulation Number 3, land development refers to all land clearing activities, including but not limited to land preparation such as excavating or grading, for residential, commercial or industrial development. Land development activities release fugitive dust, a pollutant regulated by the Division. Small land development activities are not subject to the same reporting and permitting requirements as large land activities. Specifically, land development activities that are less than 25 contiguous acres and less than 6 months in duration do not need to report air emissions to the Division. It is important to note that even if a permit is not required, fugitive dust control measures included the Land Development Air Pollutant Emissions Notice (APEN) Form APCD-223 must be followed at the site. Fugitive dust control techniques commonly included in the plan are included in the table below.

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Control Options for Unpaved Roadways	
Watering	Use of chemical stabilizer
Paving	Controlling vehicle speed
Graveling	
Control Options for Mud and Dirt Carry-Out Onto Paved Surfaces	
Gravel entry ways	Washing vehicle wheels
Covering the load	Not overfilling trucks
Control Options for Disturbed Areas	
Watering	Application of a chemical stabilizer
Revegetation	Controlling vehicle speed
Compaction	Furrowing the soil
Wind Breaks	Minimizing the areas of disturbance
	Synthetic or Natural Cover for Slopes

Additional information and APEN Form APCD-223 is available at the following website https://cdphe.colorado.gov/apens-and-air-permits/air-permits-for-non-oil-gas. Click on "Land Development" to access the land development specific APEN form. Please contact KC Houlden, Construction Permits Unit Supervisor, at kenneth.houlden@state.co.us, 303-691-4092, if you have any specific questions about APENs and permit forms.

General Conformity

The Federal General Conformity Rule applies in both air quality nonattainment and maintenance areas. We note that the proposed projects are located within the Colorado Springs Carbon Monoxide (CO) Maintenance Area. However, in its January 14, 2021 letter to CDPHE, the U.S. Environmental Protection Agency, Region 8, clarified that General Conformity requirements no longer apply in the Colorado Springs CO Maintenance Area:

> "Because the Colorado Springs CO maintenance area has shown continuous maintenance of the CO NAAQS (see 40 CFR 50.8) from October 25, 1999 through October 25, 2019, the area has met its obligation to demonstrate maintenance of the CO NAAQS for 20 years, and the maintenance plan does not require the applicability of General Conformity beyond 20 years. Therefore, as of October 26, 2019, the requirements of General Conformity no longer applied in this area."

Hazardous Materials and Waste Management

The installation development plan includes relocation of the existing Hazardous Waste Facility. While the specific use of the Hazardous Waste Facility was not indicated in the project description, it is presumed to be the location of the facility's generator storage area.

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Based on the current Small Quantity Generator status, there are no requirements associated with relocating a hazardous waste storage area. However, confirmation that the referenced Hazardous Waste Facility is only used for generator storage is needed before it can be determined that no other requirements apply.

Thank you again for the opportunity to provide comments on the proposed projects. Please do not hesitate to contact me with any questions. In addition to including my email, trisha.oeth@state.co.us, please copy richard.coffin@state.co.us on any communication about this issue.

Sincerely,

Trisha Oeth, JD
Director of Environmental Policy
Colorado Department of Public Health and Environment

4300 Cherry Creek Drive S, Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe
Jared Polis, Governor | Jill Hunsaker Ryan, MPH, Executive Director

HISTORY Colorado

May 19, 2017

Daniel M. Rodriguez, P.E.
Chief, Installation Management Flight
580 Goodfellow Street, Building 1324
Peterson AFB, CO 80914

Re: Environmental Assessment (EA) for Development at Peterson Air Force Base (AFB), Colorado (CHS #71620)

Dear Mr. Rodriguez:

Thank you for your correspondence dated May 3, 2017 and received on May 15, 2017 by our office regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the identified Area of Potential Effects (APE) for the proposed development projects.

After review of the scope of work and assessment of adverse effects, we have the following concerns regarding the proposed projects.

As stated in the above-mentioned letter, several architectural surveys have taken place within the boundaries of Peterson Air Force Base; however, few have received determination of eligibility concurrence with our office. We note that a survey of the entire Peterson Air Force Base is ongoing and will be submitted to our office at a later date.

After review of our database, we note that Building 1360 has been assigned site number 5EP.6415 and was determined officially not eligible by our office in 2011. In regards to buildings 1378 and 1425 as well as the north gate complex, the above-mentioned letter states that they were built in 1981, 1972, and 1980 and thus do not meet the minimum age of 50 years that is generally identified as a threshold for National Register of Historic Places eligibility. Although these buildings are not yet 50 years of age, have they been assessed for their potential significance to the Cold War era? As stated, these buildings will be re-recorded in the current survey that is ongoing at Peterson Air Force Base. We request receipt of that survey and completion of our review of the findings of that survey prior to commenting on the assessment of adverse effect for these buildings.

For all buildings which have not received official determinations of eligibility and were addressed within the above-mentioned letter, we request continued consultation prior to consulting on the assessment of adverse effect.

We note that resource 5EP.774/Original Colorado Springs Municipal Airport is Listed on the National Register of Historic Places. We concur that resource 5EP.7085 is identified as needing data in regards to its potential to be eligible for the National Register of Historic Places. We recommend a finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for resources 5EP.774 and 5EP.7085 as the proposed projects have the potential to affect these two resources; however, the effect will not be adverse.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

If we may be of further assistance, please contact Jennifer Bryant, our Section 106 Compliance Manager, at (303) 866-2673 or jennifer.bryant@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer

History Colorado, 1200 Broadway, Denver, CO 80203 HistoryColorado.org

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EXAMPLE TRIBAL LETTER

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DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
PETERSON-SCHRIEVER GARRISON

Lieutenant Colonel Erica Tortella
Commander
21st Civil Engineer Squadron
580 Goodfellow Street
Peterson SFB CO 80914

Mr. Thomas Brings
THPO
Oglala Sioux Tribe
PO Box 2070
Pine Ridge SD 57770

SUBJECT: Introduction of the Multi-Project Environmental Assessment at Peterson Space Force Base

Dear Mr. Brings

The U.S. Space Force (USSF) is preparing an Environmental Assessment (EA) for installation development at Peterson Space Force Base (SFB) to evaluate the potential environmental impacts associated with 10 proposed projects in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 *United States Code [USC]* 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 *Code of Federal Regulations [CFR]* 1500-1508), the Air Force Environmental Impact Assessment Process Regulations at 32 *CFR* 989, and Air Force Instruction (AFI) 32-7061.

Peterson SFB occupies approximately 1,278 acres north of the Colorado Springs Municipal Airport in central El Paso County, Colorado, and is situated approximately 7 miles east of downtown Colorado Springs. The intent of the ongoing installation development is to provide infrastructure improvements necessary to support the missions at Peterson SFB. Table 1 contains the 10 projects identified as priorities for installation development. With the exception of the two lease agreements, all of the projects evaluated in this EA are located inside the existing boundary of Peterson SFB.

Table 1. Peterson SFB Installation Development Projects

Project ID*	Project Name	Description of the Proposed Action
1	North Gate Entry Control Point Project	This project involves the construction of a new North Gate complex. The new gate would continue to provide access via Peterson Boulevard from Highway 24 and E. Platte Avenue/Space Village Avenue.
2	Recreational Vehicle (RV) Storage Lot	This project consists of the conversion of approximately 12 acres of undeveloped land into a gravel parking lot to accommodate RV storage. The site for this project is located on the northeastern corner of Peterson SFB, south of Space Village Avenue.

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Table 1. Peterson SFB Installation Development Projects (Continued)

Project ID*	Project Name	Description of the Proposed Action
3	Colorado Springs Airport (COSA) 10-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 10-acre parcel of land for future development. Prior to COSA ownership, this parcel was owned by School District 11 and is therefore referred to as the D11 property. The square-shaped parcel is located near the northeastern border of Peterson SFB.
4	Colorado Springs Airport 168-Acre Lease	This project involves the acquisition of a lease agreement between the COSA and the USSF on a 168-acre parcel of land for future development. This parcel is located on the eastern side of the COSA runway and south of the eastern portion of Peterson SFB.
5	Special Operations Command North (SOCNORTH) Human Performance Training Center (HPTC)	This project involves the construction of a 12,000-square-foot permanent fitness center. This facility would be a one-story, high-bay structure with a low-sloped roof. The supporting infrastructure would include a parking garage and the development of stormwater controls. This 1 acre complex would be connected to family housing via a direct pedestrian/bike trail.
6	South Command Area Development	The South Command Area is approximately 29-acres located south of the major command headquarters on Peterson SFB. The proposed development would include two notional administrative facilities, associated parking garages, realignment of Paine Street, and removal of existing parking lots. This development would be designed to accommodate 1,500 new personnel.
7	Mission-Related Project	The mission support command project would involve construction of a new administrative building capable of accommodating approximately 360 personnel. The administrative building would be an approximately 50,000-square-foot building located within the 20-acre complex. The complex would be located north of Eldorado Street on the eastern portion of Peterson SFB.
8	Hazardous Waste Facility Project	This project would involve relocation of the existing Hazardous Waste Facility to a location behind the base exchange on the eastern portion of Peterson SFB. The building would be approximately 4,500 square feet in size and located on a 9-acre site on the eastern side of the base exchange.
9	Lodging Facility Project	This project would involve the continuing redevelopment of the Triangle Area on the base (between Peterson Boulevard, Stewart Avenue, and Paine Street) in accordance with the Triangle Area Development Plan (ADP). Proposed new development in this area would include the construction of lodging facilities, mixed-use facilities and a new parking structure. The total area of disturbance would be approximately 35 acres, and construction would occur over a 2-year period.
10	Electrical Grid Upgrade Project	This project involves installing approximately 24,000 linear feet of new electrical line (in concrete-encased duct bank), construction of a new substation, and construction of a switching station and associated underground wiring.

**See the map following for project locations*

The Area of Potential Effects (APE) for archaeological resources is defined as the discontinuous set of discrete disturbance footprints of each development project and any associated staging areas as shown on the map labeled as Attachment 1. Work within the development areas would include new construction, grading, and trenching. For historic architectural resources, the APE is defined as the discrete disturbance footprint of each project and 1,000 feet surrounding each footprint. A map of the APE for the individual projects of the undertaking is attached (Attachment 1). Six cultural resources surveys encompassing all of the APE on Peterson SFB have been completed, during which six isolated prehistoric artifacts were found; however, none of the artifacts were considered eligible for listing on the National Register of Historic Places (NRHP).

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In accordance with the National Historic Preservation Act (NHPA) (54 *USC* 306108) and its implementing regulations (36 *CFR* 800) and Executive Order (EO) 13175 (Consultation and Coordination with Tribal Governments), the USSF invites you to consult on a government-to-government basis on an upcoming project that may have the potential to impact significant cultural resources, including sites or resources associated with the traditional beliefs and practices of your tribe. To help us fulfill our obligation, I ask for your assistance in identifying any such properties on Peterson SFB and within the project's APE that are of significance to the Oglala Sioux Tribe. Historic properties include archeological sites, burial grounds, sacred landscapes or features, ceremonial areas, traditional cultural properties and landscapes, plant and animal communities, and buildings and structures with significant tribal association.

Currently, Peterson SFB is not aware of any historic properties of religious and cultural significance to the Oglala Sioux Tribe on the installation. Nevertheless, we ask for your assistance identifying any historic properties of which we may be unaware, particularly those which may be affected by the proposed undertaking described previously.

The Intergovernmental Coordination Act and EO 12372, (Intergovernmental Review or Federal Programs) require Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. In accordance with EO 12372, we invite the Oglala Sioux Tribe to review the proposed projects and provide comments on the Proposed Action. Please provide your comments relative to specific issues your office may have, based on your expertise and regulatory jurisdiction, including any technical information that may be necessary for project implementation. Any preliminary data your office can provide will be evaluated and incorporated into the EA.

The USSF looks forward to your participation in the NEPA and NHPA Section 106 processes. Please provide written comments within 30 days from the date of this letter to Mr. Antwan Jackson, 21 CS/CENB, 580 Goodfellow Street, Peterson SFB, CO 80914, antwan.jackson.1@spaceforce.mil. If you need further information or have any questions, please contact Mr. Jackson at 719-556-8059. Thank you for your assistance in this matter.

Sincerely,

ERICA E. TORTELLA, Lt Col, USAF
Commander, 21st Civil Engineer Squadron
Peterson Space Force Base, CO

Attachment
1. Map of Proposed Action Projects and Area of Potential Effects

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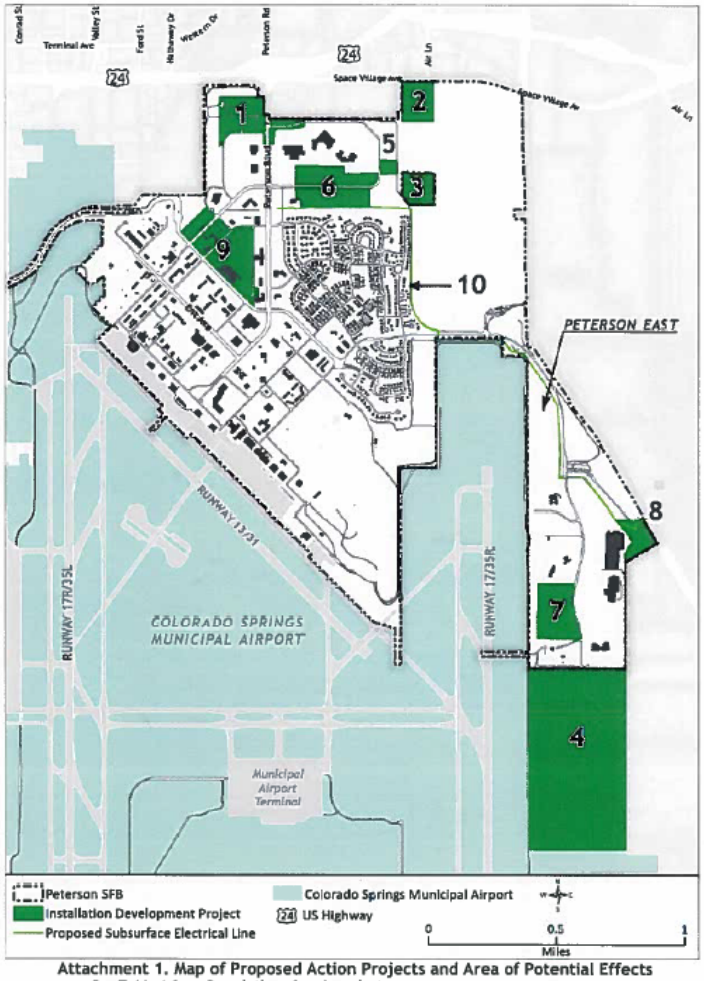

Attachment 1. Map of Proposed Action Projects and Area of Potential Effects
See Table 1 for a Description of each project

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RECORD OF TRIBAL OUTREACH AND TRIBAL LETTER RESPONSES

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Table A-1. Record of Tribal Outreach

Tribe	Initial Letter Sent	UPS/Certified Letter Received by Tribe	Follow-Up Phone Call	Draft EA Notice of Availability Letter	EA Response Summary	Physical Letter Received	Notes/Action Items
Apache Tribe of Oklahoma	4 February 2022	8 March 2022	1 April 2022	5 October 2022			
Assiniboine and Sioux Tribes	4 February 2022	8 March 2022	16 March 2022	5 October 2022			
Blackfeet Nation	4 February 2022	8 March 2022	16 March 2022				THPO Murray stated that if actions are on disturbed ground that no further contact is necessary.
Cheyenne and Arapaho Tribes of Oklahoma	4 February 2022	8 March 2022	16 March 2022	5 October 2022			
Cheyenne River Sioux Tribe	4 February 2022	8 March 2022	16 March 2022				THPO Vance stated to only contact them if and inadvertent discoveries are found
Comanche Nation of Oklahoma	4 February 2022	8 March 2022	1 April 2022	5 October 2022			
Crow Creek Sioux Tribe	4 February 2022	4 April 2022	4 April 2022				THPO Marks indicated not further contact is necessary
Crow Tribe	4 February 2022	8 March 2022	1 April 2022	5 October 2022			
Eastern Shoshone Tribe	4 February 2022	8 March 2022	1 April 2022	5 October 2022			
Flandreau Santee Sioux Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Fort Sill Apache Tribe	4 February 2022	8 March 2022	1 April 2022	5 October 2022			
Jicarilla Apache Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Kiowa Tribe of Oklahoma	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Mescalero Apache Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Navajo Nation	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Northern Arapaho Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			

Table A-1. Record of Tribal Outreach (continued)

Tribe	Initial Letter Sent	UPS/Certified Letter Received by Tribe	Follow-Up Phone Call	Draft EA Notice of Availability Letter	EA Response Summary	Physical Letter Received	Notes/Action Items
Little Shell Tribe of Chippewa Indians	4 February 2022	8 March 2022	21 March 2022				THPO Reid stated that Peterson SFB is out of their traditional homelands and prefer other tribes respond. No further communication is necessary.
Mescalero Apache Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Navajo Nation	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Northern Arapaho Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Northern Cheyenne Tribe	4 February 2022	9 March 2022	4 April 2022	5 October 2022			On 4/11/22, THPO Limpy sent an email asking for information about previous surveys
Oglala Sioux Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Pawnee Nation of Oklahoma	4 February 2022	9 March 2022	21 March 2022	5 October 2022			
Pueblo of Taos	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Pueblo of Zuni	4 February 2022		4 April 2022	5 October 2022			
Rosebud Sioux Tribe	4 February 2022	8 March 2022	21 March 2022	5 October 2022			
Santee Sioux Nation	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Southern Ute Indian Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Spirit Lake Nation	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Standing Rock Sioux Tribe	4 February 2022	9 March 2022	4 April 2022	5 October 2022			
Three Affiliated Tribes of the Mandan, Hidatsa and Arikara Nation	4 February 2022	8 March 2022	4 April 2022	5 October 2022			
Ute Indian Tribe of the Uintah and Ouray Reservation	4 February 2022		1 April 2022	5 October 2022			
Ute Mountain Ute Tribe	4 February 2022		30 March 2022	5 October 2022			
Yankton Sioux Tribe	4 February 2022	8 March 2022	4 April 2022	5 October 2022			

Appendix B

Air Conformity Applicability Model Report

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

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: PETERSEN AFB
State: Colorado
County(s): El Paso
Regulatory Area(s): Colorado Springs, CO

b. Action Title: Multi-Project EA for Peterson Space Force Base, Colorado

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2022

e. Action Description:

Construction of multiple development projects over a 10-year period and an addition of 2,000 new personnel.

f. Point of Contact:

Name: Chris Crabtree
Title: Air Quality Specialist/Meteorologist
Organization: Leidos Corp.
Email: chris.crabtree@leidos.com
Phone Number: 805-566-6422

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 176(c) has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	2.820		
NOx	15.512		
CO	17.307	100	No
SOx	0.043		
PM 10	68.777		
PM 2.5	0.630		
Pb	0.000		
NH3	0.014		
CO2e	4181.5		

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

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	3.961		
NOx	7.103		
CO	8.097	100	No
SOx	0.026		
PM 10	6.039		
PM 2.5	0.306		
Pb	0.000		
NH3	0.009		
CO2e	2331.5		

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	4.506		
NOx	6.128		
CO	50.707	100	No
SOx	0.048		
PM 10	0.289		
PM 2.5	0.277		
Pb	0.000		
NH3	0.277		
CO2e	6950.5		

2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	4.506		
NOx	6.128		
CO	50.707	100	No
SOx	0.048		
PM 10	0.289		
PM 2.5	0.277		
Pb	0.000		
NH3	0.277		
CO2e	6950.5		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Chris Crabtree, Air Quality Specialist/Meteorologist DATE

Appendix C

Biological Resources Supporting Information

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U.S. FISH AND WILDLIFE SERVICE INFORMATION FOR PLANNING AND CONSERVATION (IPaC) REPORT

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
Phone: (303) 236-4773 Fax: (303) 236-4005

In Reply Refer To:
Project Code: 2022-0054088
Project Name: Peterson SFB Multi-Project EA

June 14, 2022

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:

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 purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- 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:

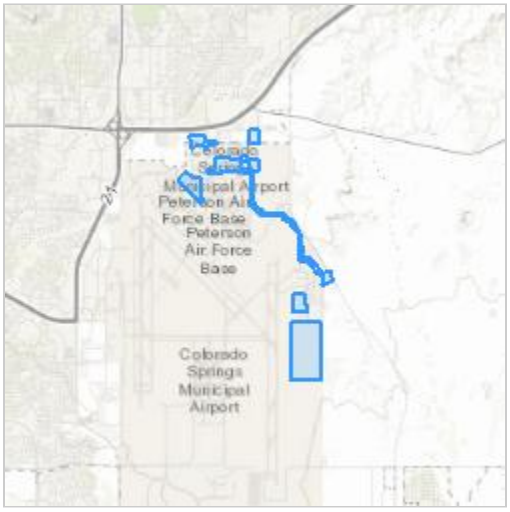
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
(303) 236-4773

Project Summary

Project Code: 2022-0054088
Event Code: None
Project Name: Peterson SFB Multi-Project EA
Project Type: Mixed-Use Construction
Project Description: Multiple construction projects encompassing a few hundred acres at Peterson SFB. Project also includes land transfer with no development

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.800813399999996,-104.67925819973614,14z



Counties: El Paso County, Colorado

Endangered Species Act Species

There is a total of 8 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. Note that 4 of these species should be considered only under certain conditions.

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.

---

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
Gray Wolf *Canis lupus* Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Lone, dispersing gray wolves may be present throughout the state of Colorado. If your activity includes a predator management program, please consider this species in your environmental review. Species profile: https://ecos.fws.gov/ecp/species/4488	Endangered

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10477

Piping Plover *Charadrius melodus*	Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.
There is **final** critical habitat for this species. The location of the critical habitat is not available.
This species only needs to be considered under the following conditions:

- Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/6039

Fishes

NAME	STATUS
Greenback Cutthroat Trout *Oncorhynchus clarkii stomias*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2775

Pallid Sturgeon *Scaphirhynchus albus*	Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/7162

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses *Spiranthes diluvialis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2159

Western Prairie Fringed Orchid *Platanthera praeclara*	Threatened

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/1669

Critical habitats

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

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.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Jul 31
Ferruginous Hawk *Buteo regalis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6038	Breeds Mar 15 to Aug 15

NAME	BREEDING SEASON
Lewis's Woodpecker *Melanerpes lewis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

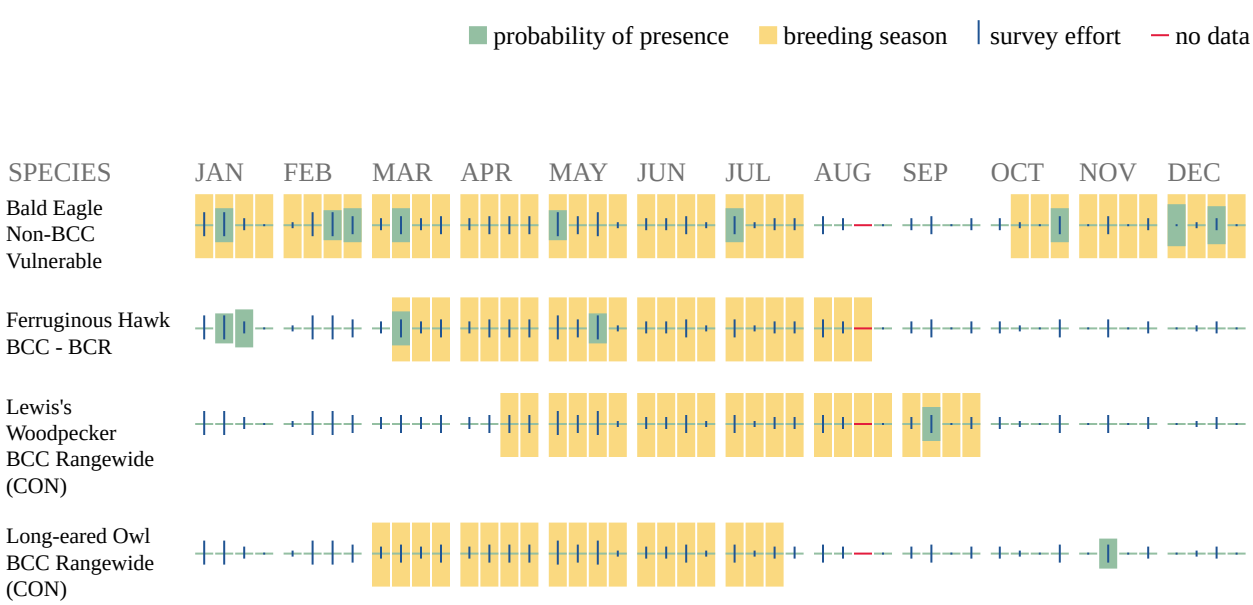
Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPaC User Contact Information

Agency: Air Force
Name: Brian Tutterow
Address: 13397 Lakefront Avenue
City: Earth City
State: MO
Zip: 63045
Email btutterow100@gmail.com
Phone: 3146203426

Lead Agency Contact Information

Lead Agency: Air Force
Name: Tyler Dugan
Email: tyler.dugan.1@spaceforce.mil
Phone: 7195566100

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