

Finding of No Significant Impact:
Environmental Assessment Addressing Construction and Operation of a Disposition
Services Complex at DLA Disposition Services Colorado Springs, Colorado
July 2021

Introduction

Defense Logistics Agency (DLA) developed an Environmental Assessment (EA) to address the potential environmental consequences associated with the Proposed Action to construct and operate a new Disposition Services Complex at DLA Disposition Services Colorado Springs, which is on Fort Carson in Colorado Springs, Colorado. The purpose of the Proposed Action is to replace lost and inadequate DLA Disposition Services Colorado Springs facilities with modern, efficient facilities. The Proposed Action is needed because the current Disposition Services Complex has an insufficient amount of enclosed building area to process and store materiel, does not meet Fort Carson's standards for metals in stormwater discharge because of uncovered metallic material storage areas, and will be critically impacted by Fort Carson's planned Gate 3 realignment and road projects.

Description of the Proposed Action

Under the Proposed Action, DLA would construct and operate a new Disposition Services Complex on an approximately 12.8-acre parcel within the Logistics District of Fort Carson. The project site is bounded by Hare Avenue on the south and Chiles and Specker Avenues on the west and east, respectively, and is currently occupied by a graded and graveled contractor laydown yard and undeveloped land. The Proposed Action includes removal of the contractor laydown yard, which would involve removal of utilities, pavement, site lighting, and fencing. The 12.8-acre project area would be grubbed and graded prior to construction.

The new Disposition Services Complex would consist of three main areas: 1) a 72,200-square foot (ft²) general purpose warehouse with an attached 8,000 ft² administration annex (total 80,200 ft²), 2) a 1,200 ft² material handling equipment building, and 3) approximately 7.4 acres of outdoor open storage areas (paved, fenced, and guttered) for an open storage lot and a scrapyard. Other features include truck scales, a loading ramp, a Radiation Assessment Detector, storm drainage, detention pond, fire protection, site information systems, site lighting, solar panels, fencing with gates, and paving (access roadways, hardstand aprons, parking, and walkways). All necessary utilities, including electricity, water, wastewater, natural gas, and communication services, would be extended to the new complex. No change in the number of personnel working at the complex is proposed and no long-term mission or operation changes are anticipated that would affect materiel storage or workload needs.

Relocation of the contractor trailers and Building 249 (trailer) from the project area to a different area and extension of utilities to the relocated contractor trailers and Building 249 is a connected action that is described and analyzed separately from the Proposed Action (see Appendix A of the EA). This action is not part of the Proposed Action but is assessed in the EA as a connected action.

No Action Alternative

Under the No Action Alternative, DLA would not construct a new Disposition Services Complex at Fort Carson. DLA Disposition Services Colorado Springs would continue to lack a replacement facility for demolished Building 318; operate in inefficient, outdated facilities that require dwindling Sustainment, Restoration, and Modernization dollars to maintain; have an insufficient amount of enclosed building area to process and store materiel; and store metallic material in an uncovered storage area. Additionally, implementation of the planned Gate 3

reconfiguration and road projects would displace some of the current Disposition Services Complex facilities and introduce heavy vehicle traffic to the portions of Wickersham Boulevard and Specker Avenue that separate the buildings and open storage areas of the current complex. This would result in unacceptable safety risks for pedestrian and materiel movement between storage areas and further degradation of operations through inefficient workflows and reduced quality of support to DLA Disposition Services customers. The No Action Alternative would not meet the purpose of and need for the Proposed Action.

Alternatives

DLA considered four action alternatives, including the Proposed Action, and used screening criteria to determine whether alternatives were considered reasonable. The screening criteria included efficiency, safety, location, presence of utility main lines, manageability of environmental constraints, minimal site preparation needed, and Fort Carson's mission (see Section 2.3 of the EA). Three of the action alternatives were considered but eliminated from detailed analysis because they did not meet one or more of the screening criteria (see Section 2.4 of the EA). These eliminated alternatives included retaining and renovating the current Disposition Services Complex, constructing a new Disposition Services Complex at the railhead site east of the current complex, and constructing a new Disposition Services Complex at the wilderness plateau site south of the cantonment area. The Proposed Action was the only action alternative that met the screening criteria and was consequently selected for detailed analysis in the EA.

Public Review

Pursuant to 651.14(b), Title 32 Code of Federal Regulations (Environmental Analysis of Army Actions), the Army made the EA and Draft Finding of No Significant Impact (FNSI) available to the public for review and comment 30 days (June 2, 2021 to July 1, 2021) prior to a final decision. A Notice of Availability of the documents was announced in local media. The documents are available online at: <http://www.carson.army.mil/organizations/dpw.html#three>. One comment from the Comanche Nation was received on June 28, 2021, and noted "no properties" have been identified within the project area.

Summary of the Environmental Consequences

No significant impacts are anticipated as a result of implementing the Proposed Action and connected action. The potential impacts have been broken down by duration (i.e., short- or long-term), magnitude (i.e., negligible, minor, moderate, or significant), and whether the impacts would be adverse or beneficial. Several resource areas were dismissed from detailed analysis (see Section 3.2 of the EA). The dismissed resource areas include aesthetics and visual resources, airspace management, geological resources, health and safety, land use, and socioeconomics and environmental justice.

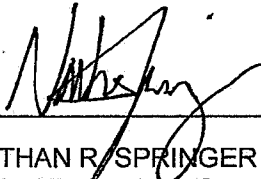
The combined effects of the Proposed Action and connected action would result in insignificant, adverse effects on air quality, biological resources, hazardous materials and wastes, infrastructure (utilities and transportation), noise, and water resources; insignificant, beneficial effects on water resources; and no effects on cultural resources. Details of the environmental consequences are discussed in the EA, which is hereby incorporated by reference.

Mitigation Measures

The EA did not identify the need for mitigation measures for the Proposed Action or connected action.

Conclusion and Findings

Based on careful review of the EA, I have determined that no significant impacts to the human or natural environment are anticipated because of the implementation of the Proposed Action and connected action. The combination of the Proposed Action and connected action is not a major federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of NEPA, and an environmental impact statement is not required and will not be prepared. My decision is based on the potential environmental and socio-economic impacts associated with the Proposed Action and connected action as is analyzed in the EA. This decision complies with legal requirements and takes into account all submitted information regarding reasonable alternatives and environmental impacts.



NATHAN R. SPRINGER
COL, AR, Garrison Commander
Fort Carson, Colorado

Date: 22 July 21



Environmental Assessment Addressing Construction and Operation of a Disposition Services Complex

DLA Disposition Services, Colorado Springs,
Colorado

July 2021



**Environmental Assessment Addressing
Construction and Operation of a Disposition Services Complex
DLA Disposition Services, Colorado Springs, Colorado
July 2021**

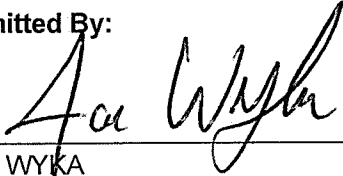
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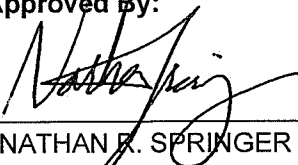


JOE WYKA
Director
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16 JUL 2021

Date

Approved By:



NATHAN R. SPRINGER
COL, AR
Garrison Commander
Fort Carson, CO 80913

22 July 21

Date

ENVIRONMENTAL ASSESSMENT ADDRESSING CONSTRUCTION AND OPERATION OF A DISPOSITION SERVICES COMPLEX AT DLA DISPOSITION SERVICES COLORADO SPRINGS, COLORADO

Responsible Agency: Defense Logistics Agency (DLA).

Affected Location: DLA Disposition Services Colorado Springs on Fort Carson, Colorado Springs, Colorado.

Report Designation: Final Environmental Assessment.

Abstract: DLA proposes to construct and operate a new Disposition Services Complex at DLA Disposition Services Colorado Springs, which is on Fort Carson in Colorado Springs, Colorado. The purpose of the Proposed Action is to replace lost and inadequate DLA Disposition Services Colorado Springs facilities with modern, efficient facilities. The Proposed Action is needed because the current Disposition Services Complex has an insufficient amount of enclosed building area to process and store materiel, does not meet Fort Carson's standards for metals in stormwater discharge because of uncovered metallic material storage areas, and will be critically impacted by Fort Carson's planned Gate 3 realignment and road projects.

The proposed location for the new Disposition Services Complex is currently a contractor laydown yard and undeveloped land. The Proposed Action includes removal of the contractor laydown yard, which would involve removal of utilities, pavement, site lighting, and fencing. The 12.8-acre project area would be grubbed and graded prior to construction.

The new Disposition Services Complex would consist of three main areas: 1) a 72,200-square foot (ft²) general purpose warehouse with an attached 8,000 ft² administration annex (total 80,200 ft²), 2) a 1,200 ft² material handling equipment building, and 3) approximately 7.4 acres of outdoor open storage areas (paved, fenced, and guttered) for an open storage lot and a scrapyards. Other features include truck scales, a loading ramp, a Radiation Assessment Detector, storm drainage, detention pond, fire protection, site information systems, site lighting, solar panels, fencing with automated and manual gates, and paving (access roadways, hardstand aprons, parking, and walkways). All necessary utilities, including electricity, water, wastewater, natural gas, and communication services, would be extended to the complex. No change in the number of personnel working at the complex is proposed and no long-term mission or operation changes are anticipated that would affect materiel storage or workload needs.

Following construction of the new Disposition Services Complex, DLA Disposition Services would retain use of M yard (2.9-acre open storage area) for storage of rolling stock, repurpose Building 344 for bulk materiel storage, and return the remainder of the current Disposition Services Complex to Fort Carson. Continued use of M yard and Building 344 and return of the remainder of the current Disposition Services Complex are not part of the Proposed Action.

Relocation of the contractor trailers and Building 249 (trailer) from the project area to a different area and extension of utilities to the relocated contractor trailers and Building 249 is a connected action that is described and analyzed separately from the Proposed Action (see **Appendix A**). This action is not part of the Proposed Action but is assessed as a connected action.

Under the No Action Alternative, DLA would not construct a new Disposition Services Complex at Fort Carson. DLA Disposition Services Colorado Springs would continue to lack a replacement

facility for demolished Building 318; operate in inefficient, outdated facilities that require dwindling Sustainment, Restoration, and Modernization dollars to maintain; have an insufficient amount of enclosed building area to process and store materiel; and store metallic material in uncovered storage areas. Additionally, implementation of the planned Gate 3 reconfiguration and road projects would displace some of the current Disposition Services Complex facilities and introduce heavy vehicle traffic to the portions of Wickersham Boulevard and Specker Avenue that separate the buildings and open storage areas of the current complex. This would result in unacceptable safety risks for pedestrian and materiel movement between storage areas and further degradation of operations through inefficient workflows and reduced quality of support to DLA Disposition Services customers. The No Action Alternative would not meet the purpose of and need for the Proposed Action.

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List of Acronyms

ACM	asbestos-containing material	MBTA	Migratory Bird Treaty Act
APE	area of potential effects	MHE	material-handling equipment
BMP	best management practice	MSGP	Multi-Sector General Permit
CDA	Colorado Department of Agriculture	NAAQS	National Ambient Air Quality Standards
CEQ	Council on Environmental Quality	NEPA	National Environmental Policy Act
CFR	Code of Federal Regulations	NHPA	National Historic Preservation Act of 1966
CNHP	Colorado Natural Heritage Program	NPDES	National Pollutant Discharge Elimination System
CO	carbon monoxide	NRHP	National Register of Historic Places
CPW	Colorado Parks and Wildlife	PA	Programmatic Agreement
CWA	Clean Water Act	PCB	polychlorinated biphenyl
dB	decibel	pCi/L	picocuries per liter
dBA	A-weighted decibel	PSD	Prevention of Significant Deterioration
DLA	Defense Logistics Agency	RAD	radiation assessment detector
EA	Environmental Assessment	SAR	Species at Risk
EIS	Environmental Impact Statement	SHPO	State Historic Preservation Officer
EO	Executive Order	SWMU	Solid Waste Management Unit
ERP	Environmental Restoration Program	SWPPP	Stormwater Pollution Prevention Plan
FNSI	Finding of No Significant Impact	tpy	tons per year
ft ²	square foot/feet	UFC	Unified Facilities Criteria
GHG	greenhouse gas	USC	United States Code
GPW	general purpose warehouse	USEPA	United States Environmental Protection Agency
HWMP	Hazardous Waste Management Plan	USFWS	United States Fish and Wildlife Service
ICRMP	Integrated Cultural Resources Management Plan		
LBP	lead-based paint		
LEED	Leadership in Energy and Environmental Design		

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1 Proposed Action Purpose and Need

1.1 Introduction

Fort Carson is in El Paso County, Colorado, adjacent to southern portion of Colorado Springs, Colorado (see **Figure 1-1**). Defense Logistics Agency (DLA) is a tenant on Fort Carson and operates DLA Disposition Services Colorado Springs. The mission of DLA Disposition Services Colorado Springs is the reutilization, transfer, donation, sales, and environmental disposal of materiel received from military installations in Colorado, Wyoming, and New Mexico, as well as locally from the United States Air Force Academy and Schriever Air Force Base, and for the Colorado National Guard.

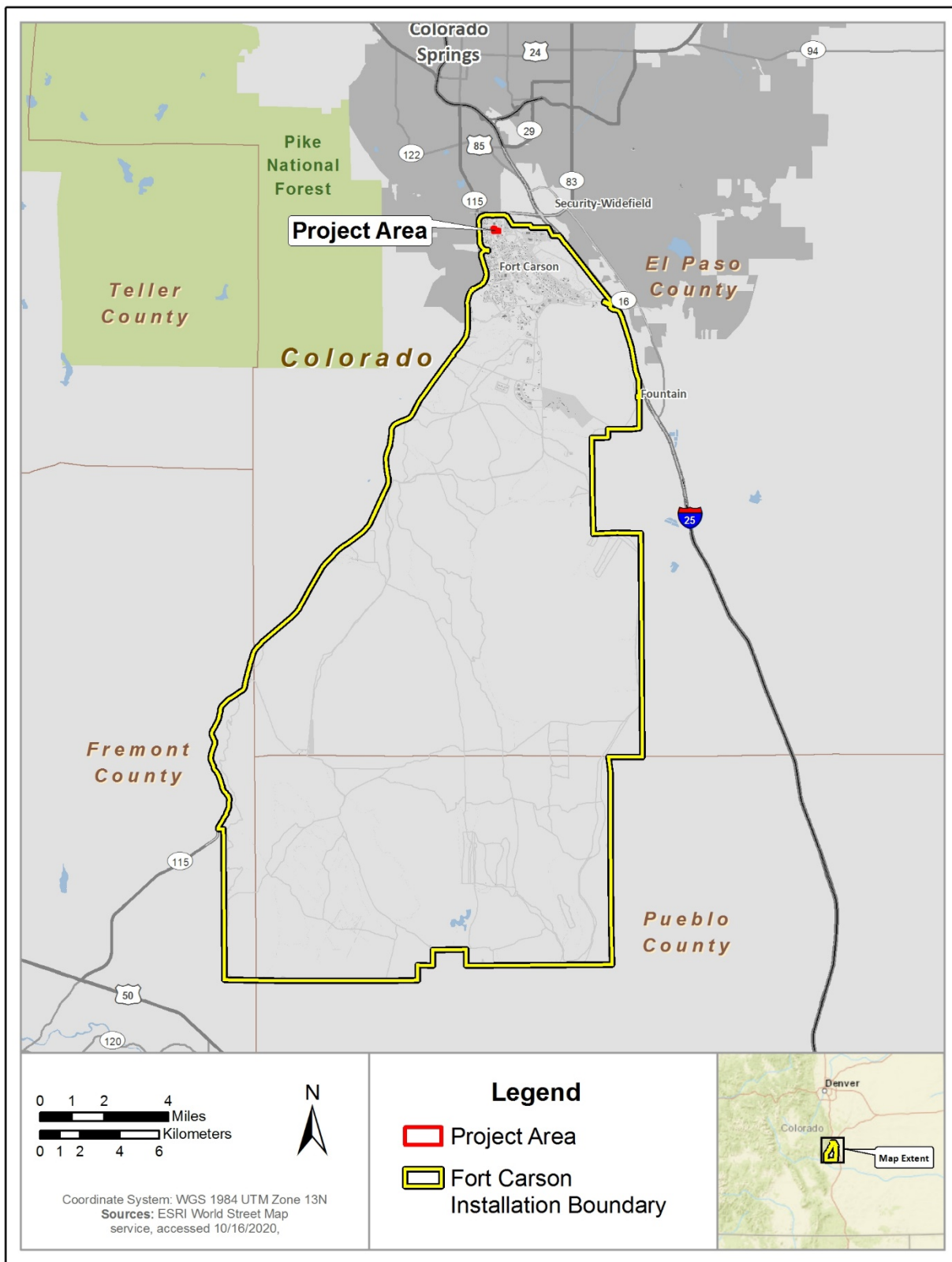
Current DLA Disposition Services mission activities at Fort Carson are supported from seven outdated warehouses (i.e., Buildings 320, 324, 340, 341, 342, 343, and 344); a grouping of temporary trailers that serve as an administrative area; and four outdoor storage areas (i.e., M yard, N yard, scrapyard, and rolling stock yard). N yard and the scrapyard are adjacent to the current complex, while M yard and the rolling stock yard are separated from the current complex by Specker Avenue. Building 318, which functioned as a materiel storage and processing structure, was condemned in mid-2015 and has since been demolished, leaving DLA Disposition Services Colorado Springs with an insufficient amount of enclosed building area in which to process and store materiel. The arrangement of multiple buildings also leads to inefficient processing of materiel and strains DLA's ability to meet customer demands and satisfy its mission. The complex's 1970s-era buildings are substandard steel-framed, metal-clad structures with low ceilings and minimal amenities that are typical of utilitarian buildings constructed during that time. General structural deficiencies include a lack of fire protection systems in all but one building, deficient size, inefficient configuration, and operation past Unified Facilities Criteria (UFC) useful service life guidance of 36 years. The current Disposition Services Complex configuration has less than half the building area required to handle the volume of materiel managed at the complex (DLA 2020).

In 2016, uncovered storage of metallic material contributed to dissolved metal concentrations in stormwater at the southern end of the current complex that exceeded the Fort Carson National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) effluent limits for dissolved metals. Best management practices (BMPs), including containers, coverings, wattles, and drip pans, have been employed to reduce stormwater effluents in accordance with Fort Carson policy (DLA 2020, DLA 2021a, DLA 2021b).

Implementation of Fort Carson's planned Gate 3 realignment and road projects would displace the current Disposition Services Complex scrapyard, rolling stock yard, vehicle scales, radiation assessment detector (RAD), and Building 324. The revised traffic flow would introduce heavy vehicle traffic to the portions of Wickersham Boulevard and Specker Avenue that separate the buildings and open storage areas of the current complex, presenting a safety hazard and making the overall operation of the complex functionally obsolete (DLA 2019, DLA 2020).

This Environmental Assessment (EA) addresses DLA's proposal to construct and operate a new Disposition Services Complex at DLA Disposition Services Colorado Springs, which is on Fort Carson (see **Figure 1-1**). It also analyzes the potential for significant environmental impacts associated with the Proposed Action and the No Action Alternative.

Figure 1-1. Project Area, Fort Carson, and Surrounding Area



This EA has been prepared in compliance with the National Environmental Policy Act (NEPA); Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 Code of Federal Regulations [CFR] §§ 1500–1508)(revised July 16, 2020); 32 CFR § 651, *Environmental Analysis of Army Actions*; and U.S. Army memorandum, *Implementation of the Council on Environmental Quality's Updated National Environmental Policy Act Final Rule* (dated August 26, 2020). DLA's regulation for NEPA compliance is DLA Regulation 1000.22, *Environmental Considerations in Defense Logistics Agency Actions*. Because DLA is a tenant on Fort Carson, a U.S. Army supported installation, this EA is subject to U.S. Army implementing regulations for NEPA.

1.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to replace lost and inadequate DLA Disposition Services Colorado Springs facilities with modern, efficient facilities.

The Proposed Action is needed because the current Disposition Services Complex has an insufficient amount of enclosed building area to process and store materiel, does not meet Fort Carson's standards for metals in stormwater discharge because of uncovered metallic material storage areas, and will be critically impacted by Fort Carson's planned Gate 3 realignment and road projects.

1.3 Summary of Key Environmental Compliance Requirements

1.3.1 National Environmental Policy Act

NEPA, codified in 42 United States Code (USC) § 4321 et seq., was signed into law on January 1, 1970. The Act established a national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within federal agencies. The Act also established the CEQ to coordinate federal environmental efforts. The process for implementing NEPA is outlined in 40 CFR §§ 1500–1508. CEQ regulations specify that an EA serves to provide sufficient evidence and analysis for determining whether to prepare a Finding of No Significant Impact (FNSI) or an Environmental Impact Statement (EIS). In accordance with Army NEPA regulations at 32 CFR § 651.4(o), the Fort Carson Installation Commander must ensure proper NEPA coordination between installation staff and tenant organizations and approve NEPA analyses for pertinent NEPA actions.

This EA analyzes the potential for environmental effects associated with the Proposed Action and the No Action Alternative. If the analyses presented in this EA indicate that the Proposed Action would not result in significant environmental or socioeconomic effects, then a FNSI will be prepared. A FNSI briefly presents the reasons why a proposed action would not have a significant effect on the human environment and why an EIS would not be necessary. If the analyses presented in this EA indicate that significant environmental effects would result from the Proposed Action that cannot be mitigated to insignificant levels, a Notice of Intent to prepare an EIS would be required or no action would be taken.

1.3.2 Applicable Environmental and Regulatory Compliance

The NEPA process does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or EIS, which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action.

1.4 Agency Coordination and Public Involvement

All agencies and members of the public with an interest in the Proposed Action and alternatives were invited to participate in this NEPA process, which provided the government with the opportunity to coordinate with and consider the views of other agencies and individuals. In addition, Fort Carson would facilitate consultation, if requested, with federal, state, and local officials and organizations that could be affected by the Proposed Action and alternatives. The goal of the NEPA process is to enhance the quality of federal decisions by involving the public in the planning process.

Information regarding consultation with the Colorado State Historic Preservation Officer (SHPO), Native American tribes, and the United States Fish and Wildlife Service (USFWS) is provided in **Section 3**.

The Draft EA and Draft FNSI were available for a 30-day public comment period from June 2, 2021 to July 1, 2021. A notice of availability for the documents was published in the *Colorado Springs Gazette*, *Colorado Springs Independent*, and *El Paso County Advertiser and Fountain Valley News*, and the documents are available online at:

<https://www.carson.army.mil/organizations/dpw.html#three>. Anyone wishing to provide comment on the Proposed Action, Draft EA, or Draft FNSI, or to request additional information, was advised to provide comments in writing to the U.S. Army Garrison Fort Carson NEPA Program Manager, Directorate of Public Works, Environmental Division, 1626 Evans Street, Building 1219, Fort Carson, Colorado 80913-4362 or submit comments via email to usarmy.carson.imcom-central.list.dpw-ed-nepa@mail.mil. One comment from the Comanche Nation was received on June 28, 2021, and noted “no properties” have been identified within the project area (see **Appendix D**).

2 Proposed Action and Alternatives Description

2.1 Proposed Action

DLA proposes to construct and operate a new Disposition Services Complex on an approximately 12.8-acre parcel within the Logistics District of Fort Carson, Colorado. The proposed site (project area) is bordered by Hare Avenue on the south and Chiles and Specker Avenues on the west and east, respectively, and is currently occupied by a contractor laydown yard (area for storage of construction materials and administrative trailers) and undeveloped land (see **Figure 2-1**). The new Disposition Services Complex would replace the current Disposition Services Complex and operate as a clearinghouse for used and surplus government property. It would consist of three main areas: 1) a general purpose warehouse (GPW) with an attached administration annex, 2) a material-handling equipment (MHE) building, and 3) outdoor open storage areas for an open storage lot and a scrapyard (see **Figure 2-2**).

Demolition. The project area for the new Disposition Services Complex is primarily a graded and gravel lot used as a contractor laydown yard, while the rest of the area is an undeveloped field vegetated with grass and small shrubs. The Proposed Action includes removal of the contractor laydown yard, which would require disconnecting, cutting, and capping all utility connections (i.e., electricity, natural gas, water, sewer, and communications) and removal of existing asphalt pavement (approximately 1,300 square feet [ft²]), concrete driveways (approximately 480 ft²), site lighting, and fencing. The existing electrical service transformers and associated primary feeder would be maintained; however, the secondary feeders would be removed. Depending on the size of utility service lines required at the new Disposition Services Complex, existing main tie-ins may be re-tasked. Fort Carson Department of Public Works cautions that there may be abandoned utility mains onsite that would require removal and considers the site to be clean and free of explosive ordnance (DLA 2020).

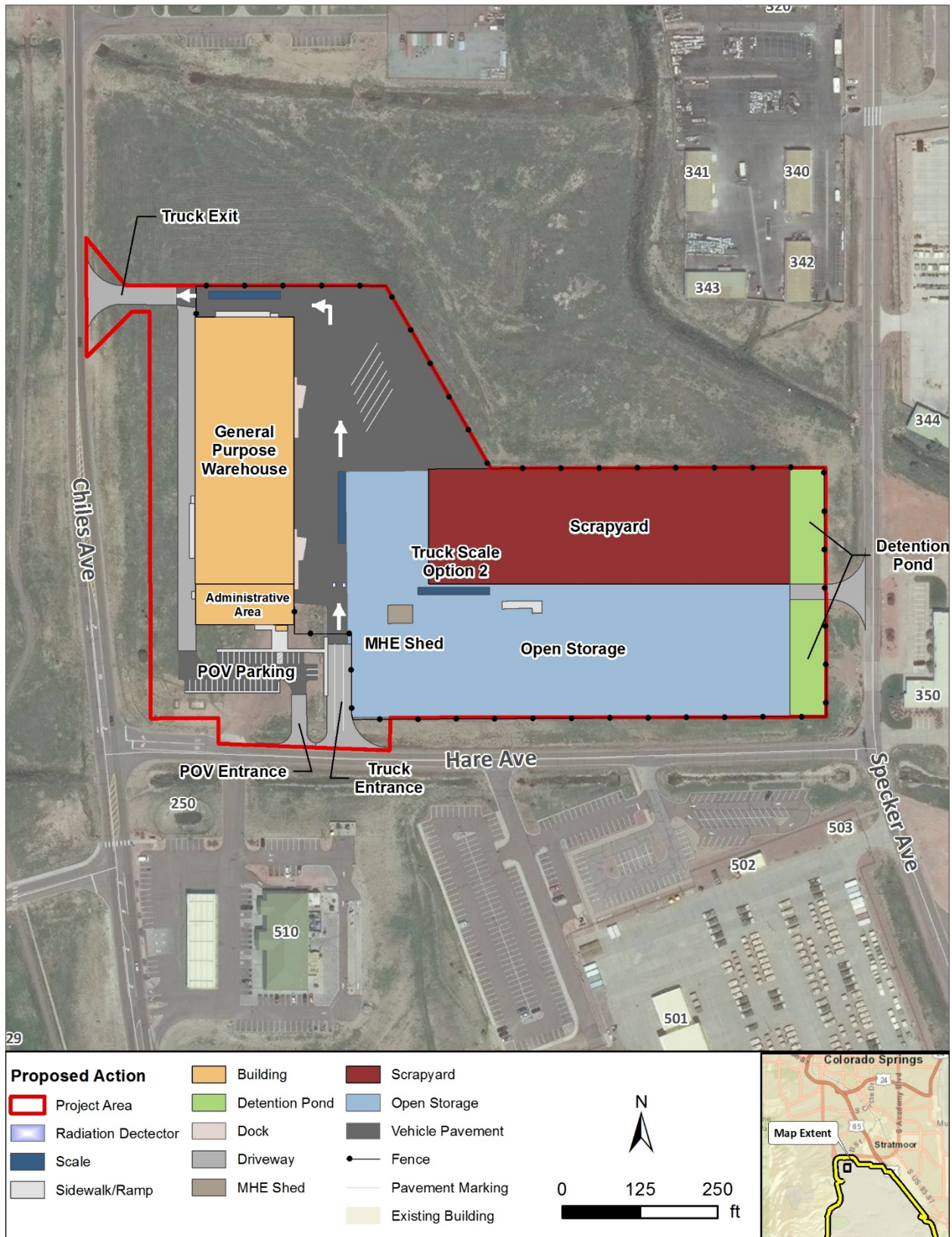
Construction. Proposed construction includes a 72,200 ft² GPW with an attached 8,000 ft² administration annex (total 80,200 ft²), a 1,200 ft² MHE building, and approximately 7.4 acres of outdoor open storage areas (paved, fenced, and guttered) for an open storage lot and a scrapyard. The GPW would be a permanent, noncombustible building with concrete floors and an 18-foot clear stacking height, two canopy-covered truck dock doors, and angled loading/unloading docks with a ramp component. The administration annex would incorporate standard office finishes including carpeted floors, gypsum wallboard, and acoustic tile ceilings. A reception area, offices, break room, conference room, training room, restrooms, fire pump facilities, sprinkler valves, mechanical/electrical systems, and accessible access to the building also would be included. Approximately two-thirds of the outdoor open storage areas would be dedicated to an open storage lot with the remaining one-third operating as a scrapyard. The 1,200 ft² MHE building would be constructed in the open storage lot and used as a cover for outdoor diesel-powered forklifts (DLA 2020). The project area would be grubbed and graded prior to construction.

Other features of the proposed complex include truck scales, a loading ramp, RAD, storm drainage, detention pond, fire protection, site information systems, site lighting, solar panels, fencing with automated and manual gates, and paving (access roadways, hardstand aprons, parking, and walkways). Two options for placement of the truck scales would be considered: 1) placement of one truck scale at the complex's truck entrance and one truck scale at the complex's truck exit, and 2)

Figure 2-1. Proposed Disposition Services Complex Project Area



Figure 2-2. Proposed Action



placement of one truck scale within the open storage lot, adjacent to the MHE building (see **Figure 2-1**). The exact configuration and placement of truck scales would be determined in follow-on design phases (DLA 2020).

Solar panels would be installed on covered privately-owned vehicle parking spaces and would include a dedicated panelboard, circuits, and grounding conductor. All necessary utilities, including electricity, water, wastewater, natural gas, and communication services, would be extended to the new complex (DLA 2020).

The proposed paving improvements include repaving and new paving of open storage areas, privately-owned vehicle parking (35 parking spaces for 24 employees and visitors), walkways, a concrete apron adjacent to the GPW dock areas, a semitrailer truck parking and maneuvering area, and new access drives and heavy-duty truck turnoff drives. These improvements would incorporate stormwater culverts and road enhancements (DLA 2020).

The new complex would include a detention pond to address stormwater runoff from its impervious areas. Stormwater from the detention pond would be released to an existing drainage ditch to the north of the project area and then conveyed to a culvert under Specker Avenue east of the project area. The exact size and location of the detention pond would be determined during follow-on design phases, but it would not be constructed in existing drainage ditches, streams, wetland areas, or 100-year floodplain areas. An existing shallow bar ditch along the southern perimeter of the project area also would collect and convey stormwater from the complex. To address metals in stormwater runoff, DLA would store all metals off the ground (e.g., on pallets, in bins) and use covered or sealed containers when needed. Additionally, all new buildings would employ stormwater BMPs to effectively treat stormwater effluents. A high-capacity oil-water separator would be installed downstream of the detention pond.

Construction of the new Disposition Services Complex would result in approximately 12.8 acres of ground disturbance, 1,780 ft² of pavement and concrete removal, 7.4 acres of pavement and concrete construction, and 81,400 ft² of building construction. Demolition would include removal of approximately 1.1 acres of impervious surfaces at the current contractor laydown yard. Construction would result in approximately 12.2 acres of impervious surfaces. Therefore, the Proposed Action would increase impervious surfaces of the project area by approximately 11.1 acres. Design of the new complex and all stormwater features would meet the requirements of applicable statutes and regulations including Sustainable Design and Development; Energy Policy Act of 2005; Energy Independence and Security Act of 2007; UFC 3-201-01, *Civil Engineering*; UFC 3-210-10, *Low-Impact Development*, and Fort Carson Development Standards for stormwater (DLA 2020).

The new buildings would be designed to meet Leadership in Energy and Environmental Design (LEED) silver rating design standards and comply with DLA energy guidelines. The complex would be designed to meet the requirements of the current version of UFC 4-010-01, *Department of Defense Minimum Antiterrorism Standards for Buildings*, as well as the Fort Carson Installation Design Guide. Construction would begin in fiscal year 2026 and last approximately 2 years (DLA 2020).

Operation. No change in the number of personnel working at the complex is proposed and no long-term mission or operation changes are anticipated that would affect materiel storage or workload needs. The new complex would continue to use the existing forklifts.

2.2 Related Actions

Retention and Return. Following construction of the new Disposition Services Complex, DLA Disposition Services would retain use of M yard (2.9-acre open storage area) for storage of rolling stock, repurpose Building 344 for bulk materiel storage, and return the remainder of the current Disposition Services Complex to Fort Carson (DLA 2020). Continued use of M yard and Building 344 and return of the remainder of the current Disposition Services Complex are not part of the Proposed Action.

Connected Action. Relocation of the contractor trailers and Building 249 (trailer) from the project area to a different area and extension of utilities to the relocated contractor trailers and Building 249 is a connected action that is described and analyzed separately from the Proposed Action (see **Appendix A**). This action is not part of the Proposed Action but is assessed as a connected action.

2.3 Screening Criteria of Alternatives

Considering alternatives helps to avoid unnecessary effects and allows for an analysis of reasonable range of ways to achieve a purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must meet the purpose of and need for the action, be technically and economically feasible, and, where applicable, meet the goals of the applicant.

DLA used the following selection criteria to determine whether alternatives were considered reasonable for the Proposed Action:

- efficient use of space
- features to separate pedestrian movement and heavy vehicle traffic for safety
- right location to promote as a regional hub for all services
- location within the Fort Carson Logistics District
- vicinity to Gate 3 (commercial vehicle gate) and DLA Disposition Services customers
- presence of utility main lines
- manageable environmental constraints
- minimal grading/site preparation
- consistent with Fort Carson's mission (DLA 2016).

2.4 Alternatives Considered but Eliminated from Detailed Analysis

DLA considered but eliminated three alternatives from detailed analysis because they did not meet one or more of the selection criteria presented in **Section 2.3**.

2.4.1 Retain and Renovate

This alternative includes constructing a new Disposition Services Complex in the same location as the current complex. It involves renovation of Building 318, which has been demolished since development of the alternative, demolition of Buildings 320, 340, 341, 342, 343, and 344, and retention of some of the existing open storage areas. However, the planned Gate 3 reconfiguration and road projects would require the relocation of the current Disposition Services Complex

scrapyard, part of the rolling stock yard, truck scales, RAD, and Building 324. It also would introduce heavy vehicle traffic to the portions of Wickersham Boulevard and Specker Avenue that separate the buildings and open storage areas of the current complex, presenting a safety hazard and making overall operation of the complex functionally obsolete. In addition, this alternative is not viable because of its location on a capped landfill, which restricts digging or building new structures on the site (DLA 2016, DLA 2019).

This alternative was eliminated from detailed analysis because of multiple contributing slope failure factors that would affect construction (i.e., soil saturation, overly steep slopes, unfavorable geology, building and content load, and vibrations from the proximity to the railroad line) and land constraints associated with the capped landfill. It also was eliminated because implementation of the planned Gate 3 reconfiguration and road projects would displace several portions of the current complex and introduce heavy vehicle traffic, which would result in inefficient and unsafe work conditions (DLA 2019).

2.4.2 Railhead Site – East of Current Complex

This alternative includes constructing a new Disposition Services Complex adjacent to the rail yard east of the current complex. It involves demolition of 13 structures (i.e., Buildings 209, 210, 213, 214, 300, 301, 302, 305, 307, 308, 309, 310, and 311) and 457,000 ft² of pavement; permanent removal of 30,000 ft² of grass and trees; and construction of 64,012 ft² of structures, 635,976 ft² of pavement, a 40,000 ft² bio-retention area, and associated fencing. The new Disposition Services Complex would be farther from Gate 3 and separated by the railway lines, which could negatively impact operations and introduce safety concerns. In addition, the new complex would be separated into three operational areas by Tevis Street and Wickersham Boulevard, which would require movement of materiel across active roadways and result in inefficient and unsafe work conditions.

This alternative was eliminated from detailed analysis because of safety concerns, inefficient use of space, and conflict with Fort Carson's mission. Fort Carson leadership deemed this proposed location for the Disposition Services Complex nonviable and prefers to retain control of the land adjacent to the railhead for mission-essential functions.

2.4.3 Wilderness Plateau Site – South of Cantonment Area

This alternative includes constructing a new Disposition Services Complex adjacent to an industrial area approximately 7 miles southeast of the current complex. Proximity to Interstate 25 and siting outside of the existing Fort Carson fence line would be an ideal logistical location and provide DLA Disposition Services with more control over truck access. However, the existing roadways in the vicinity of this site are in poor condition and Fort Carson main utility and communication lines do not extend to the area. Utilities such as water, sewer, and natural gas would need to be extended from existing lines in the city of Fountain, and power distribution lines would need to be extended from existing facilities at Fort Carson. The remote location of the new complex would not meet the required fire response time in case of an emergency and siting outside of the existing Fort Carson fence line would require additional security measures.

This alternative was eliminated from detailed analysis because of safety concerns, location outside the Fort Carson Logistics District, distance from Gate 3 and DLA Disposition Services customers, and absence of utility main lines.

2.5 No Action Alternative

Under the No Action Alternative, DLA would not construct a new Disposition Services Complex at Fort Carson. DLA Disposition Services Colorado Springs would continue to lack a replacement facility for demolished Building 318; operate in inefficient, outdated facilities that require dwindling Sustainment, Restoration, and Modernization dollars to maintain; have an insufficient amount of enclosed building area to process and store materiel; and store metallic material in uncovered storage area. Additionally, implementation of the planned Gate 3 reconfiguration and road projects would displace some of the current Disposition Services Complex facilities and introduce heavy vehicle traffic to the portions of Wickersham Boulevard and Specker Avenue that separate the buildings and open storage areas of the current complex. This would result in unacceptable safety risks for pedestrian and materiel movement between storage areas and further degradation of operations through inefficient workflows and reduced quality of support to DLA Disposition Services customers. The No Action Alternative would not meet the purpose of and need for the Proposed Action, as described in **Section 1.2**.

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3 Affected Environment and Environmental Consequences

3.1 Reasonably Foreseeable Environmental Trends and Planned Actions

Per 40 CFR § 1502.15, the affected environment includes reasonably foreseeable environmental trends and planned actions. The following text is a summary of the environmental trends and planned actions in the vicinity of the project area. A detailed review of the environmental trends and planned actions is provided in **Appendix B**.

Environmental trends in the area include the following:

- The intensity and frequency of wildfires and flooding events in the area are expected to increase because of climate change effects.
- Fort Carson currently manages 30 non-native invasive plant species and new infestations are likely to continue.
- El Paso County is growing at a fast rate and is projected to have a population similar to that of Denver, Colorado, by 2045. The growth is primarily due to the strong military presence in the area and new industries coming into the area.

Planned actions in the area include continuation of Army programs as well as new technology, personnel stationing, and construction actions. The Army is committed to sustaining and preserving the environment at its installations. In line with that commitment, Fort Carson has an environmental management program that employs a full array of BMPs and environmental programs to ensure environmental compliance, stewardship, and sustainability. Fort Carson will continue to implement existing mitigation measures, BMPs, and environmental programs, many of which work to mitigate the effects of managing the cantonment area (built environment) and training at Fort Carson.

The Integrated Training Area Management program is an Army-wide program to provide quality, sustainable training environments to support the Army's military mission and help ensure no net loss of training capability. It integrates mission requirements derived from the Range and Training Land Program with environmental requirements and environmental management practices.

The Fort Carson Department of Public Works conducts infrastructure maintenance and improvement projects, to include installation property, buildings, and facilities; energy, water, and waste programs; oversight of environmental assets to ensure compliance with environmental policies, programs, and legislation; management of installation housing programs and facilities; and planning for construction and improvement of facilities and grounds.

New technologies proposed for Fort Carson include improvements in long range precision weapons; next generation combat vehicles; future vertical lift; network, air, and missile defense; and soldier lethality. Along with these technologies will come changes in training and personnel. There is expected to be an increase of approximately 300 soldiers at Fort Carson between 2021 and 2028. Construction, including barracks and administrative buildings, will be needed to accommodate these changes.

Future installation facilities projects include consolidation of the Space Command units, expansion of U.S. Army Medical Department Activity facilities, expansion of the Colorado Army National Guard training complex on Butts Road, and construction of a consolidated virtual Training Aids, Devices, Simulators, and Simulations facility. Other future projects include residential improvements; relocation of Abrams Elementary School; and gate, road, and sidewalk improvements.

Fort Carson plans improvements to Gate 3 and adjacent roads near the project area. Improvements include realigning Chiles Road, expanding Gate 3, and adding a truck inspection area to facilitate truck access and inspection; and realigning Specker Avenue and Barger Street to improve traffic flow and safety. Gate 3 access would be via Specker Avenue instead of Chiles Avenue.

3.2 Initial Evaluation of Environmental Resource Areas

All environmental resource areas were initially evaluated for potential consequences from the Proposed Action. The initial evaluation determined that some environmental resource areas would not be impacted or would have clearly insignificant effects. These environmental resources areas are not analyzed in detail in this EA and are described as follows:

- ***Aesthetics and Visual Resources.*** The Proposed Action would not adversely affect the aesthetics or visual appeal of Fort Carson or the surrounding area. The new Disposition Services Complex would be constructed within the Fort Carson Logistics District, which is an industrial area (Fort Carson 2015a). All new structures would be designed to fit the character of the area and adhere to the Fort Carson Installation Design Guide. No visually sensitive locations occur within the viewshed of the project area. Therefore, the Proposed Action would not result in effects on aesthetics and visual resources, and a detailed aesthetics and visual resources analysis is not included in this EA.
- ***Airspace Management.*** The Proposed Action would not include any structures or equipment that would encroach on airfield safety clearances, obstruct air navigation, change flight patterns or operations, modify airspace configurations, or alter airspace management procedures. The project area is not within the clear zones or accident potential zones of Butts Army Airfield, which is over 5 miles from the project area. Therefore, the Proposed Action would not result in effects on airspace management, and a detailed airspace management is not included in this EA.
- ***Geological Resources.*** The Proposed Action would not result in considerable effects on soils and other geological resources. The majority of the project area is previously disturbed and consists of a graded, gravel lot (contractor laydown yard) and an undeveloped area to the north. Ground surfaces within the project area would be temporarily disturbed at shallow depths during demolition, grading, and construction, except for the utility work that would be deeper. The lithology (i.e., the character of a rock formation), stratigraphy (i.e., the layering of sedimentary rocks), and geological structures that control groundwater quality, distribution of aquifers and confining beds, and groundwater availability would not be affected. Construction could cause a temporary increase in erosion and sedimentation rates; however, appropriate BMPs would be implemented to minimize or avoid potential effects. See **Section 3.6** for further information on erosion control and stormwater management. The project area has a low to moderate probability of earthquakes and a low probability of karst subsistence hazards (CGS 2012, USGS 2014). Design of the new Disposition Services Complex would comply with applicable engineering standards to avoid adverse effects from geological

hazards and potential effects on geological resources. Because only negligible effects on geological resources are expected from the Proposed Action, a detailed analysis of geological resources is not included in this EA.

- **Health and Safety.** The Proposed Action would not result in appreciable effects on human health and safety. To minimize the probability of injury, Fort Carson, DLA, and construction personnel would follow applicable federal and state regulatory requirements during construction and operation of the new Disposition Services Complex. Military personnel and contractors would be required to wear appropriate personal protective equipment including ear protection, safety-toed shoes, hard hats, and safety glasses when required. Construction contractors would adhere to federal and state regulations during the handling of hazardous materials and would follow applicable procedures if working in contaminated areas (see **Section 3.6** for further information).

The eastern portion of the project area (i.e., east of the proposed GPW and administration annex) is within the 1,310-foot explosion exclusion zone associated with the railyard munitions loading area; however, munitions are rarely present and not an active concern (DLA 2019). When munitions are present, the explosion exclusion zone is activated, and personnel may be temporarily restricted from the area depending on the quantity and type of munitions being handled or stored. Fort Carson would coordinate activation of the explosion exclusion zone with construction or DLA personnel, as required, to maintain health and safety standards. The Proposed Action would result in long-term, negligible, beneficial effects on human health and safety because construction of a new, modern Disposition Services Complex would provide safe and efficient buildings, which would reduce the risks of slips, trips, and falls. Human health and safety would not be adversely impacted by the Proposed Action; therefore, a detailed health and safety analysis is not included in this EA.

- **Land Use.** The Proposed Action would be sited within the Fort Carson Logistics District, which is designated for industrial uses, and would have no adverse effects on land use. Operation of the new Disposition Services Complex would not introduce new land uses to the area, as the project area is currently used as a contractor laydown yard. The Proposed Action would be consistent with the DLA Disposition Services Colorado Springs Area Development Plan (DLA 2019) and the Fort Carson Real Property Master Plan Digest (Fort Carson 2008). Therefore, no effects on land use would occur from the Proposed Action and a detailed analysis of land use is not included in this EA.
- **Socioeconomics and Environmental Justice.** The Proposed Action is not expected to result in adverse effects on the local or regional socioeconomic environment or on populations of environmental justice concern. Proposed construction would result in short-term, negligible, beneficial effects on the local economy through increased employment and the purchase of goods and services. Operation of the new Disposition Services Complex would not result in an increase of DLA personnel at Fort Carson; therefore, the Proposed Action would not affect population or the demand for housing or public services. Because the Proposed Action would occur entirely within Fort Carson, no disproportionate adverse environmental or health effects on low-income or minority populations or children would occur. Therefore, a detailed socioeconomic and environmental justice analysis is not included in this EA.

The initial evaluation for potential consequences from the Proposed Action also determined that there is the potential for significant effects on other environmental resource areas; therefore, these environmental resource areas are analyzed in detail in this EA. The detailed analysis in this EA determined that no significant effects from the Proposed Action and No Action Alternative would occur. The following sections describe the non-significant effects that would result from the Proposed Action and No Action Alternative.

3.3 Air Quality

3.3.1 Affected Environment

Under the Clean Air Act, the six pollutants defining air quality, called “criteria pollutants,” are carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, ozone, suspended particulate matter (measured less than or equal to 10 microns in diameter and less than or equal to 2.5 microns in diameter), and lead. The United States Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) (40 CFR § 50) for the criteria pollutants to protect against adverse health and welfare effects. Areas that are and have historically been in compliance with the NAAQS or have not been evaluated for NAAQS compliance are designated as attainment areas. Areas that violate a federal air quality standard are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas and are required to adhere to maintenance plans to ensure continued attainment. The project area is in a portion of El Paso County, Colorado, that the USEPA has designated as maintenance for CO and unclassified/attainment for all other criteria pollutants (USEPA 2020a).

Fort Carson is a major stationary source under Title V and Prevention of Significant Deterioration (PSD) regulations. The installation has a Title V operating permit (95OPEP110) and other preconstruction air permits. Fort Carson is a PSD major source (i.e., has the potential to emit more than 250 tons per year [tpy]) of nitrogen oxides (Fort Carson 2018). No permitted air emission sources are within the project area.

The U.S. Global Change Research Program has examined climate trends in the southwest United States, including Colorado. Average temperatures have increased by 1 to 2 degrees Fahrenheit at Colorado Springs over the past century. Additionally, droughts have become more frequent, intense, and lengthy; and flood and wildfire events have become more common and severe. These climate trends are expected to continue for the foreseeable future (USGCRP 2018).

Reasonably foreseeable environmental trends and planned actions (see **Appendix B**), such as local population growth and increased wildfires, would produce new air emissions. Air emissions associated with local population growth and wildfires are unlikely to significantly impact air quality in the region because newer and less emissive sources would replace older and more emissive sources over time and the wildfires would occur intermittently.

3.3.2 Environmental Consequences

Proposed Action

Construction of a new Disposition Services Complex at DLA Disposition Services Colorado Springs would result in a short-term, minor, adverse effect on air quality. Construction activities such as site grading, trenching, building construction, architectural coatings, and paving would produce

emissions of criteria pollutants and greenhouse gases (GHGs) from operation of heavy equipment, workers commuting to and from the project area in their personal vehicles, heavy duty diesel vehicles hauling materials and debris to and from the project area, and ground disturbance. However, such emissions would be temporary in nature and produced only when such activities are occurring. All construction would occur between October 2025 and September 2027.

The air pollutant of greatest concern is particulate matter, such as fugitive dust. The quantity of uncontrolled fugitive dust emissions from a site is proportional to the area of land being worked and the level of activity. Fugitive dust air emissions would be greatest during the initial site grading and excavation and would vary day to day depending on the work phase, level of activity, and prevailing weather conditions. Particulate matter emissions also would be produced from the combustion of fuels in vehicles and equipment needed for construction.

Construction activities would incorporate dust suppression BMPs and environmental control measures in Fort Carson's Fugitive Dust Control Plan or as deemed appropriate such as application of water, soil stabilizers, or vegetation; use of wind break enclosures; use of covers on soil stockpiles and dump truck loads; use of silt fences; and suspension of earth-movement activities during high-wind conditions (gusts exceeding 25 miles per hour) to minimize fugitive particulate matter air emissions. Additionally, work vehicles are assumed to be well maintained and to use diesel particulate filters to reduce particulate matter air emissions. All non-road diesel equipment would comply with the federal Clean Air Nonroad Diesel Rule, which regulates emissions from nonroad diesel engines and sulfur content in nonroad diesel fuel.

Long-term, minor, adverse effects on air quality would occur from heating the proposed GPW and MHE building. Air emissions associated with heating would begin after the buildings become operational (i.e., October 2027) and continue each year thereafter. These air emissions would be produced from a new natural gas-fired boiler/furnace and would be similar to those already produced from heating other buildings on Fort Carson.

Operational air emissions from all other day-to-day mission activities at Fort Carson would not change. There would be no change in the number of personal vehicles or trucks accessing the installation or the types and hours of equipment used by personnel; therefore, air emissions from these mission activities would remain consistent with those currently produced.

The U.S. Air Force's Air Conformity Applicability Model was used to estimate annual air emissions from construction and operation (building heating). **Table 3-1** summarizes these air emissions, and **Appendix C** contains the Air Conformity Applicability Model detail report.

Table 3-1. Estimated Air Emissions from the Proposed Action

Calendar Year	NO _x tpy	VOCs tpy	CO tpy	SO _x tpy	PM ₁₀ tpy	PM _{2.5} tpy	GHGs tpy
2025	1.065	0.196	1.260	0.004	16.694	0.041	354.6
2026	2.725	0.742	3.835	0.010	17.735	0.097	945.1
2027	1.748	1.012	2.401	0.005	0.073	0.073	558.3
2028 and Later	0.262	0.014	0.220	0.002	0.020	0.020	315.5

Notes: Lead emissions are not included because they are negligible for the types of emission sources under this Proposed Action.

NO_x and VOC emissions are used to represent ozone generation because they are precursors of ozone.

Key: NO_x = nitrogen oxides; VOCs = volatile organic compounds; SO_x = sulfur oxides; PM₁₀ = particulate matter measured less than or equal to 10 microns in diameter; PM_{2.5} = particulate matter measured less than or equal to 2.5 microns in diameter; GHGs = greenhouse gases, expressed as carbon dioxide equivalent.

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas when the total direct and indirect emissions of nonattainment and maintenance pollutants (or their precursors) exceed specified thresholds. The emissions thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tpy) vary by pollutant and also depend on the severity of the nonattainment status for the area in question. As noted in **Section 3.3.1**, the portion of El Paso County where the Proposed Action would occur is designated by USEPA as maintenance for CO; therefore, the General Conformity Rule applies to emissions of CO from the Proposed Action. The *de minimis* level threshold for new emissions to trigger a conformity analysis is 100 tpy of CO. As demonstrated in **Table 3-1**, the annual emissions of CO would be less than the 100 tpy *de minimis* level threshold; therefore, a General Conformity Rule conformity analysis is not applicable. **Appendix C** contains the Record of Conformity Analysis.

Annual air emissions from the new natural gas-fired boiler/furnace would be well below the PSD major modification threshold for nitrogen oxide, which is 40 tpy (40 CFR § 51.166(b)(23)); therefore, no new PSD permitting requirements would be triggered. The heat capacity of the boiler/furnace is likely to be low enough that it would not need to be added to the installation's Title V operating permit.

The Proposed Action would emit approximately 1,779 tons of carbon dioxide equivalent from construction and approximately 316 tons of carbon dioxide equivalent annually from building heating (i.e., 2028 and thereafter). By comparison, 1,779 tons of carbon dioxide equivalent is approximately the GHG footprint of 349 passenger vehicles driven for 1 year or 186 homes' energy use for 1 year and 316 tons of carbon dioxide equivalent is approximately the GHG footprint of 62 passenger vehicles driven for 1 year or 33 homes' energy use for 1 year (USEPA 2020b). As such, the annual emissions of GHGs from the Proposed Action would not meaningfully contribute to the potential effects of global climate change.

The foreseeable climate trends in the southwest United States (i.e., increased temperatures, droughts, wildfires, and floods) are not expected to impact the Proposed Action. Increased average temperatures and potential for drought would not affect DLA's ability to implement the Proposed Action. The project area is not within a floodplain (USACE 2012) or near forested areas, so the new complex would be unlikely to be damaged should the frequency or severity of these events increase.

No Action Alternative

Air quality conditions would remain the same as described in **Section 3.3.1**, and no effects on air quality would occur. Air emissions from construction and operation of the new Disposition Services Complex would not be produced.

3.4 Biological Resources

3.4.1 Affected Environment

Vegetation. Fort Carson is in the Central Shortgrass Prairie ecoregion, a landscape that includes plains and table lands generally dominated by native shortgrass species such as buffalograss (*Bouteloua dactyloides*), western wheatgrass (*Pascopyrum smithii*), and blue grama (*Bouteloua gracilis*). The installation has a long history of development and military activity that has disturbed much of the native vegetation. The project area has approximately 5.4 acres of vegetation comprised of small shrubs and grasses, with no trees (DLA 2020).

Executive Order (EO) 13112 requires federal agencies to prevent the introduction of invasive species, provide for their control, and minimize their economic, ecological, and human health impacts. Colorado Department of Agriculture (CDA) lists 79 noxious weed species based on eradication concerns and categorized most invasive to least; “A,” “B” and “C.” Additionally, CDA has a “Watch” list that includes 19 plant species (CDA 2020). State-listed weed species documented on the installation include one “A” list species eradicated 10 years ago, one “A” list species in the process of eradication, 24 “B” list species, and eight “C” list species. There are two CDA “Watch” list species found on Fort Carson, and the installation also evaluates and manages non-native species found exhibiting invasive behaviors that may not be on CDA lists. The Fort Carson Directorate of Public Works Environmental Division manages noxious weed species via an integrated management approach (Fort Carson 2020, Fort Carson 2021a).

Climate change could increase the non-native invasive species on Fort Carson and decrease the effectiveness of the current treatments used on invasive species. Additionally, the number of planned construction projects at Fort Carson (see **Appendix B**), several of which are near the project area, could enable infestations of invasive species if not managed appropriately.

Wildlife. Over 400 native and exotic vertebrate species have been documented on Fort Carson. This includes 73 mammals, 285 birds, 17 reptiles, nine amphibians, and 24 fish. Small mammals comprise about a third of the mammals, with common species including the red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), and porcupine (*Erethizon dorsatum*), as well as various species of mice, rats, prairie dogs, squirrels, and rabbits. Common large mammals include white-tailed deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), and mountain lion (*Puma concolor*). Common birds include rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), and English sparrow (*Passer domesticus*) (Fort Carson 2020).

Amphibian species include the plains leopard frog (*Lithobates blairi*). The painted turtle (*Chrysemys picta*), Western rattlesnake (*Crotalus viridis viridis*) and coachwhip (*Masticophis flagellum*) are common reptiles. Of the 24 fish species on Fort Carson, 15 are native (Fort Carson 2020). The project area does not have any established aquatic habitat that would support amphibian or fish species; however, it is possible there may be some reptile and small to medium-sized mammals that may move across or inhabit the areas around the project area.

The planned construction projects at Fort Carson (see **Appendix B**), several of which are near the project area, would disturb wildlife during construction and permanently displace wildlife following construction. However, the quality of habitat in the vicinity of the project area is poor and wildlife would likely find comparable or better habitat close by.

Protected Species. This subsection addresses federal- and state-listed species, critical habitat, Army Species at Risk (SAR), Birds of Conservation Concern, Colorado Natural Heritage Program (CNHP), and Colorado Parks and Wildlife (CPW) species of special concern.

There are six USFWS federal-listed vertebrate species that have the potential to occur within the project area: least tern (*Sterna antillarum*), Mexican spotted owl (*Strix occidentalis lucida*), piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), greenback cutthroat trout (*Oncorhynchus clarkii stomias*), and pallid sturgeon (*Scaphirhynchus albus*) (USFWS 2020a). Of these six species, only four species have suitable habitat in the project area because there is no surface water within the project area (see **Table 3-2**). The Mexican spotted owl is the only federal-listed vertebrate with the potential to occur in the project area that is known to occur on Fort Carson.

Table 3-2. Federal- and State-Listed Species with the Potential to Occur within Project Area

Common Name	Scientific Name	Status	
		USFWS	CPW
Birds			
burrowing owl ¹	<i>Speotyto cunicularia</i>	-	T
least tern	<i>Sterna antillarum</i>	E	E
Mexican spotted owl ¹	<i>Strix occidentalis</i>	T	T
piping plover	<i>Charadrius melodus</i>	T	T
whooping crane	<i>Grus americana</i>	E	E
Plants			
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	T	T
western prairie fringed orchid	<i>Platanthera praeclara</i>	T	T

Note: ¹Species has been observed at Fort Carson.

Sources: Fort Carson 2020, USFWS 2020a, CPW 2020, CDOT 2018

Key: E = Endangered; T = Threatened

There have been no documented Mexican spotted owl nesting events on the installation, and it is a rare winter resident in the mountains located in the south-central portions of Fort Carson. There are no critical habitat, federal-proposed, or federal-candidate species known to occur on Fort Carson (Fort Carson 2020, USFWS 2020a).

The only federal-listed plant species with the potential to occur on Fort Carson are Ute ladies'-tresses (*Spiranthes diluvialis*) and western prairie fringe orchid (*Platanthera praeclara*). Neither species has been observed on Fort Carson, and no mapped critical habitat for these plant species exists within the project area (USFWS 2020a, Fort Carson 2020).

Fort Carson has documented three species under USFWS review for potential federal listing: little brown bat (*Myotis lucifugus*), monarch butterfly (*Danaus plexippus*), and tri-colored bat (*Perimyotis subflavus*). There are also two species under USFWS review that have not been documented but have the potential to occur on the installation: plains spotted skunk (*Spilogale putorius interrupta*) and western bumble bee (*Bombus occidentalis*).

Table 3-2 includes CPW state-listed species known to occur on Fort Carson and with the potential to occur within the project area: burrowing owl (*Speotyto cunicularia*) and Mexican spotted owl. The burrowing owl, also protected under the Migratory Bird Treaty Act (MBTA), occupies only a small percentage of available habitat on Fort Carson. This species is primarily restricted to prairie dog colonies during nesting season; however, it may use other natural burrows occasionally. Fort Carson coordinates with USFWS and CPW regarding the management of threatened and endangered species known or anticipated to occur on Fort Carson through the maintenance and implementation of the installation's *Integrated Natural Resources Management Plan* (Fort Carson 2020, CPW 2020).

The Army SAR objective is to conserve species prior to federal or state listing, as a listing of these species would impact Army training. Army SAR species observed on Fort Carson include four vertebrates: Colorado checkered whiptail (*Aspidoscelis neotesselata*), Mountain plover (*Charadrius montanus*), Pinyon jay (*Gymnorhinus cyanocephalus*) and tri-colored bat. Additionally, there are five plants on the Army SAR list: dwarf milkweed (*Asclepias uncialis* ssp. *Unicalis*), golden blazingstar (*Mentzelia chrysantha*), roundleaf four o'clock (*Mirabilis rotundifolia*), Pueblo goldenweed (*Oenopsis puebloensis*), and rayless goldenweed (*Oenopsis foliosa* var. *monocephala*) (Fort Carson 2020). The project area does not have habitat to support any Army SAR listed species and it is unlikely any of these species are present.

Fort Carson has documented 61 species of concern on the installation. These species include 44 birds, 13 mammals, one fish, two amphibians, and one reptile. In addition to the 61 species of concern, 16 CNHP-tracked vertebrate species have been observed on Fort Carson (Fort Carson 2020). A detailed list of the species of concern on Fort Carson, which includes Birds of Conservation Concern, CPW state special concern, and CNHP species of concern, can be found within Fort Carson's *Integrated Natural Resources Management Plan*.

Multiple migratory bird species could occur on and around Fort Carson. Migratory bird species, defined as any birds that live, reproduce, or migrate within or across international borders during their annual life cycles, are protected under the MBTA (16 USC §§ 703–712). Additionally, bald and golden eagles have been observed on Fort Carson. Although bald and golden eagles have been removed from the Endangered Species Act list, both species receive federal protection under the MBTA and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d) (Fort Carson 2020).

Wetlands. Wetlands are areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (40 CFR § 230.3[t]). Wetlands are subject to regulatory authority under Section 404 of the federal Clean Water Act (CWA) (33 USC §§ 1251–1387) and EO 11990, *Protection of Wetlands*. Under Section 404 of the CWA, wetlands and other waters of the United States are regulated by the United States Army Corps of Engineers, and the discharge of dredged or fill materials into such features requires a permit.

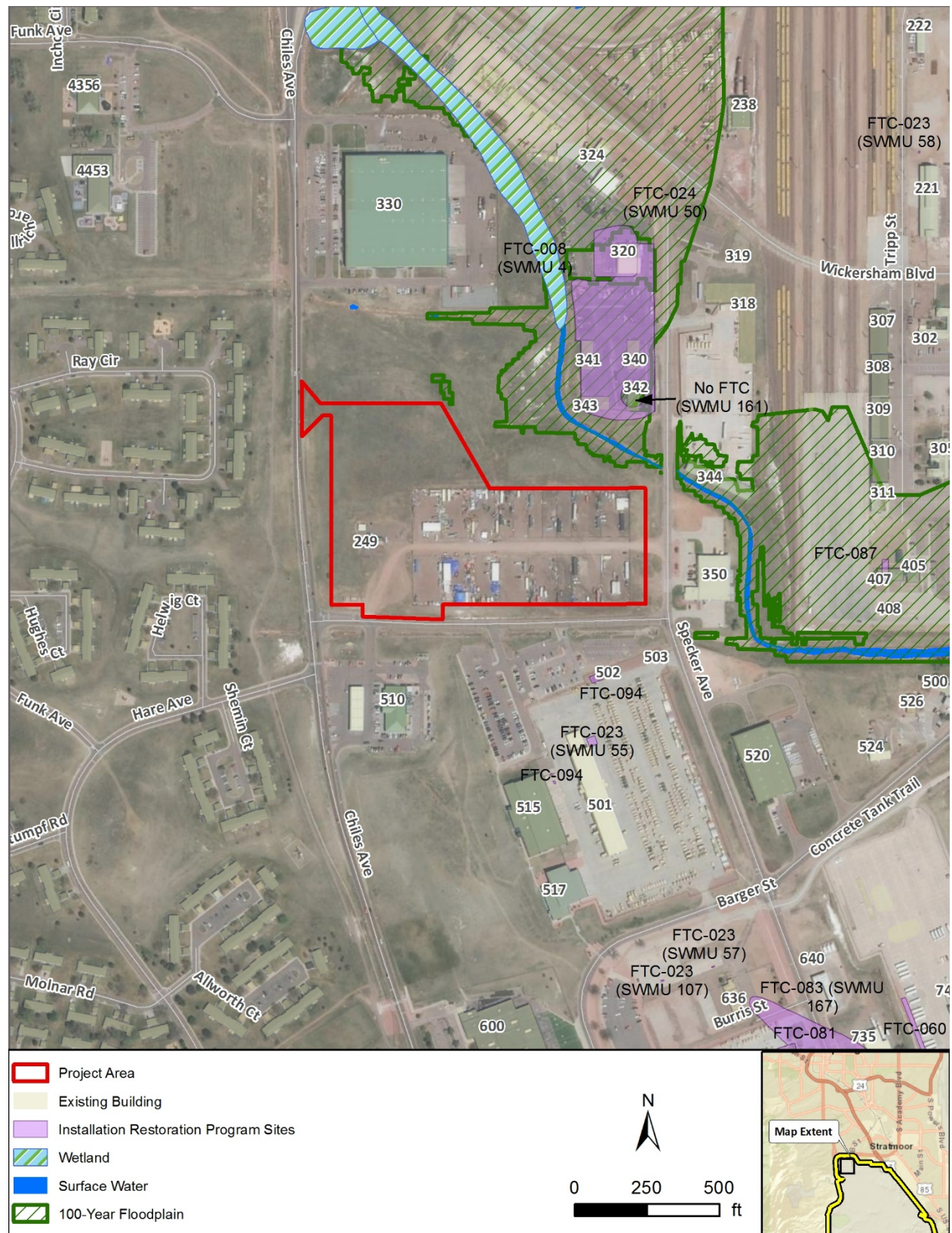
Wetland areas scattered throughout the more industrialized areas of the installation are typically found in natural or stormwater runoff drainages. Fort Carson wetlands are generally characterized as linear or small and isolated. Fort Carson activities in the vicinity of wetlands are designed to either avoid the areas or minimize effects to the greatest extent feasible (Fort Carson 2020). No wetlands are present within the project area; however, there is a wetland approximately 500 feet north of the project area (see **Figure 3-1**). The 2020 National Wetland Inventory does not indicate wetlands within the project area (USFWS 2020b).

3.4.2 Environmental Consequences

Proposed Action

Vegetation. Short- and long-term, negligible, adverse effects on vegetation would occur under the Proposed Action. Ground disturbance would occur on approximately 12.8 acres, including permanent removal of approximately 5.4 acres of vegetation. The permanently lost vegetation would include grasses and shrubs, but no trees. With the historic long-term disturbance in this area, it is not expected that any native grasses or shrubs would be lost, and construction contractors would work closely with the Fort Carson Directorate of Public Works Environmental Department to ensure no invasive weeds would be introduced during construction and revegetation would be conducted in compliance with installation recommendations. There are no expected vegetation effects from operation of the new Disposition Services Complex.

Figure 3-1. Biological Resources, Hazardous Materials and Wastes, and Water Resources Proximal to the Project Area



Wildlife. Short- and long-term, negligible, adverse effects and long-term, minor, beneficial effects on wildlife resources would occur under the Proposed Action. Short-term, adverse effects would result from noise generated by demolition and construction activities. This noise would affect wildlife resources within and around the project area, during which time wildlife would likely leave the construction area and relocate to nearby areas. However, these effects would be negligible because noise from demolition and construction would be temporary, and the project area currently experiences noise levels common of industrial areas to which wildlife are accustomed.

Long-term, adverse effects would result from the permanent removal of vegetation within the project area. Large open spaces that are unoccupied could provide summer and winter refuge for horned owls and other birds. The project area does not likely contain suitable subterranean habitat for prairie dogs due to existing development and previous disturbances. Adverse effects would be negligible because a limited amount of potentially suitable habitat would be permanently removed, and there are similar habitats nearby available for wildlife relocation.

Operation of the new complex would have a long-term, negligible, adverse effects on wildlife populations in the vicinity of the Proposed Action. Facility operations would slightly increase the level of human and industrial activities in this area, affecting nearby wildlife species. However, given the ongoing industrial activities within the project area and the existence of comparable or better quality wildlife habitats on Fort Carson, effects would be negligible.

Long-term, minor, beneficial effects would result from the proper storage of metallic materiel. As stated in **Section 1.1**, metal contamination has been detected at the southern end of the current complex. The proper storage of metallic materials would reduce the concentration of dissolved metals present in stormwater discharges, which would result in improved aquatic habitat quality and overall health of aquatic, semi-aquatic, and terrestrial wildlife that have the potential to occur in nearby areas.

Protected Species. No effects on protected species are expected to occur under the Proposed Action. Only the Mexican spotted and burrowing owls have been documented on Fort Carson and these species are unlikely to occur within the project area based on habitat preferences and usage. The Mexican spotted owl has never been documented nesting on Fort Carson and is a rare winter resident in the central-southern portion of the installation, which is outside the project area. Burrowing owls occupy a very small percentage of available habitat on the installation. However, a survey for protected species should be conducted prior to any ground-disturbing activities.

It is possible that MBTA-protected birds could use the project area for nesting between April and September. Therefore, demolition and vegetation removal should occur during winter months; otherwise, a survey of the project area no more than 2 weeks prior to construction would take place during the nesting season to avoid the unintentional take of migratory birds. Additionally, a survey for monitored species (e.g., Army SAR) could be conducted prior to any ground-disturbing activities.

Wetlands. Short-term, negligible, adverse effects and long-term, minor, beneficial effects on wetlands would occur under the Proposed Action. The wetlands near the project area would not be altered; however, vegetation removal and construction could result in increased rates of erosion and stormwater runoff that could affect the water quality in wetlands. These effects would be limited and minimized by BMPs such as erosion and sediment controls and effective stormwater management during construction, as well as the construction of a detention pond on the east edge of the project area to address stormwater runoff from the increased impervious areas. Long-term, beneficial

effects on wetlands would result from the proper storage of metallic material under the Proposed Action.

No Action Alternative

Under the No Action Alternative, biological resources within the project area would remain the same as baseline conditions described in **Section 3.4.1**. Metallic material at the current complex would continue to be exposed to the elements in improper storage, and metal contamination would continue to be present in downstream flows, which could continue to degrade wetland and aquatic habitat quality on Fort Carson. Additionally, the increased heavy traffic from the planned reconfiguration of Gate 3 and road projects may pose increased risks to wildlife.

3.5 Cultural Resources

3.5.1 Affected Environment

Cultural resources are historic sites, buildings, structures, objects, or districts considered important to a culture, subculture, or community for scientific, traditional, religious, or other purposes. They include archaeological resources, historic architectural or engineering resources, and traditional resources.

Several federal laws and regulations govern protection of cultural resources including the National Historic Preservation Act of 1966 (NHPA), the Archeological and Historic Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resources Protection Act (1979), and the Native American Graves Protection and Repatriation Act (1990). In addition, Fort Carson is required to comply with Army regulations and instructions including the Fort Carson Integrated Cultural Resources Management Plan (ICRMP); Chapter 6 of AR 200-1, Environmental Protection and Enhancement; and EO 13007, Indian Sacred Sites.

The NHPA defines historic properties as buildings, structures, sites, districts, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP). Historic properties are generally 50 years of age or older, historically significant, and retain sufficient integrity to convey their historic significance. Archaeological resources comprise areas where human activity has measurably altered the earth or where deposits of physical remains are found (e.g., projectile points and bottles) but standing structures do not remain. Architectural resources include standing buildings, structures (such as bridges and dams), landscapes, and districts composed of one or more of those resource types. Generally, architectural resources must be more than 50 years old to warrant consideration for the NRHP. Resources constructed more recently may meet the criteria for designation if they are of exceptional importance or have the potential to gain significance in the future. Resources of traditional, religious, or cultural significance can include archaeological resources, sacred sites, structures, districts, prominent topographic features, habitat, plants, animals, or minerals considered essential for the preservation of traditional culture (NPS 1997).

Three Programmatic Agreements (PAs) have been executed by Fort Carson that streamline the Section 106 consultation process on Fort Carson-managed lands by establishing certain exemptions for routine undertakings. The *Programmatic Agreement among the U.S. Army Garrison Fort Carson, the Colorado State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding Construction, Maintenance, and Operations Activities for Areas of Fort Carson, Colorado* (Fort Carson Built Environment PA) applies to the Fort Carson cantonment area, which includes the

project area (Fort Carson 2014a). This PA categorizes new construction, maintenance, repair, demolition, and replacement operations that are not within the boundary of a historic property as exempted undertakings that do not require further consultation under Section 106. An annual report is submitted to the SHPO, tribes, and concurring parties each year that summarizes all exempted and non-exempted undertakings under the PA.

Two areas of potential effects (APEs) have been identified: a direct, physical APE and an indirect, visual APE. The physical APE includes a 50-meter buffer around the project area, while the visual APE includes a 3-mile radius around the project area, taking into account topography and vegetation.

To identify historic properties and other cultural resources within the APEs, the Fort Carson Cultural Resources Manager reviewed data maintained by the Fort Carson Cultural Resources Program, as well as the data in the online database maintained by the Office of Archaeology and Historic Preservation, History Colorado. No historic properties or other cultural resources have been documented within the physical APE. There are 300 historic properties in the visual APE. These historic properties are buildings, structures, and landscapes associated with Capehart-era family housing located in the following neighborhoods: Arapaho Village, Cherokee Village West, Cheyenne Village, and Choctaw Village. In addition to these historic properties, a total of 463 cultural resources are located within the visual APE, and include 13 archaeological sites, 447 historic buildings or structures, and 3 historic objects. All have been determined ineligible for inclusion in the NRHP, and are therefore not considered historic properties.

There are several planned construction projects at Fort Carson, including some in the vicinity of the project area (see **Appendix B**). The construction projects in the vicinity of the project area are covered under the Fort Carson Built Environment PA.

3.5.2 Environmental Consequences

Proposed Action

The Proposed Action would not adversely affect historic properties under Section 106 of the NHPA. Therefore, the Proposed Action is an exempted undertaking in accordance with the PA (Appendix C, 1.A1), and no additional consultation under Section 106 is required. The Proposed Action would have no significant impact on cultural resources under NEPA because there are no cultural resources within the physical APE and the viewshed of resources within the visual APE does not retain historic integrity. Any post-review discoveries of archaeological resources or paleontological materials or inadvertent discovery of cultural remains during ground-disturbing activities would follow Standard Operating Procedure No. 4 in the Fort Carson ICRMP (Fort Carson 2017a).

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented. Therefore, no effects on cultural resources would occur under the No Action Alternative.

3.6 Hazardous Materials and Wastes

3.6.1 Affected Environment

Hazardous Materials and Wastes. The management of hazardous materials and wastes at Fort Carson is conducted in accordance with the installation's Hazardous Materials Management Program External Standard Operation Procedures and Hazardous Waste Management Plan (HWMP). The Fort Carson Pollution Prevention Plan identifies goals and initiatives for reducing the use and generation of hazardous materials and wastes throughout the installation. These documents establish procedures and policies and assign responsibilities associated with generation, handling, use, management, transportation, and disposal of hazardous materials and wastes at Fort Carson (Fort Carson 2013, Fort Carson 2016a, Fort Carson 2015b).

There are no hazardous materials stored or hazardous wastes generated by current operations at the project area. In addition, no underground or aboveground storage tanks are within the project area (Fort Carson 2014b).

Planned actions on the installation would increase use and generation of hazardous materials and wastes. Planned actions include construction projects, new training, and infrastructure maintenance and improvement projects (see **Appendix B**). All actions would be conducted in accordance with the installation's Hazardous Materials Management Program, HWMP, and Pollution Prevention Plan. Continued implementation of these plans would ensure planned actions would be conducted in accordance with federal, state, and local regulations and the installation remains environmentally compliant.

A Site Characterization Study of the project area was conducted in 2021 to assess the environmental condition of the project area with respect to the potential presence of contaminants in the soil and groundwater. The study included the collection and analysis of three soil gas samples and 19 soil samples from within the project area. The soil gas samples were analyzed for volatile organic compounds, whereas the soil samples were analyzed for metals, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons, volatile organic compounds, semi-volatile organic compounds, and pesticides (DLA 2021c).

Multiple volatile organic compounds were detected in the soil gas samples, but none exceeded the USEPA Vapor Intrusion Screening Level Targeted Indoor Air Concentrations or carcinogenic risk and hazard quotient human health risk limits (DLA 2021c).

The soil samples contained varying concentrations of metals, but did not contain PCBs, polycyclic aromatic hydrocarbons, volatile organic compounds, semi-volatile organic compounds, or pesticides. One metal (arsenic) was detected above its USEPA Industrial Soil Composite Worker Regional Screening Level in shallow and deep soil samples. However, the arsenic concentrations were below the background screening values for urban use in Colorado and within the U.S. Geological Survey data for background arsenic concentrations. Therefore, it is likely the arsenic exceedances are representative of the natural arsenic concentrations in the region rather than local contamination. The Site Characterization Study determined that the soils within the project area are not contaminated and the project area can be safely developed (DLA 2021c).

Toxic Substances. The HWMP also provides guidance and requirements for managing toxic substances such as asbestos-containing material (ACM), lead-based paint (LBP), and PCBs (Fort Carson 2016a). Fort Carson has sampled and replaced all PCB-containing transformers that provide power to buildings on the installation (Fort Carson 2017b). Existing structures within the project area are trailers that are not likely to contain ACM, LBP, or PCBs. The water lines within the project area are either ductile iron or asbestos cement (DLA 2021c).

Pesticides. Pesticide use on the installation is conducted in accordance with the Fort Carson Integrated Pest Management Plan and HWMP. All applicators of pesticides on the installation must meet Department of Defense and state certification requirements (Fort Carson 2020).

Environmental Restoration Program (ERP). There are no (ERP) concerns within the project area. No soil contamination, pollution plumes, or monitoring wells occur within the project area (see **Figure 3-1**) (DLA 2020). **Table 3-3** presents details regarding the four Solid Waste Management Units (SWMUs) that occur within the vicinity of the project area.

Table 3-3. SWMUs in the Vicinity of the Project Area

SWMU No.	Site Title	Site Status	Distance from Project Area
4	Landfill 4	Remedy in place – cover made up of existing asphalt parking area, existing buildings on concrete slab, and small sections of vegetated soil cover.	~250 feet north of the northeastern portion of the project area
50	Defense Reutilization and Marketing Office Inactive Hazardous Waste Storage Area	No Further Action	~700 feet north of the northeastern portion of the project area
55	Building 523 Used/Waste Oil Tanks	No Further Action	~460 feet south of the southeastern portion of the project area
161	Building 342 Hazardous Waste Accumulation Area	No Further Action	~250 feet north of the northeastern portion of the project area

Sources: Fort Carson 2010, Fort Carson 2016b

Radon. Radon, an odorless, colorless, radioactive gas that develops from the natural breakdown of uranium in soil and rock, can migrate through permeable rocks and soil and seep into buildings or structures, thereby posing an atmospheric human health risk (NRC 1999). El Paso County, Colorado, is in radon zone 1 with predicted average indoor radon screening levels greater than 4 picocuries per liter (pCi/L); therefore, indoor radon levels in buildings within the project area could exceed the national standard of concern for indoor radon of 4 pCi/L (USEPA 2020c). The installation has no information on prior indoor radon testing within the project area; however, there are no permanent structures within the project area.

3.6.2 Environmental Consequences

Proposed Action

Construction and operation of a new Disposition Services Complex is not anticipated to change or result in effects on pesticides or ERP sites. No contamination or plumes are associated with the project area. Additionally, based on the status of SWMUs in the vicinity of the project area, no ERP effects would occur. No effects from pesticides are expected because application, storage, and

mixing of pesticides would follow procedures established in the Fort Carson Integrated Pest Management Plan to minimize environmental consequences. Therefore, pesticides and ERP sites are not discussed further.

Hazardous Materials and Wastes. Short-term, negligible, adverse effects on hazardous materials and waste management would occur from construction and operation of the Disposition Services Complex. Hazardous materials that could be used during construction and maintenance include paints, welding gases, and solvents. Additionally, hydraulic fluids and petroleum products, such as diesel and gasoline, would be used in vehicle and equipment supporting construction. Parking and paved areas within the complex would be paved with asphalt, which is a byproduct of the petroleum refining process. Hazardous materials could also be used for minor equipment servicing and repair activities. Contractors would be responsible for the appropriate disposal of hazardous wastes and used petroleum products in accordance with federal, local, and state laws and regulations.

All hazardous materials, petroleum products, and hazardous wastes used or generated during construction would be contained, stored, and managed appropriately (e.g., secondary containment, inspections, spill kits) in accordance with the installation's Hazardous Materials Program, HWMP, and Pollution Prevention Plan as well as applicable regulations to minimize the potential for releases. All construction equipment would be maintained according to the manufacturer's specifications and drip mats would be placed under parked equipment as needed. Prior to each day's use, equipment would be inspected for hydraulic and fuel leaks. In the event of a leak or spill, all procedures outlined in the installation's Spill Prevention, Control, and Countermeasure Plan would be followed. The project area does not contain hazardous materials, hazardous wastes, or petroleum products; therefore, they would not need to be removed prior to or during construction of the new Disposition Services Complex.

Should unknown contamination be discovered or unearthed during ground-disturbing activities, the construction contractor would immediately stop work, contact appropriate installation personnel, and implement appropriate safety measures. Sampling and analysis would be conducted, as necessary, and commencement of construction would not continue until the concern is investigated and resolved. Any soils determined to be contaminated or hazardous would be managed or disposed of in accordance with applicable federal, state, and local laws and regulations.

No long-term effects from hazardous materials and wastes would result from operation of the new Disposition Services Complex. Operation of the new complex would not require new or increased quantities of hazardous materials or wastes beyond those currently used at the existing complex.

Toxic Substances. Short-term, negligible, adverse effects from asbestos could occur during construction due to potential exposure to asbestos-containing pipes. If the water pipes within the project area are constructed of asbestos cement, special asbestos precautions would be deployed if cutting or tapping of the pipes is required.

Radon. Long-term, negligible, adverse effects from radon are possible. Based on the USEPA rating of radon zone 1 for El Paso County, it is possible that new facilities could have indoor screening levels greater than 4 pCi/L. Although basements and poorly ventilated areas are most commonly affected by radon, any indoor space in contact with the ground (i.e., first-floor of a slab building) is at risk. In accordance with UFC 3-490-04A, Indoor Radon Prevention and Mitigation, DLA would design (passive and active systems, as applicable) and test newly constructed buildings to reduce indoor radon levels to less than 4 pCi/L.

No Action Alternative

Under the No Action Alternative, hazardous materials and wastes within the project area would remain the same as the baseline conditions described in **Section 3.6.1**.

3.7 Infrastructure (Utilities and Transportation)

3.7.1 Affected Environment

Utilities. The project area is serviced by all major utilities including electricity, natural gas, water, and sanitary sewer. Underground electricity lines run along Hare Avenue and throughout the project area. A 6-inch natural gas line runs through the northern portion of the project area. Water and wastewater lines run through the project area. An internet and phone communication node is nearby. There are no stormwater mains or basins within the project area (DLA 2020). Foreseeable population growth and construction at Fort Carson and throughout El Paso County may gradually increase utility demand in the years to come.

General refuse is collected by a disposal contractor from receptacles located throughout the installation. All solid waste that is not recycled is shipped to the Midway Landfill for disposal. Total solid waste generated from the installation is approximately 14,000 to 16,000 tons annually (Fort Carson 2015c). Foreseeable population growth and construction at Fort Carson and El Paso County (see **Appendix B**) may gradually increase the volume of solid waste generated in the years to come.

Transportation. Fort Carson is served by two principal highways: Interstate 25 and Colorado Highway 115. Interstate 25 and Colorado Highway 115 run north-south along the eastern and western boundaries of the installation, respectfully. South Academy Boulevard runs along the northern boundary of the installation and has interchanges with Interstate 25 and Colorado Highway 115.

Access to Fort Carson is controlled through access control points or gates. The nearest gate to the project area for privately owned and commercial vehicles is Gate 3 at the intersection of Chilies Avenue and South Academy Boulevard. The project area is approximately 0.5 mile south of Gate 3 and adjacent to Chilies, Hare, and Specker Avenues (see **Figure 2-1**). The project area does not contain paved roads but is accessible via entrances at Hare and Specker Avenues.

Foreseeable population growth and construction at Fort Carson and throughout El Paso County (see **Appendix B**) may increase traffic on the installation and regional roads in the years to come. Fort Carson plans improvements to Gate 3 and adjacent roads near the project area. Improvements include realigning Chiles Road, expanding Gate 3, and adding a truck inspection area to facilitate truck access and inspection; and realigning Specker Avenue and Barger Street to improve traffic flow and safety. Gate 3 access would be via Specker Avenue instead of Chiles Avenue.

3.7.2 Environmental Consequences

Proposed Action

Utilities. Short-term, negligible, adverse effects on Fort Carson's utility systems (i.e., electricity, natural gas, water, sanitary sewer, and communications) could occur from temporary disruptions of service when connecting the new complex to existing service lines. Electricity would be extended from one of the existing underground lines currently serving the contractor laydown yard. The

existing 6-inch natural gas line along the northern portion of the project area would provide service to the complex. New water and wastewater connections would be made from the existing lines within the project area. Communication lines would be extended through underground duct banks to the new complex. Service disruptions would last for only a few hours on a handful of construction days.

Short-term, minor, adverse effects on solid waste management would occur from the production of solid waste during construction. **Table 3-4** provides estimates for the total volume of solid waste generated during the 2-year span of construction (i.e., October 2025 to September 2027). The estimated total tonnage would be a small fraction of Fort Carson's annual contribution to local landfills. All solid waste generated during construction would be recycled to the extent possible or disposed of by construction personnel at appropriate private, off-installation landfills. Army policy is to recycle at least 50 percent of construction and demolition waste by weight (Fort Carson 2015c).

Table 3-4. Estimated Construction Debris

Project	Total ft ²	Multipliers (pounds/ft ²)	Debris Generated	
			Pounds	Tons
Pavement Demolition	1,780	69.9	124,422	62
Building Construction	81,400	4.34	353,276	177
Pavement Construction	323,000	1	323,000	162
Total			800,698	401

Source: USEPA 2009

Long-term, negligible, adverse effects on utility systems would occur from slightly greater demand for electricity, natural gas, water, sanitary sewer, and communications services following construction. Electricity would be used to power recharging stations for forklifts, computers, public address systems, overhead doorways, appliances in the breakroom, access control systems, lighting, and mechanical equipment. Natural gas would be used to heat building space. Water would be used and wastewater would be generated in bathroom, breakroom, and janitor closet fixtures. New utility demand would be minimized through the incorporation of energy-efficiency standards and sustainable design. Electricity would be partially supplied through solar panels installed on covered parking spaces. The new complex would be designed and constructed to meet the requirements of the LEED silver certification in compliance with DLA energy guidelines. Compliance with the LEED standards as well as applicable UFC and Installation Design Guide requirements would ensure that buildings and infrastructure associated with the Proposed Action would minimize energy demand over the long term. Utility services would remain active to the current complex after it is vacated, resulting in only minimal utility savings.

Long-term, minor, beneficial effects on stormwater management would result from the Proposed Action. Although the Proposed Action would result in an increase of approximately 11.1 acres of impervious surface, which would potentially reduce the amount of space available for stormwater to infiltrate into the ground, the new complex would be designed with appropriate stormwater conveyance and detention systems to minimize stormwater runoff. A stormwater detention pond would be constructed on the eastern portion of the project area and discharge to an existing drainage ditch to the north of the project area. As a project that would disturb more than 5,000 ft², the new complex would comply with Section 438 of the Energy Independence and Security Act, which establishes stormwater design requirements for development and redevelopment projects to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the project area with regard to the temperature, rate, volume, and duration of flow. Additionally, design of the new complex and all stormwater management features would meet the requirements of

applicable statutes and regulations including Sustainable Design and Development; Energy Policy Act of 2005; UFC 3-201-01; UFC 3-210-10; and Fort Carson Development Standards for stormwater. The new complex would be designed and constructed to meet the requirements of the LEED silver certification and include low-impact development measures that would be chosen based on site-specific conditions and limitations.

No long-term effects on solid waste management would occur because operations at the new complex would generate similar volumes of solid waste as operations at the current complex. No solid waste would be produced at the current complex after it is vacated.

Transportation. Short-term, negligible, adverse effects on transportation would occur from a temporary increase in construction-related traffic. This traffic would consist of trucks delivering construction supplies and removing debris, daily worker commutes in their personal vehicles, and heavy equipment deliveries. Construction traffic would occur during the anticipated 2-year window of construction, particularly during peak travel periods in the morning and evening. Such effects would be negligible because the local and regional transportation networks have adequate capacity to support the construction traffic associated with the Proposed Action. Construction traffic would enter the installation through Gate 3 and be limited to the 0.5-mile stretch of Chilies Avenue between the gate and Hare Avenue.

Operation of the new complex would result in long-term, negligible, beneficial effects on transportation. Under the current roadway configuration, the new complex would be slightly closer and more convenient to Gate 3 and Chilies Avenue than the current complex. As such, traffic to the new complex would have a shorter and more direct route to the gate. All traffic would enter the installation on Chilies Avenue at Gate 3 from South Academy Boulevard. However, the planned improvements to Gate 3 would shift traffic accessing the gate onto Specker Avenue instead of Chiles Avenue. This routing would still provide direct access to the new complex but would be slightly farther compared to the current complex.

Identical levels of truck traffic as the current complex are expected at the new complex. No changes to the number of employees at Fort Carson would occur from the Proposed Action; therefore, there would be no net change in commuter traffic volumes entering or leaving the installation. The new complex would include adequate parking for privately-owned vehicles and commercial trucks.

No Action Alternative

Utility and transportation conditions would remain the same as described in **Section 3.7.1**. No effects on infrastructure would occur.

3.8 Noise

3.8.1 Affected Environment

Noise is undesirable sound that interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Sound intensity is quantified using a measure of sound pressure level called decibels (dB). The A-weighted decibel (dBA) is a measurement in which “A-weighting” is applied to the dB to approximate a frequency response expressing the perception of sound by the human ear, and deemphasizes the higher and lower frequencies that the human ear does not perceive well. The range of audible sound levels for humans is considered to be 0 to 140 dBA and

the threshold of audibility is generally within the range of 5 to 25 dBA (USEPA 1981a, USEPA 1981b).

Fort Carson is within unincorporated El Paso County, which permits sound levels at or below 55 dBA within residential and commercial areas and sound levels at or below 80 dBA within industrial or construction areas between 7 a.m. and 7 p.m. Noise levels may exceed permitted levels by 10 dBA for a period of 15 minutes or less per hour during the same timeframe. Sound levels for heavy duty vehicles operating in a public right of way must remain at or below 90 dBA in zones with speed limits greater than 35 miles per hour and at or below 86 dBA in zones with speed limits at or less than 35 miles per hour (El Paso County 2002).

The project area is within the Fort Carson Logistics District, which is an industrial area. Common daytime outdoor noise levels in industrial areas typically vary and intermittent noise peaks occur based on the specific activities being conducted. Noise in the project area is regularly generated by trucks, traffic associated with Chiles and Specker Avenues, warehouse and storage equipment, maintenance shop activities, and contractor activities. Noise levels generated within the Fort Carson Logistics District are estimated to range from 50 dBA (light auto traffic at 100 feet) to 80 dBA (maximum permitted industrial area noise level in El Paso County) (USEPA 1971, El Paso County 2002). The project area is outside of noise zones associated with munitions ranges and Butts Army Airfield, as identified in the *Fort Carson Installation Compatible Use Zone Study* (APHC 2018).

Noise sensitive receptors include specific locations (e.g., schools, housing, and hospitals) or an expansive area (e.g., nature preserves, conservation areas, and historic preservation districts) in which occasional or persistent sensitivity to noise above ambient levels exists. The nearest noise sensitive receptor to the project area is an on-installation housing area on the western side of Chiles Avenue, less than 0.1 mile west of the project area. The closest residence is approximately 250 feet west of the northern portion of the project area. The Aspen Child Development Center and Funk Community Center are 0.19 and 0.25 mile northwest of the project area, respectively. Abrams Elementary School and Mesa School Age Center (a school age child center) are 0.3 mile south of the project area. Residences west and noise sensitive receptors northwest (i.e., Aspen Child Development Center and Funk Community Center) of the project area are likely to experience noise levels associated with industrial activities and may encounter noise levels up to 76 dBA from heavy duty vehicle traffic associated with the Fort Carson Logistics District and from Gate 3 on Chiles Avenue. Abrams Elementary School and Mesa School Age Center may experience ambient noise levels up to 60 dBA from heavy truck traffic and industrial activity within the Fort Carson Logistics District (USEPA 1981a, TRS Audio Undated).

Planned actions (see **Appendix B**) within the Fort Carson Logistics District, including the planned Gate 3 realignment and road projects, would temporarily increase the ambient noise environment during construction. Following completion of the Gate 3 realignment project, traffic would be redirected to Specker Avenue rather than continuing to use Chiles Avenue; however, commercial vehicles would continue to transit the Fort Carson Logistics District. Therefore, permanent changes in the ambient noise environment would not be expected and sensitive noise receptors including residences, community centers, and schools would continue to experience noise levels related to industrial activity and vehicle traffic.

3.8.2 Environmental Consequences

Proposed Action

Short-term, minor, adverse effects on the ambient noise environment would occur from construction activities associated with the new Disposition Services Complex. The use of heavy construction equipment would result in intermittent, temporary increases in ambient noise levels during the construction period. A variety of sounds are emitted from construction equipment such as loaders, trucks, pavers, and other work equipment. Noise levels associated with common types of construction and operation equipment are listed in **Table 3-5**. Sound levels generated by construction equipment typically exceed ambient levels by 20 to 25 dBA in an urban environment and up to 35 dBA in a quiet suburban area. The use of exhaust mufflers and other noise dampening equipment could reduce the sound level by up to 10 dBA (USEPA 1971). Construction noise typically occurs during normal workday hours, generally between 7 a.m. and 6 p.m. Because of the temporary nature of construction activities, it is anticipated that noise beyond ambient levels would cease following the construction period.

Table 3-5. Average Noise Levels for Common Construction and Operation Equipment

Category and Equipment	Predicted Noise Level (dBA)			
	50 feet	250 feet	500 feet	1,000 feet
<u>Clearing and Grading</u>				
Truck	83 to 94	69 to 80	63 to 74	57 to 68
Backhoe	72 to 93	58 to 79	52 to 73	46 to 67
<u>Construction and Paving</u>				
Concrete mixer and pumps	74 to 88	60 to 74	54 to 68	48 to 62
Paver	86 to 88	72 to 74	66 to 88	60 to 62
Dozer/ Tractor/ Front loader	75 to 80	61 to 66	55 to 60	49 to 54
<u>Operations</u>				
Forklift	46 to 51	32 to 37	26 to 31	20 to 25

Sources: USEPA 1971, TRS Audio Undated

Note: Use of construction equipment with noise control devices (e.g., mufflers) and sound barriers would result in lower noise levels than shown.

Noise would vary depending on the type of equipment used and if multiple pieces of equipment were used simultaneously. In general, the addition of a piece of equipment with identical noise levels would increase the overall noise environment by 3 dB (USEPA 1971). Therefore, additive noise levels associated with multiple pieces of equipment operating simultaneously during the construction period would increase the overall noise environment by a few dB over the noise levels produced by the noisiest equipment. These noise levels would decrease with distance from the project area (see **Table 3-5**).

Construction activities associated with the new Disposition Services Complex would be conducted within the Fort Carson Logistics District, where noise produced from roadway traffic, warehouse and maintenance activities, and other industrial activities is common. During construction, increases in trucks transiting the area between Gate 3 and the project area would occur. However, because of the existing noise generated by truck traffic in the area, adverse effects on the ambient noise level from construction-related traffic would be negligible. Construction equipment would remain at the project area during the construction period; therefore, increased truck traffic noise levels would occur only when construction vehicles are required to enter and exit the project area.

The closest noise sensitive receptor to the project area is a housing area approximately 250 feet to the west. Noise levels from construction activities at this distance would be below 80 dBA (see **Table 3-5**) and could produce sound up to 4 dBA greater than ambient noise levels. Aspen Child Development Center, Funk Community Center, Abrams Elementary School, and Mesa School Age Center are more than 1,000 feet from the project area and could experience noise levels up to 8 dBA greater than ambient levels during construction. To reduce noise effects on the nearby housing area, heavy construction equipment would include noise abatement components such as mufflers, engine enclosures, engine vibration isolators, or other sound dampening supplements that could reduce the sound level by up to 10 dBA (USEPA 1971). In addition, construction would be limited to normal weekday business hours (generally 7 a.m. to 6 p.m.) and construction crews would turn off idling equipment when not in use to further limit noise effects and maintain compliance with El Paso County noise ordinance.

To prevent effects on construction crew safety from elevated noise levels, contractors would require construction personnel, and particularly equipment operators, to wear hearing protection to limit exposure to noise and protect hearing.

No long-term effects on the ambient noise environment would occur from operation of the new Disposition Services Complex because operational activities are consistent with ongoing activities within the Fort Carson Logistics District. Because no new mission or operation changes are anticipated under the Proposed Action, no new operational noise sources are expected. Trucks would access the new complex via Gate 3 and Chiles Avenue, which would be a continuation of existing operations activities within the industrial area. Additionally, similar materiel processing and storage activities are already occurring at the existing complex, which is just north and east of the project area. Therefore, operation of the new Disposition Services Complex would not affect the ambient noise environment at the nearby housing area, which is subject to increased ambient noise levels from existing truck traffic associated with Gate 3. Following the completion of the Gate 3 realignment project, commercial truck traffic would be directed along Specker Avenue, which would decrease ambient noise levels for noise sensitive receptors along Chiles Avenue. Operational noise sources from DLA activities, such as forklifts, would be present within the area; however, noise levels at the new Disposition Services Complex would not exceed 51 dBA at 50 feet, which would not exceed ambient noise levels permitted by El Paso County (see **Table 3-5**).

No Action Alternative

Under the No Action Alternative, construction of the new Disposition Services Complex would not occur and no noise beyond ambient levels identified in **Section 3.8.1** would result. Therefore, no effects on noise would be anticipated.

3.9 Water Resources

3.9.1 Affected Environment

Groundwater. The availability, movement, and quality of groundwater is dependent on the distribution, permeability, and composition of the rock units that comprise the underlying aquifer. Groundwater at Fort Carson occurs in alluvial and bedrock aquifers. The alluvial aquifer with the greatest potential for water production occurs along Little Fountain and Rock creeks in the eastern portion of the installation where the alluvium, comprised of low to moderately permeable soils, is approximately 60 feet thick and well yields greater than 100 gallons per minute have been

measured. Depth to water within the alluvial aquifer ranges from less than 1 foot to more than 40 feet below the ground surface. The principal bedrock aquifer at Fort Carson is the Dakota-Purgatoire aquifer, which underlies most of the installation and can yield 10 gallons per minute. The Dakota-Purgatoire aquifer underlying Fort Carson is between 1,500 and 2,000 feet below the ground surface. It is part of the Dakota-Glen Canyon aquifer system and is the most extensive and potentially productive bedrock aquifer in southeastern Colorado. Recharge of the alluvial and bedrock aquifers is from infiltration of precipitation and stream flow in areas where the aquifer is exposed at the ground surface. Discharge occurs mostly from well pumping and leakage through overlying formations (USGS 1984). Groundwater at Fort Carson is not used as a drinking, domestic, or industrial water supply (DLA 2020).

Surface Water. Streams on Fort Carson flow from the northwest to the southeast. The Fort Carson cantonment area drains to four watersheds on the installation including B Ditch, Clover Ditch, Infantry Creek (previously referred to as Central Unnamed Ditch), and Rock Creek. Surface runoff from the project area flows into the B Ditch drainage basin, which is within the Fountain Creek drainage basin of the Arkansas River Basin (Fort Carson 2016c).

There are no surface water features within the project area; however, there are drainage ditches north and south of the project area. Stormwater from the north side of the project area is collected in the northern drainage ditch and flows east to a culvert under Specker Avenue. Stormwater from the rest of the project area is collected in the southern drainage ditch. Stormwater from the Specker Avenue culvert and the southern drainage ditch drain into Fountain Creek, which is approximately 3 miles east of Fort Carson and eventually discharges into the Arkansas River to the south (Fort Carson 2016c). The average water flow for streams on Fort Carson and associated headwaters is approximately 2 to 5 cubic feet per second (Fort Carson 2020).

The Colorado Department of Public Health and Environment Water Quality Control Commission provides quantitative and qualitative goals for water quality for the Arkansas River Basin (5 Code of Colorado Regulations 102-32). Waterbody segments that do not meet their specified criteria (based on their designated use) are listed as “impaired” under Regulation #93 – Colorado’s Section 303(d) List (5 Code of Colorado Regulations 1002-93). Fort Carson does not have any waters within its boundaries that are listed as impaired on Colorado’s Section 303(d) list; however, portions of Fort Carson’s tributaries, including Fountain Creek and Wild Horse Creek, are listed as impaired for selenium and/or *E. coli* and sections of the Purgatoire River have been listed as impaired for selenium (Fort Carson 2020). There are no Section 303(d)-listed impaired waters in the vicinity of the project area (CDPHE 2018).

Fort Carson is authorized to discharge stormwater runoff from Municipal Separate Storm Sewer System outfalls to receiving waters, including B Ditch, Clover Ditch, Infantry Creek, and Rock Creek, under a USEPA NPDES individual permit (Permit No. COR042001) in accordance with the CWA (USEPA 2015a). To meet the requirements of the Municipal Separate Storm Sewer System permit, Fort Carson implements a Stormwater Management Plan that outlines measures to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality (Fort Carson 2016c).

Industrial stormwater discharges at Fort Carson are regulated and authorized under the USEPA NPDES MSGP for Stormwater Activities Associated with Industrial Activity (Permit No. COR05F003) (USEPA 2015b). To meet the requirements of the MSGP, a Stormwater Pollution Prevention Plan (SWPPP) has been developed and applies to all industrial facilities managed by Fort Carson (Fort

Carson 2015d). The Fort Carson Directorate of Public Works Stormwater Office conducts periodic sampling of stormwater discharges on the installation. The current Disposition Services Complex, which is north of the project area, exceeds the NPDES MSGP effluent limits for dissolved metals in stormwater because of uncovered metal material storage. In 2016, contamination was detected in the downstream surface water flows measured at the inlet into B Ditch at the southern end of the current complex (DLA 2020). Stormwater at the inlet into B Ditch continues to be sampled quarterly, and dissolved metals continue to be detected above NPDES MSGP effluent limits (Fort Carson 2021b). BMPs, including containers, coverings, wattles, and drip pans, have been employed to reduce stormwater effluents in accordance with Fort Carson policy (DLA 2021a, DLA 2021b).

Fort Carson administers a construction stormwater program to address construction site runoff. For ground disturbance projects greater than or equal to 1 acre, construction site operators are required to develop an SWPPP that provides protection against erosion, sediment, and other potential pollutants (Fort Carson 2016c). According to Garrison Code #17, *Enforcement of Construction Site Stormwater Management Program Policy*, Fort Carson also requires applicable construction projects to be covered by an NPDES Construction General Permit administered by USEPA Region 8.

Floodplains. The project area for the new complex is not within the 100-year floodplain, but portions of the current complex are within the 100-year floodplain (see **Figure 3-1**) (USACE 2012). As a result, the current complex is subject to frequent flooding associated with B Ditch (DLA 2019).

Foreseeable climate effects in the region could increase the frequency and intensity of flooding events. However, planned actions within the Fort Carson Logistics District would address flood risks associated with B Ditch and implement stormwater BMPs to reduce the chance of flooding in the area (see **Appendix B**).

3.9.2 Environmental Consequences

Proposed Action

Groundwater. Short-term, negligible, adverse effects on groundwater could occur from construction activities under the Proposed Action. Construction of the new Disposition Services Complex, including pavement and utility line removal, would require ground disturbance; however, it is anticipated that ground disturbance activities would not reach or disrupt the local groundwater table and would not require dewatering activities.

Construction personnel would be responsible for ensuring that construction equipment is in good operating order and following requirements of the Fort Carson Hazardous Materials Management Program and Spill Prevention, Control, and Countermeasure Plan to reduce the potential for a hazardous material release to groundwater. Based on the low to moderately permeable soils that overlie the alluvial aquifer at Fort Carson and prompt cleanup response, any incidental contaminant releases from construction equipment would not be anticipated to reach the groundwater table.

Under the Proposed Action, no permanent mission or operation changes would occur at the new complex; therefore, new processes would not be introduced, and the quantity of materiel processed and stored would not change from existing conditions. Installation of groundwater wells would not be required at the new complex, so there would be no impact on local aquifer discharge and recharge rates. Therefore, no long-term effects on or increased risk to groundwater would be anticipated.

Surface Water. Short-term, negligible, adverse effects on surface water would occur during construction. Construction of the new complex and associated utilities would require ground disturbance activities (e.g., minor grading, pavement removal, trenching, and culvert and detention pond construction) that could result in increased erosion and sedimentation into surface waters. Because the Proposed Action would disturb at least 1 acre of land, the construction contractor would be responsible for providing a site-specific SWPPP and obtaining an NPDES Construction General Permit from USEPA Region 8. Stormwater BMPs (e.g., silt fencing, inlet protection, and natural ground covers) would be implemented to avoid and minimize sedimentation and erosion.

Long-term, minor, beneficial effects on surface water would occur from improvements to the stormwater management system within the project area, construction of permanent stormwater BMPs, and proper management of metallic material storage areas. Improvements include construction of drainage features and a stormwater detention pond, installation of a high-capacity oil-water separator downstream of the detention pond, paving of open storage areas that would direct stormwater flows, and installation of riprap spillways and aprons at pipe outlets to dissipate flow and prevent erosion. Storm drainage features at the new complex would direct flows to the detention pond, which would hold stormwater and allow sediment to settle before releasing stormwater to the drainage ditch north of the project area, or to the culvert under Specker Avenue. Exact specifications of the detention pond, including flow rates, pond volume, and pond configuration, would be determined in follow-on design phases; however, the detention pond would be designed to manage runoff so as not to exceed the predevelopment rates of discharge for up to a 100-year storm event (DLA 2020). Design of all stormwater management systems and BMPs would conform to the Fort Carson Installation Design Guide and NPDES permits.

Fort Carson would be responsible for updating the NPDES MSGP and associated installation-wide SWPPP to address industrial activity at the new complex. Exposure of material stockpiles would be minimized whenever practicable to prevent contact with stormwater runoff and reduce pollutants. To address dissolved metals in stormwater and bring DLA operations into compliance with the MSGP and Fort Carson's SWPPP, outdoor metals would be stored off the ground, in sealed containers, or covered with tarps, tents, or temporary sheds, when practicable. Scrap and waste stockpiles may be covered with semi-permanent covers, which could include plastic or canvas tarps. When covering materials is not feasible because of constant turnover, temporary BMPs including rock socks, silt fencing, temporary berms, or other controls may be used to prevent polluted stormwater runoff, in accordance with the SWPPP (Fort Carson 2015d).

The Proposed Action would result in an increase of approximately 11.1 acres of impervious surfaces at the installation and would require compliance with Section 438 of the Energy Independence and Security Act (required for land disturbances greater than 5,000 ft² [0.1 acre]). Section 438 establishes stormwater design requirements for development and redevelopment projects to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the project area regarding the temperature, rate, volume, and duration of flow. The new complex also would meet other requirements of the EISA, as well as requirements of the Energy Policy Act of 2005 and Army Stormwater Management Using Low Impact Development Guide. DLA would implement LEED silver rating design standards and other sustainable infrastructure and low-impact development measures, which would be chosen based on site-specific conditions and limitations.

Floodplains. The new complex and all construction activities would be sited outside of the 100-year floodplain. Construction vehicles and materials would not be stored within the 100-year floodplain. The proposed detention pond would be sized and sited to avoid the 100-year floodplain and would

regulate stormwater flows so as not to exceed the predevelopment rates of discharge for up to the 100-year storm event (DLA 2020). Long-term, minor, beneficial effects would occur from moving the Disposition Services Complex and DLA operations out of the 100-year floodplain.

No Action Alternative

Under the No Action Alternative, construction of the new Disposition Services Complex would not occur and no new effects on water resources would result. Existing conditions would remain as described in **Section 3.9.1**. Sustained storage of uncovered metals at the current complex would continue to cause exceedance of permitted metals in stormwater discharges and noncompliance with the NPDES MSGP permit.

3.10 Combined Environmental Consequences

Per 40 CFR § 1501.3(b), agencies should consider the effects of connected actions when determining whether the effects of a proposed action would be significant. Consequently, this subsection presents a brief analysis of the combined effects of the Proposed Action (see **Sections 3.3 through 3.9**) and the proposed contractor yard (see **Appendix A**).

Table 3-6 summarizes the short- and long-term environmental consequences of the Proposed Action, proposed contractor yard (connected action), and the combined effects of both actions. The combined effects would not be significant for any of the resource areas.

Table 3-6. Combined Effects

Resource Area	Proposed Action Effects	Connected Action Effects	Combined Effects
Air Quality	short-term, minor, adverse long-term, minor, adverse	short-term, negligible, adverse long-term, negligible, adverse	short-term, minor, adverse long-term, minor, adverse
Biological Resources	short-term, negligible, adverse long-term, negligible, adverse long-term, minor, beneficial	short-term, negligible, adverse long-term, negligible, adverse	short-term, negligible, adverse long-term, negligible, adverse
Cultural Resources	none	none	none
Hazardous Materials and Wastes	short-term, negligible, adverse long-term, negligible, adverse	short-term, negligible, adverse	short-term, negligible, adverse long-term, negligible, adverse
Infrastructure (Utilities and Transportation)	short-term, minor, adverse long-term, negligible, adverse long-term, minor, beneficial	short-term, negligible, adverse long-term, negligible, adverse	short-term, minor, adverse long-term, negligible, adverse
Noise	short-term, minor, adverse	short-term, minor, adverse	short-term, minor, adverse
Water Resources	short-term, negligible, adverse long-term, minor, beneficial	short-term, negligible, adverse long-term, negligible, adverse	short-term, negligible, adverse long-term, negligible, beneficial

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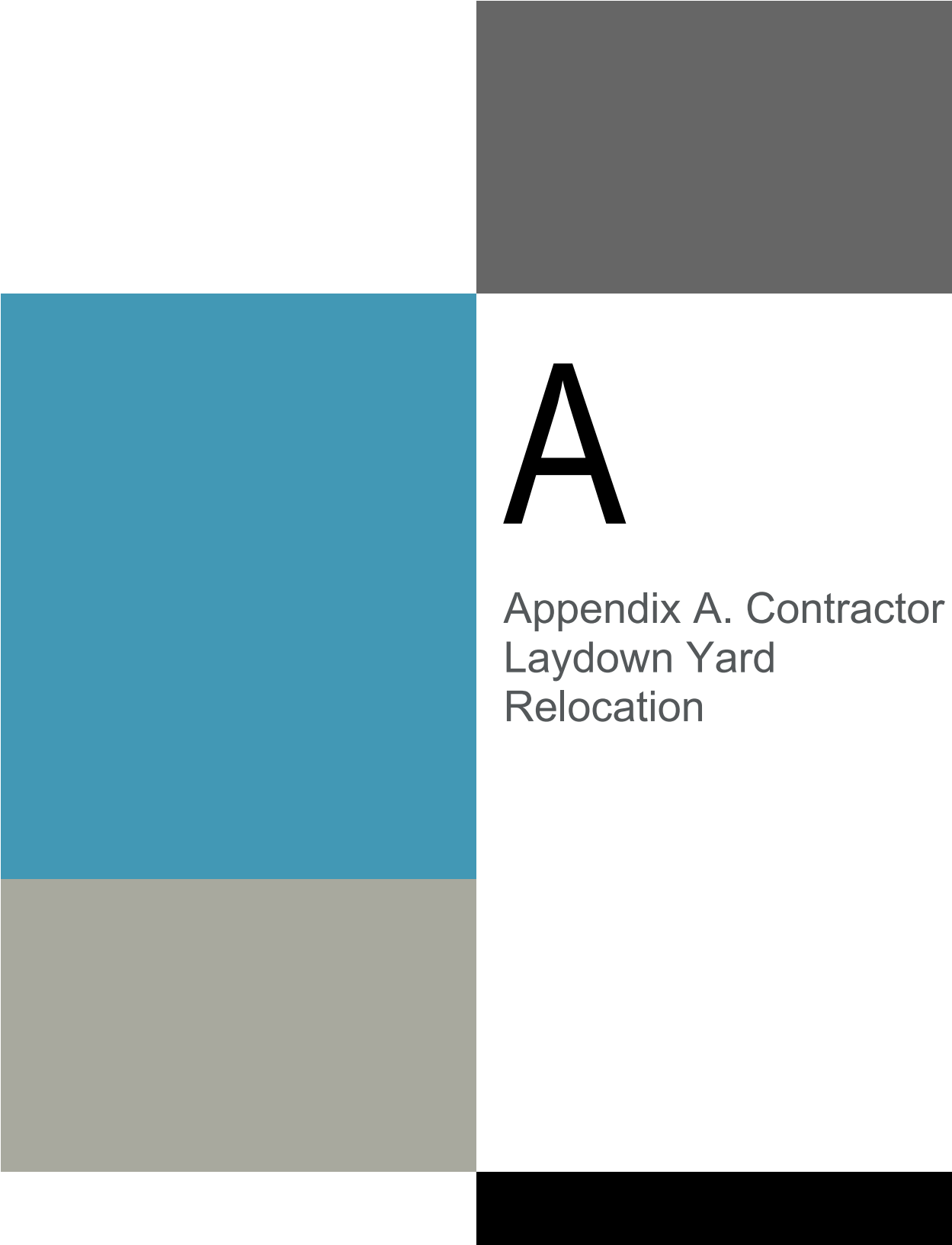
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Appendix A. Contractor Laydown Yard Relocation

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Description

The proposed contractor yard is connected to the Proposed Action (construction and operation of a new Disposition Services Complex) in that the construction of the new complex would require the relocation of the current contractor yard. The contractor yard provides a designated space for an office trailer, minimal enclosed storage trailers, and company vehicles as required to support active Fort Carson contracts.

The contractor yard would be relocated to a site along Butts Road (see **Figure A-1**). The site has been disturbed by previous and current uses that include temporary storage of materials for construction along Butts Road and down range and staging site for the porta-potty contractor. Most of the site is native surface storage areas (soil) surrounded by fencing. A small portion of the site is open field vegetated with grass and some brush. A more detailed description of the affected environment at Fort Carson is in **Section 3** of this EA.

The proposed contractor yard would be 10 acres in size and would be divided into 20 to 25 lots to allow for contractors to have designated space. Each lot would require installation of utilities (e.g., electricity, water, wastewater), fencing, and security lighting. Construction also would include re-routing the current access points to Butts Road farther to the south for safer access to and from the site.

Environmental Consequences

The analysis of the proposed contractor yard is included in this EA as required by 32 Code of Federal Regulations § 1501.3(b). The potential effects of the construction and operation of the proposed contractor yard would not overlap in space or time and are analyzed separately from the Proposed Action. Because the site would be used in a similar manner to its current use, and for reasons similar to those presented for the Proposed Action in **Section 3.2**, construction and operation of the proposed contractor yard is expected to have no effects on aesthetics and visual resources, airspace management, geological resources, health and safety, land use, socioeconomics and environmental justice, and utilities or energy demand.

Air Quality. The northern portion of Fort Carson's cantonment area, including the site, is in a maintenance area for carbon monoxide. The *Revised Carbon Monoxide Attainment/ Maintenance Plan Colorado Springs Attainment/Maintenance Area* covers Colorado Springs as a maintenance area. Because the region is not in full attainment with the National Ambient Air Quality Standards for carbon monoxide, the proposed contractor yard is subject to the General Conformity Rule. Construction and operation of the Proposed Action is estimated to result in less than 4 tons per year of carbon monoxide during its highest year (see **Section 3.3.2**). Therefore, it is assumed construction and operation of the proposed contractor yard, which is smaller in area and would only contain trailers, would be less than 4 tons per year of carbon monoxide, which is less than the 100 tons per year *de minimis* level threshold for General Conformity Rule conformity analysis.

Best management practices (BMPs) in Fort Carson's Fugitive Dust Control Plan would be followed. The BMPs focus on control measures to implement that would minimize fugitive dust emissions and avoid exceeding the threshold levels dictated by the state regulations. Construction and operation of the proposed contractor yard would result in short- and long-term, negligible, adverse effects on air quality.

Figure A-1. Location of the Proposed Contractor Yard on Butts Road



Biological Resources. The majority of the site is native surface (soil) used for temporary storage, which does not provide much wildlife habitat. The small portion of the site that is vegetated (grass with some shrubs) may provide habitat for migratory birds protected under the Migratory Bird Treaty Act. Removal of vegetation during construction would require coordination with Fort Carson's Wildlife Biologists to ensure migratory birds are not impacted. The loss of habitat would be a long-term, negligible, adverse effect.

The area immediately east of the proposed contractor yard has been used by prairie dogs, which were controlled in December 2020. Burrowing owls, a Colorado threatened species and protected under the Migratory Bird Treaty Act, are primarily restricted to prairie dog colonies during nesting season; however, they may use other natural burrows occasionally. Consequently, soil disturbance to the area east of the proposed contractor yard during the burrowing owl nesting season would require coordination with Fort Carson wildlife biologists.

The risk of invasion and spread of non-native invasive plant species from construction would be negligible with implementation of BMPs such as washing machinery during construction. Operation of the proposed contractor yard would not increase the risk over existing conditions because of the

similarity of the current use to the proposed use. Construction and operation of the proposed contractor yard would result in short- and long-term, negligible, adverse effects on biological resources.

Cultural Resources. There are no cultural resources or sites eligible for the National Register of Historic Places on the site. There would be no effect on cultural resources from construction or operation of the proposed contractor yard.

This activity is exempted from further Section 106 consultation under *Programmatic Agreement among the U.S. Army Garrison Fort Carson, the Colorado State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding Construction, Maintenance, and Operations Activities for Areas of Fort Carson, Colorado* (Fort Carson Built Environment Programmatic Agreement), executed March 27, 2013, and amended March 23, 2018. Construction would follow the Inadvertent Discovery Standard Operating Procedures in the 2017-2022 Fort Carson Integrated Cultural Resource Management Plan.

Hazardous Materials and Wastes. A groundwater plume associated with Solid Waste Management Unit (SWMU) 13 crosses the southern portion of the site. The primary contaminant in the groundwater plume is volatile organic compounds (VOCs) including tetrachloroethylene, trichloroethylene, and their daughter products. Fortunately, in the area of the proposed contractor yard, the levels of VOCs are low. One contaminant that is still above the cleanup level is 1,4-dioxane, which is a semi-volatile organic compound and does not present the same concern for vapor intrusion as VOCs. There are several nearby wells to accommodate monitoring the SWMU and restoration efforts but none are within the site.

Fort Carson Hazardous Waste Permit (Permit CO-17-08-29-01) issued by the Colorado Department of Public Health and Environment dictates how the SWMUs are managed on Fort Carson and outlines SWMU specific mitigations for the use of the affected land. The monitoring wells are important for treatment of the SWMU and cannot be impacted by the proposed contractor yard. The permit also prohibits any residential structures from being constructed on the groundwater plume. Structures for other uses, such as offices, would need to be properly designed, constructed, and maintained with respect to vapor intrusion mitigation systems. Non-occupied structures such as storage sheds may be constructed over the groundwater plume without mitigation.

Construction and operation of the proposed contractor yard would not impact the SWMU because of the depth of the groundwater plume and the lack of monitoring wells within the site. Should unknown contamination be discovered or unearthed during ground-disturbing activities, the construction contractor would immediately stop work, contact appropriate installation personnel, and implement appropriate safety measures. There would be no effect to health or human safety because construction and operation of the proposed contractor yard, including the siting of administrative trailers by contractors on the plume, would follow the Fort Carson Hazardous Waste Permit.

Short-term, negligible, adverse effects on hazardous materials and wastes would occur from construction of the proposed contractor yard, which would use and generate small amounts of hazardous materials and wastes. All hazardous materials, petroleum products, and hazardous wastes used or generated during construction would be managed in accordance with Fort Carson's Hazardous Materials Program, Hazardous Waste Management Plan, and Pollution Prevention Plan. The site does not contain hazardous materials, hazardous wastes, or petroleum products.

No long-term effects from hazardous materials and wastes would result from operation of the proposed contractor yard, which would not require new or increased quantities of hazardous materials or wastes beyond those currently used at the existing contractor yard.

The existing trailers proposed for relocation are unlikely to contain asbestos-containing materials, lead-based paint, and polychlorinated biphenyls; therefore, these toxic substances are not expected to be a concern.

El Paso County, Colorado, is in radon zone 1 with predicted average indoor radon screening levels greater than 4 picocuries per liter. Although basements and poorly ventilated areas are most commonly affected by radon, any indoor space in contact with the ground is at risk. It is assumed that Unified Facilities Criteria 3-490-04A, Indoor Radon Prevention and Mitigation, is not applicable to the proposed relocation of the trailers because they are not newly constructed and would not be substantially altered. If future testing reveals indoor radon concentrations within the trailers at or above 4 picocuries per liter, then radon mitigation should be conducted.

Noise. The site is within the Butts Corridor District, which is adjacent to the Small Arms Ranges District. As such, the existing noise environment is likely similar to an industrial area. Construction of the proposed contractor yard would result in short-term, minor adverse effects on noise, particularly to the occupants of adjacent buildings such as Buildings 9100 and 9102. There are no residential communities in the area that would be impacted. No additional long-term noise effects are expected because the site would be used in a manner similar to its current use.

Traffic and Transportation. Short-term, negligible, adverse effects on transportation would occur from a temporary increase in construction-related traffic. Operation of the proposed construction yard would result in long-term, negligible, adverse effects on transportation from a slight increase in traffic.

The 2015 Fort Carson Comprehensive Transportation Study found that during peak hours the intersection of Butts Road and Main Supply Route 5A is quite congested and turning left onto Butts Road from MSR 5A can lead to long delays. Construction of the proposed contractor yard at the site may add to this congestion but the effect would be negligible.

The traffic associated with the current contractor yard is small compared to the number of vehicles that travel Butts Road during peak hours. The contractors using the site may find that there is more of a delay to get into and out of proposed contractor yard compared to the current contractor yard but the additional traffic would be negligible on Butts Road. The effects to the contractors using the site would be lessened by the recent addition of a southbound turn lane on Butts Road for left turns onto MSR 5A and the widening of the intersection of MSR 5A and Butts Road.


Water Resources. There are no streams or wetlands on or adjacent to the site. There is a small ditch that captures the water from the detention pond for the stormwater runoff from Buildings 9100 and 9102 west of the site.

Short-term, negligible, adverse effects on surface water would occur during construction. Construction of the proposed contractor yard would require ground disturbance activities (e.g., minor grading, trenching) that could result in increased erosion and sedimentation into surface waters. If construction would disturb at least 1 acre of land, the construction contractor would be responsible for providing a site-specific Stormwater Pollution Prevention Plan and obtaining a National Pollutant Discharge Elimination System Construction General Permit. Stormwater BMPs (e.g., silt fencing,

inlet protection, and natural ground covers) would be implemented to avoid and minimize sedimentation and erosion.

The proposed contractor yard would slightly increase impervious surface at the site due to the addition of the trailers, which would have a long-term, negligible, adverse effect on stormwater runoff at the site.

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Appendix B. Environmental Trends and Planned Actions

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Environmental Trends

Ecological Trends. Detailed information on the ecological trends and findings of on-going monitoring can be found in the *Fort Carson Integrated Natural Resources Management Plan 2020 - 2025*. Fort Carson is in the Central Shortgrass Prairie, which is characterized by limited precipitation, hot summers, cold winters, and periods of drought. Climate models predict larger and more frequent wildfires due to the increase in temperatures. There may be more intense rain events that could increase the risk of flood related damage. This may affect stream stability and floodplain connectivity, which could affect stream-side vegetation and sediment transportation in the streams on Fort Carson. Climate change could increase the non-native invasive species on Fort Carson and could decrease the effectiveness of the current treatments used on invasive species. The changes in temperature and rain events could affect the ability to secure and use water to meet water needs down range for training, firefighting, and wildfires.

Wetlands on Fort Carson and Pinon Canyon Maneuver Site are mainly linear features associated with intermittent and perennial stream channels. The acreage of wetlands in both locations is remaining constant due to carefully reviewed projects and the implementation of mitigations during construction and training. Water quality is remaining constant in the intermittent streams, perennial streams, and reservoirs because of implementation of BMPs for construction and training.

Currently, much of the forest on the installation is overstocked and in need of thinning. There are on-going projects to reduce the tree density and the fuel loading including thinning trees, removing understory brush, and re-introducing low intensity fire into the forested areas.

There are 30 state-listed non-native invasive plant species that have invaded the urban and downrange areas of Fort Carson and Pinon Canyon Maneuver Site. There is an active program to manage and eliminate these species that includes the use of chemical control measures, biological control measures, manual removal of the plants, BMPs (such as cleaning equipment), and prescribed burning that is working to minimize the introduction and spread on the installation.

Socioeconomic Trends. El Paso County will see a more than 5 percent increase in population between 2017 and 2025, and the population for Colorado Springs will likely be home to about two thirds of these residents. By 2045, Colorado Springs will grow in population to be the size of the current City and County of Denver, but with a significantly different outlook: Colorado Springs will still have room to grow, while Denver is already land locked. A significant amount of growth continues to occur outside of Colorado Springs. This trend will continue to result in challenges for the fiscal sustainability of Colorado Springs. Although Colorado Springs' share of El Paso County's population has declined over the last several decades, recent data show that this trend may decline in the future due in part to demographic shifts and more urban housing choices.

The proportion of millennials living in the city is increasing, and furthermore, the 20- to 30-year-old age group is by far the largest for in-migration and is the most important for fueling the city's growth. This demand is driven, in part, by the strong military presence. Without appropriate housing types, jobs, and urban amenities, Colorado Springs has the potential of losing a share of this important segment of its population.¹

¹State of the City Snapshot. Colorado Springs Planning.

<https://coloradosprings.gov/plancos/page/plancos-appendix-state-city-snapshots>

Planned Actions

New Technologies. Today's Army is continuously transforming in order to provide future warfighters with the concepts, capabilities, and organizational structures they need to dominate a future battlefield. The Army Modernization Strategy (AMS) describes how the Army will transform into a multi-domain force by 2035, meet its enduring responsibility as part of the Joint Force to provide for the defense of the United States, and retain its position as the globally dominant land power. The AMS is the Army's plan to deliver a Multi-Domain Operations capable force and explains how the Army will operationalize the concept.

The AMS supports the priorities outlined in the Army Strategy. The Army's strategic approach is focused on maintaining the priorities and generating irreversible momentum. The six Army modernization priorities — long range precision weapons; next generation combat vehicles; future vertical lift; network, air, and missile defense; and soldier lethality — remain constant. The 2019 AMS lays the foundation for future Army modernization and continuous modernization. This approach integrates the elements of doctrine, organizations, training, materiel, leader development and education, personnel, facilities, and policy within the Army, with other Joint Force elements, and alongside allies and partners.

In response to the AMS, there are several new technologies being planned and programmed for use at Fort Carson and Pinon Canyon Maneuver Site. They include the following:

- Indirect Fires Protection Capability (IFPC) is a mobile, ground-based weapon system designed to defeat unmanned aircraft systems and cruise missiles. The system will use an existing interceptor and sensor and will develop a launcher on an existing vehicle platform to support the Counter-Unmanned Aircraft Systems and Cruise Missile Defense missions. The system will use the Army Integrated Air and Missile Defense (AIAMD) open systems architecture and will use the AIAMD Integrated Battle Command System as its mission command component. The IFPC is transported on wheeled vehicles. There are expected to be an additional 90 soldiers when a unit receives the IFPC system.
- Optionally Manned Fighting Vehicle is a tracked vehicle and is the planned replacement for the Bradley Fighting Vehicle. It can operate as a crewed vehicle but will also have the ability to conduct remotely controlled operations while the crew is off platform. Because it is replacing an existing system, no changes in manning levels are expected.
- Future Tactical Unmanned Aerial System is a new drone to replace the Army's medium size drones such as the RQ-7 Shadow. It will enable multi-domain capabilities for brigade air-ground operations via significant improvements in operational capability, survivability, reliability, availability, maintainability, and mobility. Because it is replacing an existing system, no changes in manning levels are expected.
- AIAMD will develop a unified air defense by providing the ability for soldiers to connect various air defense weapons and systems to a single command and control network, allowing the air defense soldier to control all the various weapons and sensors that form an air defense network through a single battle command system. AIAMD is predominately a computer and networking system housed in an Engagement Operations Center facility that is

transported on wheeled vehicles. Fielding of the AIAMD is expected to be to existing units and no change in manning levels is expected.

- The Armored Multi-Purpose Vehicle (AMPV) is the replacement for the M113 Family of Vehicles within the Armored Brigade Combat Team. The AMPV provides significant capability improvement over the M113 in force protection, survivability, mobility, and power generation to incorporate the Army's inbound network and other future technologies. The AMPV is a tracked vehicle based on the Bradley Fighting Vehicle chassis that is larger and heavier than the M113. The equipment replacement ratio is expected to be one for one and no changes in manning levels are expected.
- Extended Range Cannon Artillery 1 and 2 (ERCA 1 and ERCA 2) will deliver integrated cannon artillery technology solutions to increase lethality for U.S. Army 155 mm indirect fire systems. It will increase the systems range to over 60 kilometers, minimize weight growth over current armaments, increase the rate of fire, and reduce crew burden through automation. The ERCA 1 & 2 is expected to field to existing artillery batteries and no change in manning levels is expected. It is assumed that ERCA 1 & 2 training can be accomplished with simulated firing, firing munitions with a shorter range that will not exceed installation range boundaries, or firing at a range on a different installation that can accommodate the munition.
- Directed Energy M-SHORAD (DE M-SHORAD) will use the same chassis as the IM-SHORAD and replace select weapons with a directed energy system to accomplish the same mission. The DE M-SHORAD is expected to field to existing units and replace equipment on a one for one basis, no change in manning levels is expected. It is assumed that the DE-M-SHORAD training can be accomplished with simulated firing, firing at targets with an appropriate backstop to intercept the directed energy beam before it leaves the firing range, or, if the required airspace is available at the installation, the directed system may be fired for training without constraints.

Stationing of Personnel. The Army is building a future force structure at Fort Carson that is shaped by new and emerging threats, technological advances, force caps, and a prevalence of Joint operations and a diminishing defense budget. The implementation of Army force realignments addresses capabilities necessary to increase lethality and survivability to set conditions to ensure ready and available Total Army forces. Force structures are changing to implement the National Defense Strategy and synchronize the Readiness and Modernization investments to incorporate new capabilities, doctrine, and force structure for a Multi-Domain Operations capable force in 2028 and the Multi-Domain Operations ready force in 2035.

Stationing actions are planned for Fort Carson between 2021 and 2028. A total of 293 soldiers will be added to Fort Carson between 2021 and 2028. This is a 1.5 percent increase over the 2020 soldier population of about 25,400.

Fort Carson currently does not have the barracks space to accommodate the stationing growth. Planned construction associated with the stationing and growth of enlisted personnel includes a barracks, Battalion Headquarters building, Company Operations Facility, and other buildings to provide specialized space for future units.

Construction. Fort Carson plans improvements to Gate 3 and adjacent roads near the project area. Improvements include realigning Chiles Road, expanding Gate 3, and adding a truck inspection area to facilitate truck access and inspection; and realigning Specker Avenue and Barger Street to improve traffic flow and safety. Gate 3 access would be via Specker Avenue instead of Chiles Avenue.

In the Logistics District (see **Figure B-1**), Fort Carson plans to construct modern and sufficient land and facilities to meet the requirements of the Logistics Readiness Center. East-west connectivity through the area will be improved through road expansion, parking lot development, and other transportation improvements. There also are plans to address flood risk factors related to B ditch in the district.

In the Banana Belt portion of Fort Carson, future plans include providing modern facilities for existing Brigade Combat Teams (BCT) plus capacity for one additional BCT if possible. The campus for Space Command units are being consolidated through renovation of existing facilities or construction of new ones. Fort Carson is seeking to improve east-west connectivity through the area by expanding roadways and sidewalks.

There are construction and building improvements planned for the Butte Road Corridor in the next 5 years. Fort Carson plans to accommodate U.S. Army Medical Department Activity facility expansions along Titus Boulevard and the construction of the National Intrepid Center of Excellence facility adjacent to Evans Hospital. Additions to the Colorado Army National Guard training complex are being planned for the next 5 years. An additional Supply Support Activity facility also is planned for construction for the newly converted Stryker BCT.

In the Downtown District, there are plans for construction of a consolidated virtual Training Aids, Devices, Simulators, and Simulations and classroom facility in the training area at the southern end of the district. Fort Carson is working to improve the downtown core including enhancing walkability within and between districts to recreational and community activities.

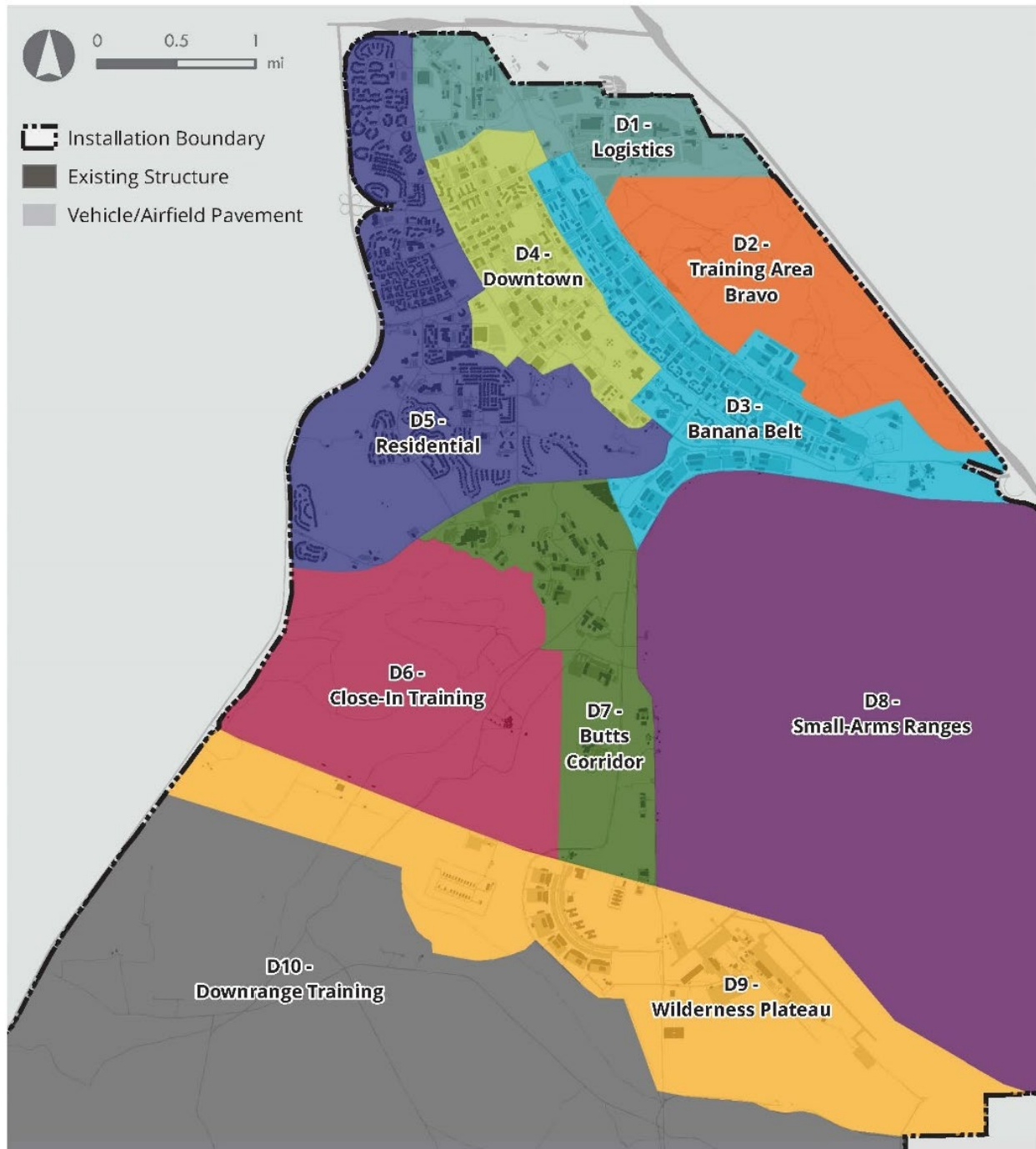
In the Residential District, Fort Carson plans on moving Abrams Elementary School in the next 5 years. The sidewalks and trail connections in multiple locations throughout the district need to be improved along with street improvements along Harr Avenue. Additional trail connections and open space also are proposed. A new youth sports complex north of Building 5950 also is planned. Balfour Beatty has plans in this phase to redevelop four of the villages. The Choctaw and Arapahoe Villages are designed more densely than the current model; redevelopment may reduce the number of units in this area. The Comanche and Cheyenne Villages also are due for redevelopment, and there is potential to add units in these two villages.

There are many improvements proposed in the near future in the Wilderness Road District. First, improvements are planned for Camp Falcon, including the paving of some roads, improvement of some of the campsites to support larger recreational vehicles through utilities connections, and expansion of the camping area. The defense access road will improve circulation from the installation to Interstate 25. Additional facilities envisioned include more stormwater detention infrastructure and a washrack for tactical vehicles. A fire station at Gate 6 is currently being designed.

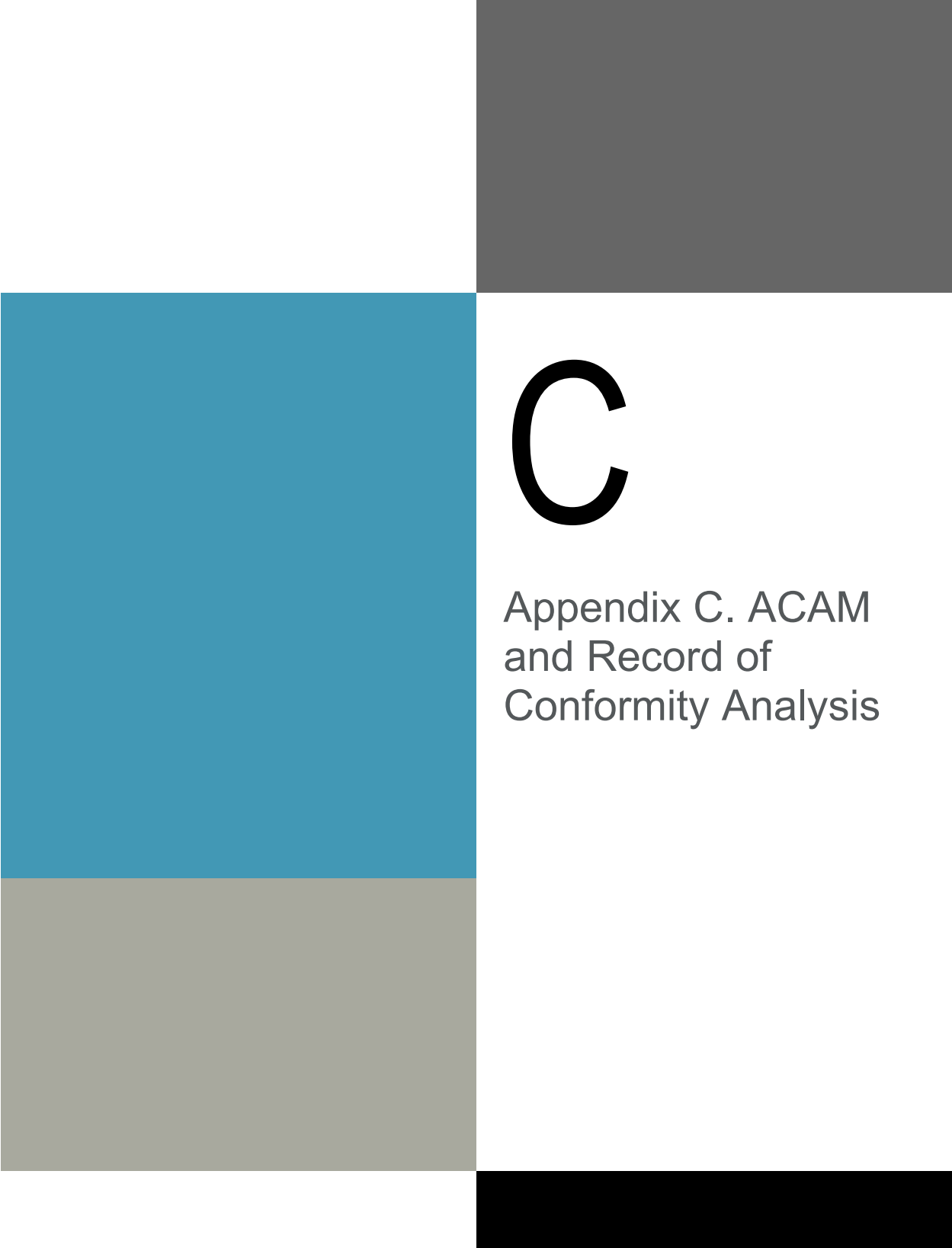
Future improvements in the Downrange District include construction of infantry squad battle courses, road improvements, and utility expansion along the main travelways. Construction of a larger

ammunition holding area is being planned in Training Area 10. An additional railhead west of the City of Fountain is being proposed and is under consideration pending funding.

Figure B-1. Map of Area Development Plan Districts at Fort Carson



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Appendix C. ACAM and Record of Conformity Analysis

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DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: FORT CARSON
State: Colorado
County(s): El Paso
Regulatory Area(s): Colorado Springs, CO

- Action Title: Construction and Operation of a New Disposition Services Complex at DLA Disposition Services, Colorado Springs, Colorado

- Project Number/s (if applicable):

- Projected Action Start Date: 10 / 2025

- Action Purpose and Need:

The purpose of the Proposed Action is to replace lost and inadequate DLA Disposition Services Colorado Springs facilities with modern, efficient facilities.

The Proposed Action is needed because the current Disposition Services Complex has an insufficient amount of enclosed building area to process and store materiel, does not meet Fort Carson's standards for metals in stormwater discharge because of uncovered metallic material storage areas, and will be critically impacted by Fort Carson's planned Gate 3 realignment and road projects.

- Action Description:

See Section 2.1 of EA.

- Point of Contact

Name: Timothy Didlake
Title: Contractor
Organization: HDR
Email: timothy.didlake@hdrinc.com
Phone Number: 484-612-1124

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	All Construction and Demolition
3.	Heating	Heat New Building Space

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

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

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

- Activity Title: All Construction and Demolition

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Description:

Assumptions:

Demolition - None

Site Grading - Starts October 2025 and lasts for 6 months. Entails grading entire site, which measures 558,000 ft², (12.8 acres), and includes removal of the contractor laydown yard, existing pavements, utilities, site lighting, and fencing.

Trenching - Starts March 2026 and lasts for 6 months occurring at various times during 2026. Entails approximately 500 linear feet of trenching for new utilities, approximately 3,500 linear feet for the security fence, and approximately 1,500 linear feet of trenching for the foundation of the proposed GPW. The trench would be 3 feet wide. No earth material would be hauled to or from the site.

Building Construction - Starts April 2026 and lasts for 18 months. Entails construction of an 80,200 ft² GPW and 1,200 ft² MHE Building for a total of 81,400 ft² of new construction. The buildings would be 30 feet tall.

Architectural Coatings - Starts October 2026 and lasts for 10 months. Entails architectural coatings to 81,400 ft² of non-residential building space.

Paving (asphalt) - Starts May 2027 and lasts for 5 months. Entails paving over 323,000 ft² (7.4 acres) for parking and open storage areas.

- Activity Start Date

Start Month: 10

Start Month: 2025

- Activity End Date

Indefinite: False

End Month: 9

End Month: 2027

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	1.946599
SO _x	0.018205
NO _x	5.472461
CO	7.440630
PM 10	34.497474

Pollutant	Total Emissions (TONs)
PM 2.5	0.206090
Pb	0.000000
NH ₃	0.004765
CO ₂ e	1779.1

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 10

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 6

Number of Days: 0

2.1.2 Site Grading Phase Assumptions

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- General Site Grading Information

Area of Site to be Graded (ft²): 558000

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	2	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

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

- Worker Trips Vehicle Mixture (%)

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

2.1.3 Site Grading Phase Emission Factor(s)

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

Excavators Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.301	000.002	000.232	003.362	000.009	000.008		000.023	00323.384
LDGT	000.363	000.003	000.402	004.534	000.011	000.010		000.024	00417.507
HDGV	000.719	000.005	001.095	015.968	000.026	000.023		000.045	00767.415
LDDV	000.125	000.003	000.135	002.442	000.004	000.004		000.008	00312.138
LDDT	000.268	000.004	000.390	004.199	000.007	000.006		000.008	00443.722
HDDV	000.480	000.013	005.052	001.697	000.168	000.155		000.028	01480.669
MC	002.615	000.003	000.838	013.632	000.029	000.025		000.054	00399.467

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

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

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

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

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

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

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

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

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

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
Start Quarter: 1
Start Year: 2026

- Phase Duration

Number of Month: 6
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 16500
Amount of Material to be Hauled On-Site (yd³): 0
Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

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

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Worker Trips

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

- Worker Trips Vehicle Mixture (%)

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

2.2.3 Trenching / Excavating Phase Emission Factor(s)

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

Excavators Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.301	000.002	000.232	003.362	000.009	000.008		000.023	00323.384
LDGT	000.363	000.003	000.402	004.534	000.011	000.010		000.024	00417.507
HDGV	000.719	000.005	001.095	015.968	000.026	000.023		000.045	00767.415
LDDV	000.125	000.003	000.135	002.442	000.004	000.004		000.008	00312.138
LDDT	000.268	000.004	000.390	004.199	000.007	000.006		000.008	00443.722
HDDV	000.480	000.013	005.052	001.697	000.168	000.155		000.028	01480.669
MC	002.615	000.003	000.838	013.632	000.029	000.025		000.054	00399.467

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

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

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

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

CEE_{POL}: Construction Exhaust Emissions (TONs)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

- Vehicle Exhaust Emissions per Phase

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

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

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

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

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

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

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 4
Start Quarter: 1
Start Year: 2026

- Phase Duration

Number of Month: 18
Number of Days: 0

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 81400
Height of Building (ft): 30
Number of Units: N/A

- Building Construction Default Settings

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

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	6
Forklifts Composite	2	6
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

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

- Worker Trips Vehicle Mixture (%)

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

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

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

2.3.3 Building Construction Phase Emission Factor(s)

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

Cranes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77
Forklifts Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449
Generator Sets Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0287	0.0006	0.2329	0.2666	0.0080	0.0080	0.0025	61.057
Tractors/Loaders/Backhoes Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872
Welders Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH₄	CO_{2e}
Emission Factors	0.0214	0.0003	0.1373	0.1745	0.0051	0.0051	0.0019	25.650

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

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH₃	CO_{2e}
LDGV	000.301	000.002	000.232	003.362	000.009	000.008		000.023	00323.384
LDGT	000.363	000.003	000.402	004.534	000.011	000.010		000.024	00417.507
HDGV	000.719	000.005	001.095	015.968	000.026	000.023		000.045	00767.415
LDDV	000.125	000.003	000.135	002.442	000.004	000.004		000.008	00312.138
LDDT	000.268	000.004	000.390	004.199	000.007	000.006		000.008	00443.722
HDDV	000.480	000.013	005.052	001.697	000.168	000.155		000.028	01480.669
MC	002.615	000.003	000.838	013.632	000.029	000.025		000.054	00399.467

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

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

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

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

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

NE: Number of Construction Equipment

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

V_{POL} : Vehicle Emissions (TONs)

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V_{POL} : Vehicle Emissions (TONs)

VMT_{VT} : Vender Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 10

Start Quarter: 1

Start Year: 2026

- Phase Duration

Number of Month: 12

Number of Days: 0

2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential

Total Square Footage (ft²): 81400

Number of Units: N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Worker Trips

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Worker Trips Vehicle Mixture (%)

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

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.301	000.002	000.232	003.362	000.009	000.008		000.023	00323.384
LDGT	000.363	000.003	000.402	004.534	000.011	000.010		000.024	00417.507
HDGV	000.719	000.005	001.095	015.968	000.026	000.023		000.045	00767.415
LDDV	000.125	000.003	000.135	002.442	000.004	000.004		000.008	00312.138
LDDT	000.268	000.004	000.390	004.199	000.007	000.006		000.008	00443.722
HDDV	000.480	000.013	005.052	001.697	000.168	000.155		000.028	01480.669
MC	002.615	000.003	000.838	013.632	000.029	000.025		000.054	00399.467

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

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

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 5

Start Quarter: 1

Start Year: 2027

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Phase Duration

Number of Month: 5

Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 323000

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

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

- Worker Trips Vehicle Mixture (%)

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

2.5.3 Paving Phase Emission Factor(s)

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

Excavators Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	CH ₄	CO _{2e}

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872
------------------	--------	--------	--------	--------	--------	--------	--------	--------

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

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
LDGV	000.301	000.002	000.232	003.362	000.009	000.008		000.023	00323.384
LDGT	000.363	000.003	000.402	004.534	000.011	000.010		000.024	00417.507
HDGV	000.719	000.005	001.095	015.968	000.026	000.023		000.045	00767.415
LDDV	000.125	000.003	000.135	002.442	000.004	000.004		000.008	00312.138
LDDT	000.268	000.004	000.390	004.199	000.007	000.006		000.008	00443.722
HDDV	000.480	000.013	005.052	001.697	000.168	000.155		000.028	01480.669
MC	002.615	000.003	000.838	013.632	000.029	000.025		000.054	00399.467

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

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

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

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

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

- Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560$$

VOC_P : Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft²)
43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

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

- Activity Title: Heat New Building Space

- Activity Description:

Assumptions:

The entire GPW and MHE building (81,400 ft²) would be heated using natural gas.
Heating emissions begin in October 2027 and continue indefinitely.

- Activity Start Date

Start Month: 10
Start Year: 2027

- Activity End Date

Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.014412
SO _x	0.001572
NO _x	0.262030
CO	0.220106
PM 10	0.019914

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.019914
Pb	0.000000
NH ₃	0.000000
CO ₂ e	315.5

3.2 Heating Assumptions

- Heating

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 81400
Type of fuel: Natural Gas
Type of boiler/furnace: Industrial (10 - 250 MMBtu/hr)
Heat Value (MMBtu/ft³): 0.00105
Energy Intensity (MMBtu/ft²): 0.0676

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO _{2e}
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

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Clean Air Act - General Conformity Rule Record of Non-Applicability (RONA) Proposed Federal Action: Construction and Operation of a Disposition Services Complex at DLA Disposition Services Colorado Springs, Colorado

The Clean Air Act, as amended, requires federal actions to conform to an approved State Implementation Plan (SIP) designed to achieve or maintain an attainment designation for air pollutants, as defined by the National Ambient Air Quality Standards. The General Conformity Rule (40 Code of Federal Regulations [CFR] § 93 and 51) applies to federal actions occurring in nonattainment or maintenance areas.

Defense Logistics Agency (DLA) proposes to construct and operate a new Disposition Services Complex at Fort Carson in Colorado Springs, Colorado. The new complex would consist of three main areas: 1) a 72,200-square foot (ft²) general purpose warehouse with an attached 8,000 ft² administration annex (total 80,200 ft²), 2) a 1,200 ft² material handling equipment building, and 3) approximately 7.4 acres of outdoor open storage areas (paved, fenced, and guttered) for an open storage lot and a scrapyard. Other features include truck scales, a loading ramp, a Radiation Assessment Detector, storm drainage, detention pond, fire protection, site information systems, site lighting, solar panels, fencing with automated and manual gates, and paving (access roadways, hardstand aprons, parking, and walkways). All necessary utilities, including electricity, water, wastewater, natural gas, and communication services, would be extended to the complex. No change in the number of personnel working at the complex is proposed and no long-term mission or operation changes are anticipated that would affect materiel storage or workload needs.

Construction would occur over a 2-year period from October 2025 to September 2027. Air emissions would be generated from the combustion of fuel during the following activities: (1) heavy equipment and vehicle use; (2) on-road hauling of construction materials and waste; and (3) construction worker passenger vehicle commuting. Fugitive dust emissions (i.e., particulate matter) would be generated during heavy equipment traffic movements and dirt-moving activities, and as wind-blown dust. Air emissions from operational activities would be produced from the combustion of natural gas to heat the proposed complex. The air emissions associated with heating would begin after the buildings become operational in October 2027 and continue each year thereafter.

The U.S. Environmental Protection Agency (USEPA) has ruled that some federal actions are exempt from the requirements in the General Conformity Rule. Under 40 CFR § 93.153 of the General Conformity Rule, the exemption indicates that actions in nonattainment and maintenance areas where the total of all annual direct and indirect emissions are below *de minimis* levels are presumed to conform to the SIP. Actions in attainment areas are not subject to General Conformity.

The portion of El Paso County where the Proposed Action would occur is designated by USEPA as maintenance for carbon monoxide (CO) and unclassified/attainment for all other criteria pollutants. Maintenance indicates that an area was previously designated nonattainment but is now attainment.

The General Conformity Rule requirements are potentially applicable for CO. **Table 1** compares the estimated annual air emissions from the Proposed Action for each year to the applicable *de minimis* threshold limits. Calculated air emissions from the Proposed Action would be well below *de minimis* threshold limits. Accordingly, the Proposed Action at Fort Carson is in compliance with the Colorado SIP and a formal General Conformity Determination is not required.

TABLE 1 - Emissions from the Proposed Action

Calendar Year	NO _x tpy	VOCs tpy	CO tpy	SO _x tpy	PM ₁₀ tpy	PM _{2.5} tpy	GHGs tpy
2025	1.065	0.196	1.260	0.004	16.694	0.041	354.6
2026	2.725	0.742	3.835	0.010	17.735	0.097	945.1
2027	1.748	1.012	2.401	0.005	0.073	0.073	558.3
2028 and Later	0.262	0.014	0.220	0.002	0.020	0.020	315.5
General Conformity <i>de minimis</i> levels	NA	NA	100	NA	NA	NA	NA

Notes: Lead emissions are not included because they are negligible for the types of emission sources under this Proposed Action. NO_x and VOC emissions are used to represent ozone generation because they are precursors of ozone.


Key: tpy = tons per year; NO_x = nitrogen oxides; VOCs = volatile organic compounds; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter measured less than or equal to 10 microns in diameter; PM_{2.5} = particulate matter measured less than or equal to 2.5 microns in diameter; GHGs = greenhouse gases; NA = not applicable.

To the best of my knowledge, the information provided is correct and accurate, and I concur in the finding that the Proposed Action will conform to the Colorado SIP.

Approved: **WACHTER.JOHN**
P.1028492835

Digitally signed by
WACHTER.JOHN.P.1028492835
Date: 2021.05.03 08:41:16 -06'00'

John P. Wachter
Environmental Compliance Branch Chief
Directorate of Public Works

A decorative graphic consisting of several overlapping rectangles in blue, grey, and black. A large blue rectangle is on the left, with a grey rectangle above it and another grey rectangle below it. A black rectangle is at the bottom right.

D

Appendix D. Public Involvement

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COMANCHE NATION



Directorate of Public Works, Environmental Division, Fort Carson, Colorado
Attn: Ms. Jennifer R. Kolise
1626 Evans St., Bldg. 1219
Colorado 80913

June 28, 2021

Re: Notice of Availability – DLA Environmental Assessment,
Fort Carson, Colorado

Dear Ms. Kolise :

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of “**No Properties**” have been identified. (IAW 36 CFR 800.4(d)(1)).

Please contact this office at (580) 595-9960/9618) if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office
Theodore E. Villicana , Technician
#6 SW “D” Avenue, Suite C
Lawton, OK. 73502

Consult Response delayed due to Covid-19 work conditions.