Draft

Environmental Assessment (EA)

for the Real Property Master Plan and Implementation of Master Planning Actions in the Storage and Warehouse Districts
Sierra Army Depot, CA

Prepared for

Sierra Army Depot, California

U.S. Army Tank-Automotive and Armaments Command

U.S. Army Material Command (AMC)

Prepared by

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ENVIRONMENTAL ASSESSMENT
FOR THE REAL PROPERTY MASTER PLAN AND IMPLEMENTATION OF MASTER PLANNING ACTIONS IN THE STORAGE AND WAREHOUSE DISTRICTS SIERRA ARMY DEPOT, CA

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APPENDIX

ACRONYMS AND ABBREVIATIONS

1	ACM	asbestos-containing material
2	ACP	Access Control Point
3	ADP	Area Development Plan
4	AQCR	Air Quality Control Region
5	BASH	bird aircraft strike hazard
6	BGEPA	Bald and Golden Eagle Protection Act
7	BMP	Best Management Practice
8	CAA	Clean Air Act
9	Cal-IPC	California Invasive Plant Council
10	CEQ	Council on Environmental Quality
11	CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
12	CFR	Code of Federal Regulations
13	CO	carbon monoxide
14	CWA	Clean Water Act
15	DoD	Department of Defense
16	EA	Environmental Assessment
17	EIS	Environmental Impact Statement
18	EO	Executive Order
19	EPA	U.S. Environmental Protection Agency
20	ESA	Endangered Species Act
21	FNSI	Finding of No Significant Impact
22	FY	fiscal year
23	GHG	greenhouse gas
24	ICRMP	Integrated Cultural Resources Management Plan
25	INRMP	Integrated Natural Resources Management Plan
26	IRP	Installation Restoration Program
27	LBP	lead-based paint
28	LF	linear feet
29	LUC	Land Use Control

MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_x	oxides of nitrogen
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PCB	polychlorinated biphenyl
PEB	Pre-Engineered Building
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
PSREC	Plumas-Sierra Rural Electric Cooperative
QWE	Quality Work Environment
RCRA	Resource Conservation and Recovery Act
RPMP	Real Property Master Plan
SF	square feet
SHPO	State Historic Preservation Officer
SIAD	Sierra Army Depot
SIP	state implementation plan
SO_2	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
T&E	threatened or endangered
TBD	to be determined
U.S.C.	United States Code
UFC	Unified Facilities Criteria
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
VOC	volatile organic compound

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1.0 INTRODUCTION

This Environmental Assessment (EA) evaluates the potential environmental and socioeconomic impacts associated with implementing real property master planning actions at Sierra Army Depot (SIAD) in Herlong, CA (the proposed action). Real property master planning is a continuous analytical process that involves evaluation of factors affecting the present and future physical development and operation of an installation. The Real Property Master Plan (RPMP) process provides (1) documentation of installation real property visions, development plans, planning standards, and capital investment strategies to enable clear communication between stakeholders and (2) a framework for installation management review of allocation of limited resources that affect, or are affected by, the use of real property assets. The bulk of installation planning occurs in the form of Area Development Plans (ADPs) at the scale of districts, which are identifiable and connected areas of each installation.

SIAD plans to implement real property master planning actions categorized as short-, mid-, and long-range projects—Phases 1, 2, and 3, respectively. This EA evaluates the impacts of the Real Property Master Plan, and the implementation of Phase 1 and 2 with a planned execution period covering approximately the next 7 years. The projects are components of the ADPs for the Storage and Warehouse districts. The EA evaluates one action alternative and a No Action Alternative for each project in Phases 1, 2 and 3.

The Army has prepared this EA in accordance with requirements of the National Environmental Policy Act (NEPA) (Title 42 of the *United States Code* [U.S.C.] § 4321 *et seq.*); its implementing regulations (Title 40 of the *Code of Federal Regulations* [CFR] Parts 1500–1508); and the Army's regulation implementing NEPA (32 CFR Part 651) and is consistent with Department of Defense (DoD) Unified Facilities Criteria (UFC) 2-100-01, *Installation Master Planning*. The Army is the lead agency for the proposed action; there are no cooperating agencies for this EA (per 40 CFR 1501.6).

1.1 INSTALLATION DESCRIPTION AND CURRENT SITUATION

SIAD is a 36,072-acre U.S. Army installation located in northeastern California, near the town of Herlong, approximately 190 miles northeast of Sacramento and 50 miles north of Reno, NV (**Figure 1**). Currently under the jurisdiction of the U.S. Army Tank-automotive and Armaments Command, SIAD is a multifunctional installation that serves as an expeditionary logistics center and U.S. strategic power projection platform. SIAD consists of four parcels: the main parcel, airfield, gravel extraction area, and the demolition ground (**Figure 2**). The main parcel occupies 32,042 acres and includes administration buildings, housing, general supply warehouses, maintenance facilities, general-purpose storage, and earth-covered igloos. The upper burning and demilitarization area covers 4,030 acres.

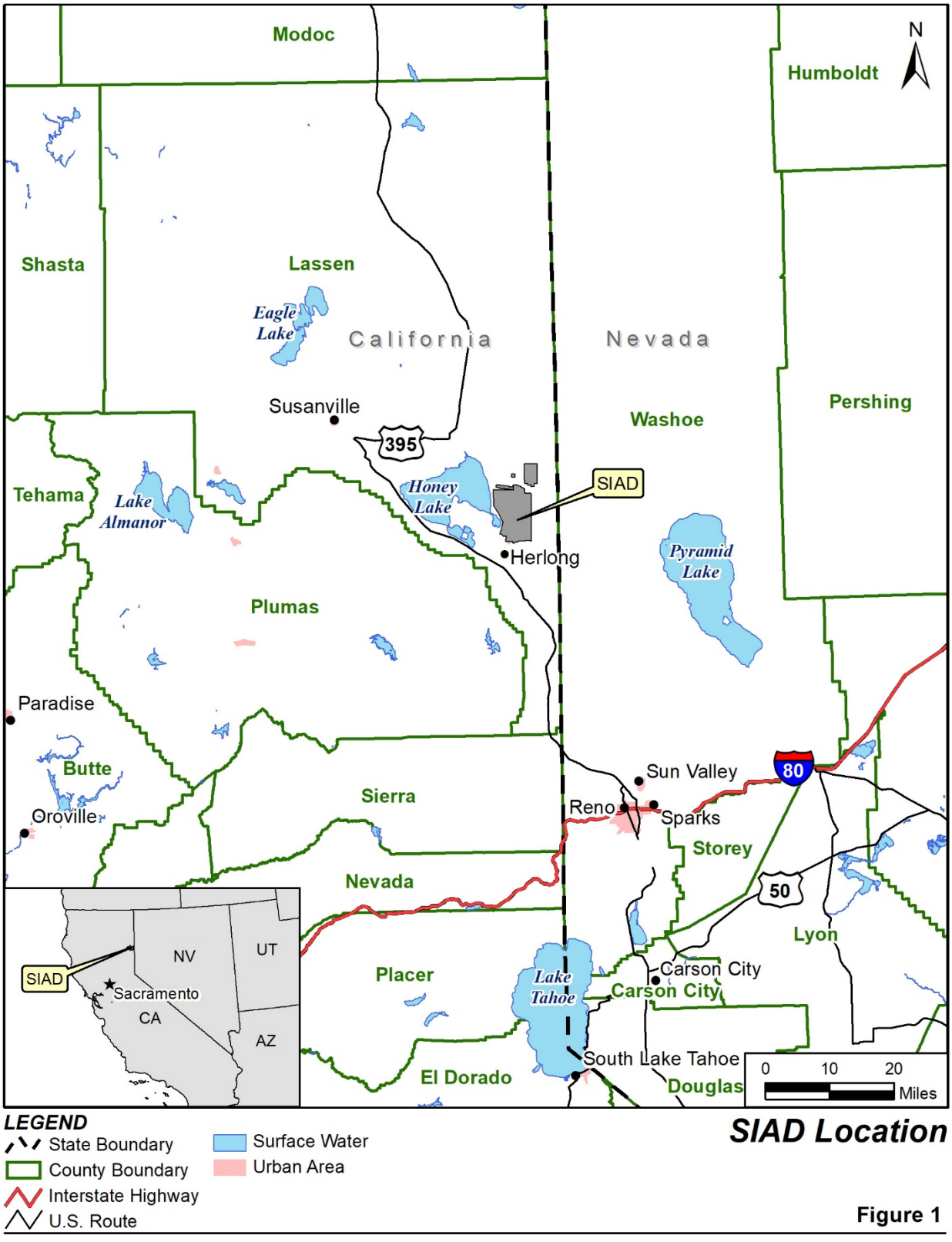

Figure 1. SIAD Location

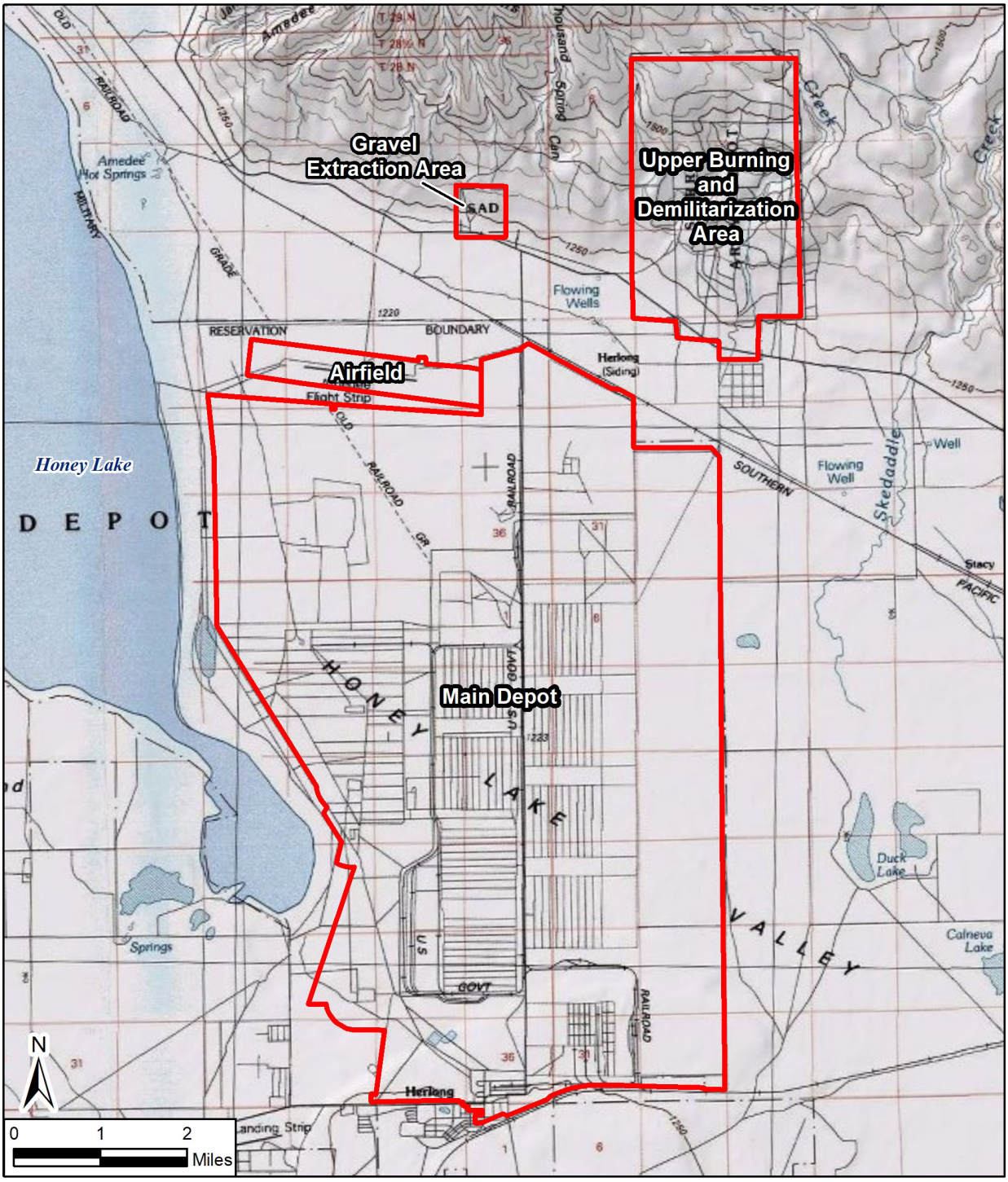

Figure 2

Figure 2. SIAD Site Map

SIAD's mission is to "provide rapid expeditionary logistics support and long-term sustainment solutions to the Army and the Joint Force." SIAD's vision is to become the Army's End of First Life Center and the continental United States-based Army prepositioned stock site while continuing to provide rapid expeditionary logistics support and long-term sustainment solutions.

Real property master planning for SIAD, conducted consistent with UFC 2-100-01 in October 2014, currently consists of two ADPs for the installation's Storage and Warehouse districts. These districts, along with the three other districts for which ADPs will eventually be developed, are shown in **Figure 3**. The ADPs support the installation's mission and identify deficiencies, shortcomings, and suboptimal conditions for facility size, capacity, quality, and configurations. SIAD is proposing implementation of the Phase 1 and 2 development projects as identified in the Storage and Warehouse District ADPs.

1.2 Purpose and Need for the Proposed Action

The purpose of the proposed action is to manage SIAD's real property assets in a thoughtful, deliberative, and sustainable manner consistent with DoD Instruction 4165.70, *Real Property Management*, and UFC 2-100-01 requirements and guidance. The proposed action is needed to address SIAD's real property deficiencies, shortcomings, and suboptimal conditions and provide safe, flexible, and efficient facilities to meet current and future installation mission requirements efficiently and cost-effectively.

1.3 Scope Of Environmental Analysis

This EA identifies, documents, and evaluates the potential environmental, cultural, and socioeconomic effects of implementing the Real Property Master Plan, and in particular the Storage and Warehouse District ADPs' Phase 1 and 2 projects over approximately the next 7 years. The short- and mid-range real property planning needs are combined with the long-range perspective of the SIAD 20+-year real property master planning horizon. The EA includes an evaluation of the short- and long-term direct, indirect, and cumulative effects of implementing those actions and informs decision makers and the public of the potential environmental consequences along with associated mitigation and avoidance measures. Sufficient details are not available to fully analyze the effects of Phase 3 projects, but the EA includes those projects as they are included in the Real Property Master Plan and provide context for the real property planning vision and capacity for future development. SIAD will conduct any additional NEPA analyses in accordance with existing statute and regulations.

Resource areas evaluated in the EA include land use, aesthetics and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics (including environmental justice and protection of children), transportation, utilities, and hazardous and toxic materials.

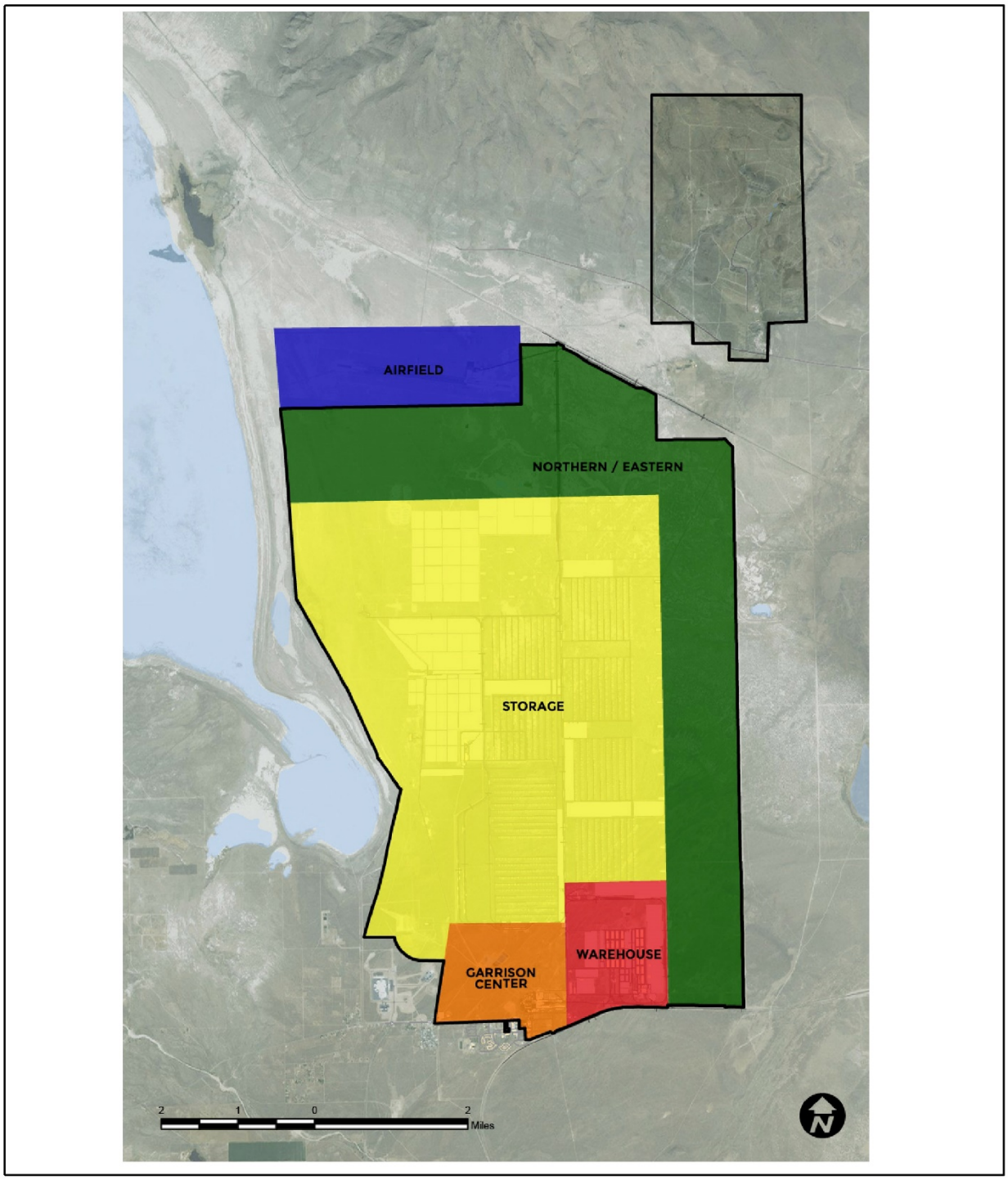

Figure 3

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Figure 3. SIAD ADP Districts

1.4 DECISION TO BE MADE

The decision to be made by the SIAD Commanding Officer is to approve or disapprove the proposed action after considering potential environmental and socioeconomic consequences and actions that protect, restore, and enhance the environment. This EA is intended to assist in that decision-making process by providing sufficient evidence and analysis for determining whether a Finding of No Significant Impact (FNSI) or an Environmental Impact Statement (EIS) should be prepared. If the potential adverse environmental impacts associated with the selected alternative would potentially remain significant after all reasonable mitigation measures have been implemented, an EIS would be warranted. If the Army moves forward with that decision, the start of the EIS process would be marked with the formal publishing of a Notice of Intent (NOI) to prepare an EIS in the *Federal Register*.

1.5 REGULATORY FRAMEWORK

In accordance with 32 CFR 651.14(2), the Army considered applicable federal, state, and local laws and regulations during analysis of the proposed action's effects on individual environmental and social resources. The following were determined to be applicable to the proposed action and, therefore, analyzed within this EA:

- Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. § 668 *et seq.*)
- Clean Air Act (CAA) (42 U.S.C. §§ 7401–7671q)
- Clean Water Act (CWA) (33 U.S.C. § 1251)
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. § 9601 *et seq.*)
- Endangered Species Act (ESA) (16 U.S.C. §§ 1531–1543)
- Migratory Bird Treaty Act (MBTA), as amended (16 U.S.C. §§ 703–712)
- National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. § 470 *et seq.*, as amended)
- NEPA
- Resource Conservation and Recovery Act (RCRA) (42 U.S.C. § 6901)
- Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500–1508)
- National Pollutant Discharge Elimination System (NPDES) (40 CFR Part 122)
- Toxic Substances Control Act (15 U.S.C. §§ 2601–2629)
- Executive Order (EO) 11988, *Floodplain Management*
- EO 11990, *Protection of Wetlands*
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*
- EO 13045, P*rotection of Children from Environmental Health Risks and Safety Risks*
- EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*
- EO 13834, *Efficient Federal Operations*

1.6 PUBLIC AND AGENCY INVOLVEMENT

The Army invites and strongly encourages public participation in the NEPA process. Consideration of the input from all interested parties promotes open communication and enables better decision-making. The Army specifically urges all agencies, organizations, and members of the public with a potential interest in the proposed action—including minority, low-income, disadvantaged, and Native American groups—to participate in the decision-making process.

Regulations in 32 CFR Part 651 guide planning and implementing opportunities for public involvement in the NEPA process and decision-making on the proposed action. The Army will make this EA, along with a draft FNSI, available to the public for 30 days, publishing a Notice of Availability of the documents in the *Reno Gazette* and online in the *Lassen County Times.* Interested parties will be able to review the documents at the Washoe County Library in downtown Reno, NV; and the Lassen Library District in Susanville, CA, and by accessing them on the internet at https://www.sierra.army.mil/, under the “Caring for our Environment” tab. Comments submitted within the 30-day public review period will be made part of the Administrative Record and will be fully considered before a final decision is made to either execute a final FNSI and proceed with implementing the proposed action or publish an NOI to prepare an EIS.

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2.0 DESCRIPTION OF THE PROPOSED ACION AND ALTERNATIVES

2.1 PROPOSED ACTION

The Army proposes to finalize its Real Property Management Plan (RPMP) and implement the RPMP by undertaking various real property master planning actions at SIAD over the next 7 years. These actions include implementation of installationwide framework elements of and standards for future real property actions as identified in the Storage and Warehouse District ADPs as well as implementation of specific projects. The ADPs consider the depot's long-range mission requirements and fiscal constraints and identify projects for execution over the next 20 or more years. The proposed action focuses on the implementation of Phase 1 and 2 projects identified in the ADPs, which consist of several types of projects: new construction, repair, and sustainment, and/or restoration and modernization projects. Phase 1 and 2 projects are anticipated to be implemented in the near-term, and they have been planned or designed in enough detail to support at which sufficiently detailed information is available to enable analysis of their potential environmental, cultural, and socioeconomic impacts. The remainder of this chapter describes the alternatives analysis process and alternatives that are evaluated in this EA.

2.2 SCREENING CRITERIA

This section discusses the alternatives development process and screening criteria. NEPA's implementing regulations require that all reasonable alternatives be explored and objectively evaluated. In addition, alternatives that are eliminated from detailed analysis must be identified and reasons provided for eliminating them. Developing alternatives is also a critical component of the master planning process. UFC 2-100-01 and 32 CFR Part 651 both include guidance for incorporating the alternatives development process from the Real Property Master planning (RPMP) process into the NEPA process.

Aligning the RPMP planning and NEPA processes for developing alternatives is a means of both streamlining the planning process and exploring and evaluating alternatives in a comprehensive and multidisciplinary manner. Under the RPMP planning process, the development of alternatives occurs at the district level, where the ADP process involves creating multiple options, enabling planners, stakeholders, and installation leadership to ensure that the ADP best fulfills the development vision. In the transition to the NEPA process, this scale and planning horizon fosters a broader level of analysis of environmental considerations and avoids inefficiencies of overly narrowly focused analyses for individual master plan projects.

In the ADP planning process, alternatives are defined as options for long-range development of the district, including arrangement of functional areas, circulation, and utility systems. Each alternative is informed by the district vision, goals, and objectives established in the ADP process. As integrated into NEPA, this element of the alternatives evaluation process forms the foundation for the criteria to define a reasonable range of alternatives. The multidisciplinary, collaborative, stakeholder-driven ADP planning process screened the alternatives against the following criteria:

- **Mission Compatibility:** The alternative must appropriately address expansion, reduction, and changes in mission.
- **Short- and Long-Range Real Property Needs:** The alternative must both provide a path forward for a 20-year planning horizon and anticipate and respond to current and short-range requirements.
- **Cost Efficiency and Financial Stewardship:** Alternatives must be practical and feasible from both technical and economic standpoints and identify opportunities for reduced life-cycle costs of real estate assets and reduction in energy and water consumption, air emissions, and waste generation.

Each Preferred Alternative that emerged from the Storage and Warehouse District ADP planning process incorporates future program requirements known at the time. Although the Preferred Alternative evolves within the context of the RPMP framework elements as the implementation progresses, it is principally from the Storage and Warehouse District ADPs.

2.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The Preferred Alternatives for both the Storage and Warehouse districts were developed through collaboration between the Facilities Engineering Department of the Directorate of Public Works, the Environmental Directorate, and the Mission directorates. Projects proposed by members of the directorates were analyzed against the screening criteria presented in section 2.2. Through detailed unit interviews, site inspections, and understanding the operational and facility requirements for the specific missions, directorate personnel proposed development options that would cost-effectively meet the overall mission and planning vision. The Preferred Alternatives resulted from this process.

Therefore, consistent with the guidance identified in UFC 2-100-01 sections 3-6.1.3 and 3-6.1.4 and 32 CFR 651.14(a)(3), through the aligned and streamlined ADP and NEPA alternatives development process, there are no viable alternatives supportive of the purpose and need for the proposed action beyond the Preferred Alternative.

2.4 ALTERNATIVES CONSIDERED

2.4.1 Proposed Action

Under the proposed action, which is the Preferred Alternative, SIAD would implement a comprehensive approach to developing the Storage and Warehouse districts using planning strategies that reinforce capabilities to support SIAD's mission, promote quality of life, and enhance sustainability and environmental viability on the installation.

Table 1 summarizes the overarching RPMP Vision Plan and installation-wide Installation Planning Standards, and the way they are evaluated in this EA. While no specific projects or actions are analyzed for these RPMP elements in this EA, the analysis of these framework planning elements provides a basis for analysis of the projects as well as subsequent, follow-on, site-specific NEPA analysis when planning details for out-year future projects become available.

Table 1. Framework RPMP Elements

RPMP element	Description	Action to be evaluated
Vision Plan	• Installation-wide planning vision, planning goals, and planning objectives • Installation-wide constraints and opportunities map(s) • Developable area map (capacity analysis) • A framework plan (i.e., districts and networks)	Establishment of a framework and context for future real property actions/projects
Installation Planning Standards	• Installation-wide standards for buildings, streets, and landscapes • Addresses sustainability and energy efficiency requirements • Promotes visual order and architectural consistency • Enhances the natural and man-made environments • Improves the functional aspects of the installation	Establishment of standards for future real property actions

Consistent with the framework planning summarized in **Table 1**, the Storage and Warehouse District ADPs establish the following SIAD real property planning vision for the installation:

> *To develop a sustainable installation through energy-efficient facilities, adaptable storage, modernized infrastructure, and integrated assets to enable Sierra Army Depot to meet its changing mission requirements and contribute to a quality work environment.*

SIAD established the following goals and objectives to meet this vision:

Goal 1: Maximize existing facility space

- Move break areas and administrative space out of warehouses to maximize existing warehouse storage capabilities (*Warehouse District only*)
- Use modular buildings
- Use flexible and more efficient racking and storage systems
- Update existing buildings to meet current standards and working requirements (*Storage District only*)

Goal 2: Plan for sustainable, modern, and efficient facilities

- Provide adequate lighting and heating to buildings
- Improve energy efficiency
- Improve operations through technological upgrades

Goal 3: Provide safe and secure circulation

- Deconflict pedestrian and transportation interactions
- Improve exterior lighting
- Make intersection improvements

Goal 4: Improve infrastructure

- Update rail availability
- Expand hardstand areas
- Update electrical, wastewater, and plumbing

Goal 5: Improve quality of life for workers

- Provide adequate restrooms and break areas
- Upgrade heating, interior lighting, and communication

Table 2 lists the Phase 1 and 2 projects identified in the Storage and Warehouse District ADPs to be implemented in approximately the next 7 years. For each of the projects, planning has matured to a level where enough detail is available to conduct a "hard look" at potential environmental impacts as required by NEPA and its implementing regulations. These projects are depicted in **Figures 4** and **5**. These figures also include the Phase 3 (long-range) projects that are not analyzed in detail in this EA since they lack the required level of detail for sufficient analysis and are not scheduled for implementation within the 7-year timeframe.

In addition to the short- and mid-range projects, the Storage and Warehouse District ADPs propose the demolition of multiple structures totaling approximately 15,000 square feet (SF). Structures proposed for demolition are coordinated with Headquarters, Army Materiel Command and the master list is updated approximately annually. Through this coordination, the specific structures on the master list might change over time; therefore, the total square footage, which is considered an upper-bound estimate, is used to support the NEPA analysis. Buildings and other structures currently proposed for demolition include storage facilities, loading docks, an observation tower, a truck inspection facility, and earthen barricades. Demolition would be done in accordance with applicable regulations, and sites would be appropriately restored following demolition. NEPA analysis for building demolition projects might also be able to tier from the 2014 *Programmatic EA for the U.S. Army Materiel Command Building Demolition Program* (Tetra Tech 2014) by following the instructions in that Programmatic EA for tiering.

1 **Table 2. SIAD Storage and Warehouse District ADP Phase 1 and 2 Projects**

Project title	ADP district	Project description	Estimated footprint		Execution timeline	
			Size (SF or LF)	Area of disturbance (acres)	Funding year	Const. year
Storage ADP Phase 1: through 2022						
Renovate Building 426	Storage	Provide for better storage in building 426 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 427	Storage	Provide for better storage in building 427 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 428	Storage	Provide for better storage in building 428 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 429	Storage	Provide for better storage in building 429 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 430	Storage	Provide for better storage in building 430 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 435	Storage	Provide for better storage in building 435 by removing asbestos, install0ing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 438	Storage	Provide for better storage in building 438 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 439	Storage	Provide for better storage in building 439 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 440	Storage	Provide for better storage in building 440 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 441	Storage	Provide for better storage in building 441 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 442	Storage	Provide for better storage in building 442 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD
Renovate Building 443	Storage	Provide for better storage in building 443 by removing asbestos, installing windows and new doors, etc.	11,333 SF	--	TBD	TBD

Project title	ADP district	Project description	Estimated footprint		Execution timeline	
			Size (SF or LF)	Area of disturbance (acres)	Funding year	Const. year
Renovate Building 583	Storage	Perform QWE upgrades and maintenance or demolish. QWE upgrades and maintenance needs are determined by completing a checklist and can include improving ventilation, temperature, acoustic environment, lighting, ergonomics, water quality, safety, communications, accessibility, utility infrastructure, building components (e.g., roof, siding), and more.	4,727 SF	--	TBD	TBD
Renovate Building 593	Storage	Perform QWE upgrades and maintenance or demolish.	5,346 SF	--	TBD	TBD
Renovate Building 599	Storage	Perform QWE upgrades and maintenance or demolish.	12,703 SF	--	TBD	TBD
D Dunnage Hardstand	Storage	Construct new hardstand (Phase 1 of 100-acre site).	--	20	TBD	TBD
North Railroad Hardstand	Storage	Construct new hardstand (Phase 1 of 400-acre site) (PAX 93091).	--	50	TBD	TBD
Warehouse ADP Phase 1: through 2022						
PEBs–Sites 8, 9, 10	Warehouse	Construction of 3 new PEBs, 8,000 SF each.	24,000 SF	--	TBD	TBD
PEBs–Sites 11, 12, 13, 14	Warehouse	Construction of 4 new PEBs, 8,000 SF each, at GS 22 site.	32,000 SF	--	TBD	TBD
New Hardstands	Warehouse	Construction of new hardstand areas.	--	--	TBD	TBD
Warehouse Heating	Warehouse	Provide heat to buildings 351 (90,409 SF), 352 (90,551 SF), 355 (90,225 SF), 359 (89,939 SF), 360 (90,385 SF), 362 (90223 SF), 366 (90,355 SF).	--	--	TBD	TBD
Water and Sewer Upgrades	Warehouse	Provide potable water and wastewater collection service to all warehouses.	8,750 LF	--	TBD	TBD
Interior Lighting Upgrades	Warehouse	Interior lighting upgrades as needed in warehouses.	1,265 fixtures	--	TBD	TBD
New Exterior Lighting	Warehouse	Northern portion of district.	40 fixtures	--	TBD	TBD
Upgrade Fire Alarm and Fire Suppression Systems	Warehouse	Provide upgrades to the existing fire suppression and alarm systems in four buildings: 309 (86,400 SF), 311 (86,400 SF), 351 (90,409 SF), 352 (90,551 SF).	--	--	TBD	TBD
New Restrooms and Break Areas	Warehouse	Construct new buildings at five locations, 1,500 SF each; locations within the center of the district.	7,500 SF	--	TBD	TBD
Relocate Administrative Operations	Warehouse	Construct four new modular buildings, 6,000 SF each, in the center of the district to include break areas and restrooms.	24,000 SF	--	TBD	TBD
Upgrade Building 207	Warehouse	Conduct renovations to the auditorium and administrative spaces in accordance with Maintenance Directorate.	1,634 SF	--	TBD	TBD

Project title	ADP district	Project description	Estimated footprint		Execution timeline	
			Size (SF or LF)	Area of disturbance (acres)	Funding year	Const. year
Paint Booth and Drying Shed	Warehouse	Construct new building (paint booth and drying shed) in the southeast corner of the district.	20,000 SF	--	TBD	TBD
Upgrade Building 205	Warehouse	Conduct renovations to the building to perform mission change to Care and Preservation.	30,000 SF	--	TBD	TBD
Pave Hardstand	Warehouse	Conduct paving of selected gravel hardstands (PAX 54499).	--	50	TBD	TBD
Storage ADP Phase 2: 2023–2030						
Renovate Building 541	Storage	Perform QWE upgrades and maintenance to building 541 to provide for personnel and Maintenance Operations use.	11,568 SF	--	TBD	TBD
Renovate Building 543	Storage	Perform QWE upgrades and maintenance to building 543 to provide for personnel and Maintenance Operations use.	13,691 SF	--	TBD	TBD
Vehicle Maintenance Building	Storage	Construct new vehicle maintenance building to fulfill anticipated program requirement.	TBD	TBD	TBD	TBD
Vehicle Maintenance Building	Storage	Construct new hardstand to serve the new vehicle maintenance building.	--	48	TBD	TBD
Vehicle Maintenance Building	Storage	Construct new pavement area at vehicle maintenance building.	--	3	TBD	TBD
Vehicle Maintenance Building	Storage	Provide potable water to new vehicle maintenance building.	1,300 LF	--	TBD	TBD
TS Sites	Storage	Construct new gravel roads; finish project begun in FY15.	--	27	TBD	TBD
D Dunnage Hardstand	Storage	Construct new hardstand (Phase 2 of 100-acre site).	--	40	TBD	TBD
Shipping/Receiving Facility North of Building 544	Storage	Construct new shipping/receiving facility in anticipation of relocating the current process.	TBD	TBD	TBD	TBD
New Hardstand	Storage	Construct new hardstand north of building 544 (Phase 1 of 300-acre site).	--	40	TBD	TBD
New Hardstand	Storage	Construct new hardstand at North Railroad Area (Phase 2 of 400-acre site).	--	50	TBD	TBD
Warehouse ADP Phase 2: 2023–2030						
Improve Road to Access Control Point (ACP)	Warehouse	Based on project report Military Construction Project Number 60858.	TBD	TBD	TBD	TBD
Hardstand GS23	Warehouse	Construct new hardstand (Phase 2 of 28-acre site).	--	21	TBD	TBD
Intersection Improvements	Warehouse	Main Magazine Road northeast of building 520.	3,400 SF	--	TBD	TBD

Project title	ADP district	Project description	Estimated footprint		Execution timeline	
			Size (SF or LF)	Area of disturbance (acres)	Funding year	Const. year
H Street Widening and Improvements	Warehouse	Widen H Street and implement related transportation infrastructure improvements.	9,000 SF	--	TBD	TBD
New Hardstands	Warehouse	South of H Street.	TBD	TBD	TBD	TBD
U.S. Army Medical Materiel Agency Hardstand and Storage Relocation	Warehouse	Relocate from southeast area of district closer to U.S. Army Medical Materiel Agency warehouse and free up space for maintenance compound expansion.	--	10	TBD	TBD
Repair Hardstand and Pavement	Warehouse	Repair hardstand and pavement.	--	10	TBD	TBD
D Street Widening and Improvements	Warehouse	Widen D Street and implement related transportation infrastructure improvements.	9,000 SF	--	TBD	TBD
Garrison/Department of Public Works Storage	Warehouse	Garrison/Department of Public Works storage.	--	10	TBD	TBD
Improve Ramps and Loading Docks	Warehouse	Improvements to four ramps/docks.	TBD	TBD	TBD	TBD
Construct New Paint Facility	Warehouse	Construct a new paint facility to be located north of existing buildings currently used as paint facilities (PAX 90059).	TBD	TBD	TBD	TBD

Sources: SIAD 2019a, b
Notes: ACP = Access Control Point; LF = linear feet; PEB = pre-engineered building; QWE = quality work environment; SF = square feet, TBD = to be determined.

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Figure 4. RPMP Projects: Storage District

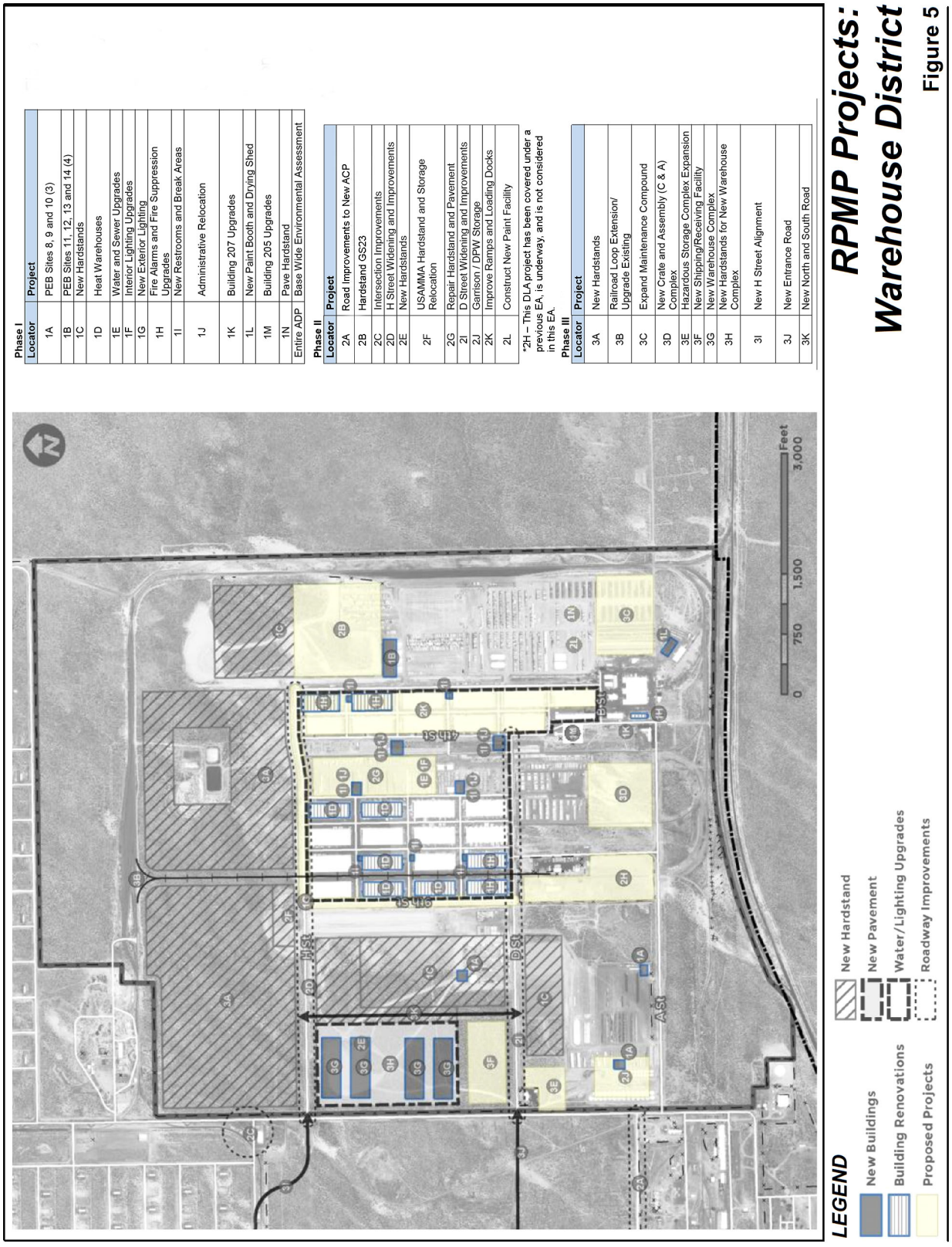

Figure 5. RPMP Projects: Warehouse District

2.4.2 No Action Alternative

CEQ regulations require analysis of a No Action Alternative to provide a benchmark enabling decision makers to compare the magnitude of the potential environmental effects caused by the proposed action and any alternative actions. The No Action Alternative is not required to be reasonable or to meet the purpose and need of the proposed action. This EA refers to the No Action Alternative as the existing (baseline) conditions of the affected environment without implementing the proposed action.

Under the No Action Alternative, SIAD would not implement the real property master planning actions, as identified in the proposed action. Without the implementation of the proposed construction, infrastructure, renovation, and modernization projects, facilities would continue to deteriorate, which would impede mission effectiveness. Continued implementation of ongoing real property master planning actions not compliant with UFC 2-100-01 would be suboptimal and lack comprehensive analysis for long-term sustainable installation development supporting mission requirements. The No Action Alternative would not satisfy the purpose of or need for the proposed action. This alternative is retained for evaluation in the EA to provide a comparative baseline against which to analyze the effects of the proposed action, as required under NEPA implementing regulations (40 CFR 1502.14[d] and 32 CFR 651.34[d]).

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3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 INTRODUCTION

This section describes the affected environment, or baseline conditions, for resources potentially affected by the proposed action or No Action Alternative, as well as the environmental consequences of that action. In compliance with NEPA, CEQ implementing regulations, and 32 CFR Part 651, the affected environment includes only those aspects of the environment potentially subject to the alternatives' effects.

Per the CEQ regulations (40 CFR Part 1500), federal agencies may focus their NEPA analysis on resource areas that could be affected by a proposed action and omit from detailed evaluation resource areas that would not be affected (see 32 CFR 651.34[e]). SIAD has reviewed all the resource areas that could potentially be affected by implementing the proposed action. As described in section 3.2, SIAD omitted the following resource areas from detailed analysis because the proposed action would have no or minimal effect on them: aesthetics and visual resources, land use, noise, and socioeconomics. SIAD carried forward the following resource areas for detailed analysis: air quality, biological resources, cultural resources, geology and soils, hazardous and toxic materials, transportation, utilities, and water resources. Sections 3.3 through 3.10 discuss those resources.

3.2 RESOURCES NOT CARRIED FORWARD FOR DETAILED ANALYSIS

3.2.1 Aesthetics and Visual Resources

Implementing the proposed action would not adversely affect aesthetics and visual resources. The visual environment at SIAD is typical of a military installation and contains no unique or designated scenic views. While implementing the proposed action would alter the visual character of the installation somewhat, primarily by adding new buildings and renovating or improving existing buildings and other infrastructure, the visual character of the installation would remain consistent with existing aesthetics and visual conditions. The proposed projects would conform to the RPMP's Installation Planning Standards, which include standards for buildings, streets, and landscaping that would promote a harmonious visual environment. Because the proposed action would not affect aesthetics and visual resources, this resource area was not carried forward for detailed analysis in the EA.

3.2.2 Land Use

Implementing the proposed action would not adversely affect land use. The proposed projects involve infrastructure improvements and construction, demolition, restoration, and modernization of buildings. The projects would be implemented completely within the installation boundaries and in the SIAD Storage and Warehouse districts and would be consistent with the Storage and Warehouse District ADPs and current land-use classifications. Through the master planning process to develop the ADPs, SIAD selected the proposed projects and project sites in accordance with established land uses. The proposed new building construction and demolition, modernization, and renovation of the interior and exterior of existing buildings, with the

associated utility infrastructure, roadway, and hardstand improvements, would not change land use or conflict with surrounding land use, and would have no adverse effects on existing land uses. Because the proposed action would have no effect on land use, this resource area was not carried forward for detailed analysis in the EA.

3.2.3 Noise

The proposed action would have short-term negligible adverse effects and no long-term effects on the noise environment. SIAD's primary noise-generating activities are vehicle traffic, warehousing activities, and airfield operations. No noise-sensitive receptors exist on or immediately adjacent to the Storage or Warehouse districts, and most areas immediately surrounding SIAD are undeveloped. The city of Herlong is adjacent to SIAD to the south and southwest of the cantonment area, and includes a school, church, and housing developments; those noise-sensitive receptors are approximately one-half mile from the nearest point in the Storage or Warehouse districts.

The proposed construction projects would require use of heavy equipment that would generate short-term increases in noise near the project sites. All construction activities would occur within the installation's property boundary and co-located with other existing noise-compatible activities. Although the effects of construction-related noise would be minor, construction crews would implement the following best management practices (BMPs) to further reduce those effects:

- Heavy equipment use would primarily occur during normal weekday business hours.
- Heavy equipment mufflers would be properly maintained and in good working order.
- Personnel, particularly equipment operators, would don adequate personal hearing protection to limit occupational exposure to elevated noise levels and ensure compliance with federal health and safety regulations.

Implementing the proposed projects would not change overall noise levels at SIAD. In the final design stages, all facilities and operational equipment would be designed and constructed so as not to generate intrusive noise beyond the property boundary. No changes would occur in military training activities, use of weaponry, or demolitions training. Therefore, no long-term changes in the noise environment would occur. Because short-term adverse effects on the noise environment would be negligible and no long-term effects would result, noise was not carried forward for detailed analysis in the EA.

3.2.4 Socioeconomics, including Environmental Justice and Protection of Children

Implementing the proposed action would not adversely affect socioeconomics, environmental justice, or the protection of children. It would have short-term negligible beneficial effects on the regional economy from construction expenditures for purchasing project materials and supplies, hiring people in construction-related industries, wages earned by those workers, and expenditure of their wages for goods and services. Such economic benefits would be short term because of the temporary nature of construction projects and would be expected to be negligible because the number of jobs created by the construction work would likely be small relative to the regional labor force. **Table 3** lists socioeconomic data for the county in the study

area as well as for the state and the nation. The proposed action would cause no perceptible change in population as few new military or civilian personnel would be stationed at SIAD as an outcome of the proposed action. As a result, socioeconomics was not carried forward for detailed analysis in the EA.

Table 3. Socioeconomic Data for SIAD

Area	Per capita income (2017)	Labor force (2018)	Population (2018)	Minority population	Persons in poverty
Lassen County, CA	$20,974	9,899	30,802	35%	16%
California	$33,128	19,398,212	39,557,045	63%	13%
United States	$31,177	162,075,000	327,167,434	40%	12%

Sources: BLS 2019, U.S. Census Bureau 2019.

EO 12898, signed by President Clinton February 11, 1994, requires each federal agency to identify and address any disproportionately high and adverse human health or environmental effects its programs and policies might have on minority or low-income populations.

SIAD developed the threshold used for identifying minority and low-income populations consistent with CEQ guidance for identifying minority populations using either the 50 percent threshold or another percentage deemed “meaningfully greater” than the percentage of minority or low-income individuals in the general population (CEQ 1997). CEQ guidance does not provide a numerical definition of the term “meaningfully greater.” For this analysis, the significance thresholds for environmental justice concerns were established at the state level. A county in the study area is determined to contain a meaningfully greater percentage of minority or low-income individuals if that percentage exceeds the state’s percentage of minority or low-income persons by 20 percentage points or more, or if that percentage exceeds 50 percent of the population. Lassen County does not have a percentage of minority or low-income persons that exceeds the state averages by 20 percent, nor do they exceed 50 percent (**Table 3**).

EO 13045, issued by President Clinton April 21, 1997, requires federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. No children reside at SIAD, although they sometimes visit the depot. The safety of children on the depot is ensured by the Army’s standard safety measures, including restricting access to construction sites and other unsafe areas, and requiring adult supervision.

The proposed action would not be expected to result in disproportionate adverse human health or environmental effects or safety risks on low-income or minority populations or children. The proposed action involves construction, renovation, and demolition projects within the SIAD Storage and Warehouse districts. The proposed projects do not have the potential to affect human health or the environment substantially adversely by excluding anyone, denying anyone’s benefits, or subjecting anyone to discrimination or by exposing anyone to disproportionately high and adverse environmental health or safety risks. As a result, environmental justice and protection of children were not carried forward for detailed analysis in the EA.

3.3 AIR QUALITY

3.3.1 Affected Environment

Air pollution is the presence in the outdoor atmosphere of one or more contaminants (e.g., dust, fumes, gas, mist, odor, smoke, or vapor) in quantities and of characteristics and duration so as to be injurious to human, plant, or animal life or to interfere unreasonably with the comfortable enjoyment of life and property.

The CAA assigns the U.S. Environmental Protection Agency (EPA) responsibility for establishing the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) that specify acceptable concentration levels of six criteria pollutants: particulate matter (PM) (measured as both PM less than 10 microns in diameter [PM_{10}] and PM less than 2.5 microns in diameter [$PM_{2.5}$]), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide, ozone, and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. California has established state standards somewhat stricter than the federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment areas* and AQCRs with levels below the NAAQS as *attainment areas*. SIAD is in Lassen County, which is in the Northeast Plateau Intrastate AQCR (40 CFR 81.162). EPA has designated Lassen County as in full attainment for all criteria pollutants (EPA 2019). Because all areas associated with the proposed action are in attainment, the General Conformity rule does not apply. The General Conformity rule was established with NEPA in mind, and it is understood that actions of this size within an EPA-designated attainment area would have less than significant effects on air quality. Appendix A provides a record of non-applicability to the General Conformity rule.

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere, thereby contributing to the greenhouse effect and climate change. Many GHGs occur naturally in the atmosphere, but human activities such as burning fossil fuels also release GHGs. The primary GHGs are carbon dioxide, methane, nitrous oxide, and fluorinated gases (EPA 2018).

To address potential effects of climate change, EO 13990, signed by President Biden January 20, 2021, it is the policy of the United States that agencies shall meet such statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment. In implementing this policy, each agency shall prioritize actions that reduce waste, cut costs, enhance the resilience of Federal infrastructure and operations, and enable more effective accomplishment of its mission.

3.3.2 Environmental Consequences

3.3.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on air quality if it would (1) produce emissions that exceed the General Conformity rule *de minimis* (of minimal

importance) threshold values or (2) contribute to a violation of any federal, state, or local air regulation.

3.3.2.2 Proposed Action

Implementing the proposed action would result in short- and long-term minor adverse effects on air quality. Effects would be caused by emissions from construction equipment and trucks; fugitive dust emissions from ground disturbance during construction; and the addition of any new stationary sources of air emissions such as generators, boilers, and paint booths. Emissions from implementing the proposed action would not exceed the General Conformity rule *de minimis* threshold values or contribute to a violation of a federal, state, or local air regulation.

General Conformity

All Phase 1 and 2 projects are in Lassen County, which EPA has designated as being in attainment for the NAAQS. Although the area is in attainment and the General Conformity rule does not apply, the total direct and indirect emissions that would result from the proposed action have been calculated and compared to the *de minimis* thresholds to determine the level of effects under NEPA.

Table 4 lists total direct and indirect emissions resulting from all the Phase 1 and 2 projects combined. Construction emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gases. Operational emissions were estimated for the estimated increase in heated space and new sources of air emissions such as backup generators and paint booths. Total combined emissions would be well below the *de minimis* threshold; therefore, the level of effects would be less than significant. A detailed emissions report is included in the Administrative Record of the EA.

Table 4. Annual Air Emissions Compared to *De Minimis* Thresholds

Criterion	Tons per year					
	CO	NO_x	VOC	SO_2	PM_{10}	$PM_{2.5}$
Construction	5.7	6.0	1.0	<0.1	27.8	0.3
Operations	4.5	5.4	3.5	0.1	0.4	0.4
De minimis threshold [tons per year]	100	100	100	100	100	100
Exceeds *de minimis* threshold [Yes/No]	No	No	No	No	No	No

Sources: USAF 2019 40 CFR 93.153.
Notes: NO_x = oxides of nitrogen; VOC = volatile organic compound.

For purposes of this analysis, SIAD assumed that all building construction activities would be conducted in a single 12-month period and all hardstand clearing and paving would be spread evenly over 7 years; therefore, moderate changes in the implementation schedule, the size or type of equipment ultimately selected, or the number of personnel would not substantially change the total direct or indirect emissions, the determination under the General Conformity rule, or the level of impact under NEPA. Notably, emissions would be below the *de minimis* thresholds for all criteria pollutants; therefore, the General Conformity rule would not apply regardless of any changes in the attainment status of the AQCR for any criteria pollutant.

Air Permitting and Regulatory Review

Any new stationary sources of air emissions would fully comply with applicable federal, state, and local permitting requirements. Permitting scenarios would vary based on the final design and the timing of the projects. During the permitting process, however, either (1) the actual equipment, controls, or operating limitations for new sources of air emissions would be selected to reduce emissions below the major modification threshold, or (2) the permitting process would ensure that the NAAQS are not exceeded. Either of these scenarios would ensure the proposed projects, both individually and collectively, would not interfere with the ability of the state to maintain air quality in accordance with the NAAQS. This permitting approach is inherent to federal and state air regulations and leads to a forced preservation of clean air in attainment AQCRs. Therefore, regardless of the ultimate permitting scenario, effects would be less than significant.

In addition, the rules and regulations of the Lassen County Air Pollution Control District outline other nonpermitting requirements such as controlling fugitive dust and open burning. To comply with these rules, anyone responsible for any operation, process, handling, transportation, or storage facility that could cause fugitive dust must take reasonable precautions to prevent the dust from becoming airborne. Reasonable precautions might include using water to control dust from road grading or land clearing. The proposed projects would proceed in full compliance with current federal, state, and local requirements with compliant practices and/or products. This list of BMPs to control fugitive dust is not all-inclusive; the Army and any contractors would comply with all applicable air pollution control regulations.

Greenhouse Gases and Climate Change

This EA examines GHGs as a category of air emissions. It also looks at temperature and precipitation trends to determine whether the affected environment or the proposed projects would be affected by climate change. Because of the lack of consensus on how to measure actual incremental impacts of GHG emissions from the proposed projects, this EA does not attempt to measure those impacts. Existing climate models have substantial variation in output and are not capable of measuring the actual incremental impacts of a project on the environment. There are also no established criteria identifying monetized values that are to be considered significant for NEPA purposes. **Table 5** presents the estimated GHG emissions from the proposed action as well as global, nationwide, and statewide GHG emissions and the change in global, nationwide, and statewide GHG emissions that would result from implementing the proposed action. The estimated increase would be minute.

Table 5. Global, Countrywide, and Statewide GHG Emissions

Scale	GHG emissions (million metric tons of carbon dioxide equivalent)	Change from implementing the proposed action (percent)
Proposed Action	0.0057	-
California	363	0.0016
United States	6,870	0.000084
Global	43,125	0.000013

Sources: USAF 2019; USEIA 2016.

Table 6 outlines potential climate stressors and their effects on the proposed action. The proposed projects in and of themselves are only indirectly dependent on any of the elements associated with future climate scenarios (e.g., meteorological changes). At this time, no future climate scenario or potential climate stressor would have appreciable effects on any element of the proposed action.

Table 6. Effects of Potential Climate Stressors

Potential climate stressor	Effects on the proposed action
More frequent and intense heat waves	Negligible
Longer fire seasons and more severe wildfires	Negligible
Changes in precipitation patterns	Negligible
Increased drought	Negligible
Harm to water resources, agriculture, wildlife, ecosystems	Negligible

Source: GlobalChange.gov 2016.

3.3.2.3 No Action Alternative

No effects on air quality would be expected. Under the No Action Alternative, SIAD would not implement the proposed projects and no change in emissions levels would occur on the installation.

3.4 BIOLOGICAL RESOURCES

3.4.1 Affected Environment

3.4.1.1 Vegetation Communities and Common Plant Species

The undeveloped areas at SIAD have been categorized into two main vegetation community types: shrubland and grassland. There are four shrubland communities, which are named for their dominant plant species: big sagebrush (*Artemisia tridentata*), greasewood (*Sarcobatus vermiculatus*), shadscale (*Atriplex confertifolia*), and rubber rabbitbrush (*Ericameria nauseosa*). The big sagebrush community comprises the majority of acreage at SIAD, with over 11,000 acres, most of which is in the southern portion of SIAD's main parcel. Greasewood and shadscale communities have similar coverages of 7,871 acres and 7,255 acres, respectively,

and are found mostly in the northern half of the main parcel. Rubber rabbitbrush scrub has a fraction of that coverage at 357 acres (Tetra Tech 2018a).

There are two grassland communities at SIAD, also named for their dominant plant species: cheatgrass (*Bromus tectorum*) and salt grass (*Distichlis spicata*) (Tetra Tech 2018a). During a planning level survey (PLS) of vegetation communities conducted in 2017, surveyors found cheatgrass grassland to be the most common grassland vegetation community on the installation at 1,550 acres. It typically occupied previously cleared or disturbed areas. Salt grass flats occupied only 25 acres at the far western edge of SIAD (Tetra Tech 2018a).

SIAD's cantonment area contains trees that were planted to enhance the landscaping. Trees in the cantonment area include bishop pine *(Pinus mericata),* black cottonwood *(Populus nigra), Russian olive* (*Elaeagnus angustifolia*), Siberian elm *(Ulmus pumila),* juniper (*Juniperus sp.*), Sierra juniper (*Juniperus occidentalis*), spruce *(Picea sp.),* and western sycamore *(Platanus racemosa)*.

3.4.1.2 Nonnative, Invasive, and/or Noxious Plants

Twenty-four nonnative, invasive, and/or noxious plant species were observed at SIAD during the 2017 PLS (Tetra Tech 2018b). Eleven of those species are on California's noxious weed list (CDFA 2019). Two of the species—cheatgrass and tall whitetop (*Lepidium latifolium*)—also have a rating of *high* from the California Invasive Plant Council (Cal-IPC), which rates the potential impact of invasive species on native ecosystems in California. Species Cal-IPC rates as *high* can have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate-to-high rates of dispersal and establishment.

The remaining nine plant species on California's noxious weed list have a Cal-IPC rating of *moderate* or *limited* (Cal-IPC 2019). Species rated as *moderate* have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Species rated as *limited* are invasive, but their ecological impacts are minor on a statewide level or not enough information was available to justify a higher rating.

Cheatgrass is the most abundant of the nonnative species at SIAD (Tetra Tech 2017), found near road margins, around the airstrip, and in areas previously cleared or mowed and prevalent where salt grass is found. Cheatgrass can outcompete and displace native vegetation, result in increased frequency and extent of wildfires, and reduce over time the presence of salt grass and other native species at SIAD (Cal-IPC 2019).

Tall whitetop (the other high-rated invasive) is an erect, noxious perennial growing up to 6 feet tall, with white flowers and extensively creeping roots. This species, which is native to Eurasia, grows in disturbed areas, wet areas, roadsides, and croplands. During an invasive species survey conducted in 2003, several populations of tall whitetop were found on the southeastern portion of SIAD, generally near or along roadcuts (Tetra Tech 2003).

Because of the limited amount of precipitation at SIAD, revegetation of disturbed areas occurs slowly. Unless disturbed areas are actively revegetated with native species, either fast-growing invasive species such as cheatgrass can dominate the areas or they remain bare and subject to erosion.

3.4.1.3 Mammals

Twenty-five mammal species were observed on SIAD during a PLS conducted in 2002 (Tetra Tech 2018a), and the results of older surveys indicate that about 80 mammal species are known to occur at SIAD. Common mammal species on SIAD are mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus auduboni*), black-tailed jackrabbit (*Lepus californicus*), long-tailed pocket mouse (*Chaetodipus formosus*), kangaroo rat *(Dipodomys* sp.), and ground squirrel (*Spermophilus lateralis*).

Pronghorn antelope can be seen in shrubland habitat in multiple locations on SIAD's main parcel. Wintering deer and antelope migrate through the depot in the spring and fall (Tetra Tech 2018b). Kangaroo rats, black-tailed jackrabbits, and cottontail rabbits are abundant throughout the main parcel, particularly in sagebrush shrubland in the southwestern portion of the main parcel. Ground squirrels are primarily observed in the cantonment area.

Four species of bats have been observed on SIAD: big brown bat (*Eptesicus fuscus*), Yuma myotis (*Myotis yumanensis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*) (Tetra Tech 2002). A maternity roost of Yuma myotis was found in one building in a 2002 survey.

3.4.1.4 Birds

More than 200 bird species have been observed on SIAD (Tetra Tech 2018b). SIAD is along a major western flyway migration route for migratory waterfowl, and numerous species of waterfowl have been recorded at the SIAD water treatment ponds, including the American coot (*Fulica americana*), redhead (*Aythya americana*), grebe (*Podicipedidae* family), mallard (*Anas platyrhynchos*), northern pintail (*Anas acute*), and northern shoveler (*Anas clypeata*) (Tetra Tech 2018b).

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) have been observed on or near SIAD, but there are no known nesting or roosting sites on the depot. Both species are protected under the BGEPA and MBTA (Tetra Tech 2018b).

Habitat quality for birds on SIAD is low to medium overall except for in the shrublands, where habitat quality is high. Migratory bird species that have been observed in shrublands include sage sparrow (*Amphispiza belli*), golden eagle, house finch (*Carpodacus mexicanus*), killdeer (*Charadrius vociferus*), northern harrier (*Circus cyaneus*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), prairie falcon (*Falco mexicanus*), American kestrel (*Falco sparverius*), loggerhead shrike (*Lanius ludovicianus*), savannah sparrow (*Passerculus sandwichensis*), blue-gray gnatcatcher (*Polioptila caerulea*), Say's phoebe (*Sayornis saya*), western meadowlark (*Sturnella neglecta*), American robin (*Turdus migratorius*),

mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*) (Tetra Tech 2018b).

High-quality microhabitats also occur at SIAD, such as the cantonment area where large ornamental trees such as Siberian elm and Western sycamore are suitable for perching and nesting. Raptor species observed in the cantonment area include Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensus*), long-eared owl (*Asio otus*), great horned owl (*Bubo virginianus*), and barn owl (*Tyto alba*). Many other birds have also been observed in the cantonment area, including the common raven *(Corvus corax)* and black-billed magpie (*Pica hudsonia*). Perching and nesting locations outside the cantonment area are electric poles and fences. Raptor nests have been observed on many electric poles (Tetra Tech 2018b).

3.4.1.5 Reptiles and Amphibians

Twenty-two reptile and nine amphibian species are known to occur on SIAD (Tetra Tech 2018a). Common reptiles on SIAD include the leopard lizard (*Crotaphytus wislizeni*), Great Basin gopher snake (*Pituophus catenifer*), long-nosed leopard lizard (*Gambelia wislizenii*), desert horned lizard (*Phrynosoma platyrhinos*), and Great Basin fence lizard (*Sceloporus occidentalis biseriatus*). The Pacific chorus frog (*Pseudacris regilla*) and western toad (*Bufo boreas*) are common amphibian species on SIAD (Tetra Tech 2018a, b).

3.4.1.6 Species Listed under the ESA

No federally listed threatened or endangered (T&E) species have been documented at SIAD (USFWS 2020), nor is there any critical habitat for T&E species.

Three federally listed plant species, all of which are flowering plants, are known to occur in Lassen County: Greene's tuctoria (*Tuctoria greenei*), (endangered); slender orcutt grass (*Orcuttia tenuis*), (threatened); and Webber's ivesia (*Ivesia webberi*), (threatened) (USFWS 2020). Eight federally listed fauna species are known to occur in Lassen County (USFWS 2020). The species include frogs, a fairy shrimp, a crayfish, two species of fish, a bird (the yellow-billed cuckoo [*Coccyzus americanus*]), and an insect (Carson wandering skipper [*Panoquina errans*]) (USFWS ECOS 2019).

None of these plant or animal species has been observed at SIAD. The Carson wandering skipper is known to occur near Honey Lake, and a survey for that species was conducted on SIAD in 2017. The species was not observed, and the PLS report noted that habitat areas on SIAD are small and their nectar sources are insufficient to support the species (Tetra Tech 2018a).

3.4.1.7 Migratory Birds

The current list of birds protected under the MBTA is found in the *Federal Register* in November 2013 (78 FR 65844, November 1, 2013). The U.S. Fish and Wildlife Service (USFWS) lists 11 species of migratory birds as being of concern in the SIAD region, either because they are on the USFWS Birds of Conservation Concern list or warrant special attention in the region (USFWS 2020). Three of the species are not present in the SIAD region during their breeding season and another four species have never been observed on SIAD, probably because of a

lack of suitable habitat. The remaining four species of migratory birds of potential concern on SIAD are the bald eagle, golden eagle, Brewer's sparrow (*Spizella breweri*), and sage thrasher (*Oreoscoptes montanus*). There is suitable foraging and breeding habitat at SIAD to support these species, but they have not been observed nesting or roosting during protected seasons. Bald eagles and golden eagles have been observed at SIAD but might have been nesting or roosting off-site.

Golden eagles could be present on SIAD during their breeding season in the months of December, March, and April because suitable foraging habitat is present. The sagebrush-dominated landscape of SIAD is appealing to Brewer's sparrows as breeding habitat; therefore, they could be present during their breeding season in the month of August. The sage thrasher breeds exclusively in shrub-steppe habitats, so the species could potentially be present at SIAD during its breeding season in the months of April, June, July, and August (USFWS 2020).

The U.S. Department of Agriculture has completed a migratory bird survey on SIAD and is developing a bird aircraft strike hazard (BASH) plan for Amedee Army Airfield (Tetra Tech 2018b). The effort consisted of 2–3 surveys per month, including night surveys, at defined locations near the airfield. SIAD's Environmental Division will update the bird species list as applicable and implement the recommendations of the BASH plan to protect migratory birds in accordance with MBTA.

3.4.2 Environmental Consequences

3.4.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on biological resources if it would (1) result in an unpermitted take of a species listed under the ESA, MBTA, or BGEPA or (2) adversely modify designated critical habitat for listed species.

3.4.2.2 Proposed Action

Implementing the proposed action would result in short- and long-term minor adverse and long-term minor beneficial effects on biological resources. No species listed under the ESA are known to occur on SIAD and no designated critical habitat is on SIAD.

Construction would require vegetation removal; however, the proposed projects in the Storage and Warehouse District ADPs would all occur in areas with relatively low biological value and integrity. The proposed projects with estimated acreages would involve the following estimated vegetation removal:

- Storage district: approximately 127 acres of cheatgrass grassland (a dominant invasive plant community), 60 acres of shadscale shrub, and 91 acres of big sagebrush habitats
- Warehouse district: approximately 10 acres of big sagebrush habitats.

Most of these areas would be converted to new hardstands and roads, so vegetation would not be reestablished. Because these areas would be surfaced so as not to support vegetation, it is unlikely nonnative or invasive species would establish here; however, such species could establish in disturbed areas at the margins of these sites. To minimize the potential for this, after

construction, any remaining bare areas would be reseeded or revegetated with native species or nonvegetative cover would be installed.

The removal of big sagebrush and shadscale scrub vegetation would reduce available habitat for the many species of migratory birds and other non-protected species that use these vegetation communities. However, because vegetation removal would affect less than 1 percent of the 11,125 acres of big sagebrush and less than 1 percent of the 7,255 acres of shadscale scrub habitat on SIAD, the long-term adverse effects would be minor.

SIAD would comply with the MBTA and BGEPA. To do so, SIAD would attempt to avoid vegetation removal during times birds protected by these laws could be nesting in those areas. If it was necessary to remove vegetation during times that protected birds could be nesting there, a survey would be conducted prior to vegetation removal, including areas where noise from construction could result in a take of nesting migratory birds. Any active nests, including an appropriate buffer around them, would be avoided until the young have fledged. Therefore, implementing the proposed action would not result in the unpermitted take of a protected bird species.

The conversion of approximately 127 acres of cheatgrass habitat would result in a minor, long-term beneficial impact since it would reduce the presence of cheatgrass at SIAD.

3.4.2.3 No Action Alternative

No effects on biological resources would be expected. Under the No Action Alternative, the Army would not implement the proposed projects and no impacts to biological resources would occur.

3.5 CULTURAL RESOURCES

3.5.1 Affected Environment

Cultural resources are physical manifestations of culture, specifically archaeological sites, architectural properties, ethnographic resources, and other historical resources relating to human activities, society, and cultural institutions that define communities and link them to their surroundings. They include expressions of human culture and history in the physical environment such as prehistoric and historic archaeological sites, buildings, structures, objects, and districts. The National Register of Historic Places (NRHP) is a listing maintained by the federal government of prehistoric, historic, and ethnographic buildings, structures, sites, districts, and objects that are considered significant at a national, state, or local level. Cultural resources listed on the NRHP, or determined to be eligible for listing, are documented and evaluated according to uniform standards found in 36 CFR 60.4, and, regardless of age, are called *historic properties*.

3.5.1.1 SIAD Management of Cultural Resources

A number of federal laws, regulations, and EOs address cultural resources and federal responsibilities toward them and are applicable to SIAD. Foremost among these statutory provisions, and most relevant to the current analysis, is the NHPA. Section 106 of the NHPA

and its implementing regulations at 36 CFR Part 800 require federal agencies to consider the effects of their undertakings on historic properties and to consult to find ways to avoid, minimize, or mitigate any adverse effects. As part of the section 106 process, agencies are required to consult with the State Historic Preservation Officer (SHPO) on their determinations and decisions. In California, the SHPO directs the Office of Historic Preservation. SIAD manages their cultural resources under the Integrated Cultural Resources Management Plan (ICRMP) (New South Associates 2013), which is currently being updated.

3.5.1.2 Resources at SIAD

According to the ICRMP (New South Associates 2013), SIAD has no historic objects, structures, districts, or landscapes. It also has no known cemeteries, traditional cultural properties, or Native American sacred areas. Archaeological inventories conducted of various portions of the facility have resulted in the identification and recording of 42 archaeological sites, of which 10 are considered eligible for listing on the NRHP, 27 are considered ineligible, and 5 are undetermined (New South Associates 2013). SIAD recently conducted a Phase I inventory for archaeological resources on 6,000 acres of the Storage and Warehouse districts (Garcia and Associates 2019). This effort documented 26 newly identified archaeological sites and updated two previously known sites. One of the previously known sites is considered eligible for listing on the NRHP; the other previously identified site and two of the newly identified sites will undergo Phase II archaeological testing to determine if they are eligible.

The Advisory Council on Historic Preservation has issued a Program Comment regarding ammunition storage facilities associated with World War II and the Cold War that precludes the need for additional consultation regarding the NRHP eligibility of these properties. That exemption applies to most of the properties located in SIAD's Storage District. An inventory of 314 architectural properties at SIAD has been conducted (New South Associates 2015), resulting in a recommendation that none of the buildings are eligible for listing on the NRHP. At this time, SIAD has not consulted with the California SHPO regarding determinations of eligibility of the identified and documented archaeological and architectural resources.

3.5.1.3 Ongoing Consultation

Pursuant to the NHPA and NEPA, SIAD sent the California SHPO a consultation package July 2020 notifying them of the proposed action during the preparation of this EA. No comments were received in response to the consultation request. In addition, SIAD will consult with the SHPO and any interested parties regarding determinations of eligibility and effect as part of compliance with section 106 and 36 CFR Part 800 for the activities specified in the proposed action.

3.5.2 Environmental Consequences

3.5.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on cultural resources if it would (1) alter the integrity of an historic property listed or eligible for listing on the NRHP so it is no longer eligible for listing, (2) physically impact a unique archaeological resource listed or

eligible for listing on the NRHP, or (3) alter the integrity of a traditional cultural property listed or eligible for listing on the NRHP.

3.5.2.2 Proposed Action

Implementing the proposed action would have no effects on cultural resources.

Archaeological Assessment

The proposed action would include ground disturbance caused by construction of new buildings and hardstands, road work/paving, and utility upgrades. Ground disturbance can result in direct physical impacts on archaeological properties located at the disturbance location or indirect impacts from erosion or inadvertent damage to archaeological properties located nearby. Much of the area within the Storage and Warehouse districts where ADP projects would occur was recently archaeologically surveyed (Garcia and Associates 2019). Only four archaeological sites eligible or potentially eligible for listing on the NRHP are located within that surveyed area. Three of the sites (site numbers CA-LAS-1734/H, CA-LAS-1954/H, and BB-16) are not located near any of the proposed short- or mid-range projects and are not anticipated to be affected.

The fourth site, site number BB-15, is located near building 543, which is slated for internal upgrades and maintenance. The site is currently undergoing Phase II testing to determine if it is eligible. It would be at risk for inadvertent damage from the increased construction activity in that area. If the site is found to be eligible, however, SIAD would institute protective measures, including educating workers on areas they can and cannot access and installing site fencing to ensure no damage occurs. With these measures in place, SIAD expects that the site would not be damaged.

Projects are proposed in two areas not previously surveyed for archaeological resources. The first area is where the TS Sites road construction, North Railroad hardstands construction, and buildings 583, 593, and 599 are located; and the second area includes the central and southern portions of the Warehouse District. Previous construction and operations have heavily impacted both areas and no intact archaeological deposits are expected to be found. Any unanticipated discoveries of archaeological deposits during ground-disturbing activities would be treated in accordance with the SIAD ICRMP (New South Associates 2013).

Architectural Assessment

The proposed action would also include building renovations, which can impact buildings eligible for the NRHP through modifications to their physical features, design, and materials. The buildings under this alternative have the following statuses (New South Associates 2013, 2015):

- Exempt from consultation under the Program Comment for ammunition storage facilities—buildings 205, 207, 309, 426-430, 435, and 438-443;
- Considered ineligible—buildings 311, 351, 352, 359, 360, 362, 366, 541, 583, 593, and 599; and
- Unevaluated—building 543.

Based on the analysis of 341 buildings at SIAD, it is likely that building 543 is also ineligible. Thus, it is expected that proposed building renovations would not have an adverse impact on architectural historic properties.

The proposed action also includes demolition of up to 15,000 SF of existing facilities. The subject facilities under this alternative have the following statuses:

- Exempt from consultation under the Program Comment for ammunition storage facilities—buildings 202, 203, 403, 408, 505, 507, 508, and 601–610;
- Considered ineligible—buildings 10, 65, 349, 494, 499, 526, 530, 565, 568, 571, 577, 579, 600, 611-626, 633, and 650–669; and
- Unevaluated—buildings 424, 478, 536, 587, and 680–686.

Based on the analysis of 341 buildings at SIAD, it is likely that the unevaluated buildings are also ineligible because of their similar function, construction materials, design, and age. Thus, it is expected that proposed building demolition would not have an adverse impact on architectural historic properties.

Additional facilities could be identified for demolition. Based on the likelihood that any buildings proposed for demolition are either ineligible for the NRHP or are exempt from consideration under the Program Comment, it is expected that building demolition would not impact any architectural historic properties.

Continued Consultation

Any areas slated for ground disturbance not previously surveyed for archaeological resources would be surveyed or assessed for the presence of archaeological resources prior to any earth-disturbing activities being conducted. In addition, buildings slated for demolition not previously evaluated for NRHP-eligibility would be evaluated. SIAD would consult with the California SHPO and interested parties regarding those identification efforts and the proposed undertaking in general to obtain concurrence on determinations of eligibility and effect as part of compliance with NHPA section 106 and 36 CFR Part 800.

At this time, no adverse impacts to historic and cultural properties are anticipated as a result of implementing the proposed action with implementation of the measures described above for site BB-15, unanticipated discoveries of archaeological deposits, areas slated for ground disturbance not previously surveyed, and buildings slated for renovation or demolition not previously evaluated for NRHP-eligibility. If potential adverse impacts are identified during consultation conducted for the NHPA section 106 compliance process, any necessary mitigation measures would be developed and memorialized in a memorandum of agreement between SIAD, California SHPO, and the interested parties. These mitigation measures would resolve the impact of the undertaking to the historic properties, thereby reducing the magnitude of the impact to a less-than-significant level.

3.5.2.3 No Action Alternative

No effects on cultural resources would be expected. Under the No Action Alternative, SIAD would not implement the proposed action and no impacts would occur to historic or cultural resources.

3.6 GEOLOGY AND SOILS

3.6.1 Affected Environment

3.6.1.1 Geologic and Topographic Conditions

SIAD is located in the Honey Lake Valley—one of the valleys of the Basin and Range province, a western region formation characterized by linear mountain ranges and alternating north-south faults (Tetra Tech 2018b). Honey Lake is the valley's dominant feature, with an average surface area of 47,000 acres (DWR 2004). Elevation across SIAD's main parcel ranges from 3,998 to 4,100 feet above sea level, west to east, a change of only 102 feet (Tetra Tech 2018b). The northern boundary of SIAD and SIAD's demolition ground and gravel extraction site are located at the foot of the Amedee Mountains, which are characterized by steep slopes and deep incised canyons.

SIAD and the Honey Lake Valley were once part of ancient Lake Lahontan, which completely covered the current location of SIAD and the surrounding area as recently as 11,700 years ago, at the end of the Pleistocene era. Remnants of the geologic past include vast deposits of loosely consolidated alluvial and lacustrine sediments found across SIAD's main parcel. SIAD's gravel extraction area and demolition ground to the north have geologic remnants of volcanic sediments (Tetra Tech 2018b).

3.6.1.2 Seismic Conditions

Several seismic faults are located in the southern portion of SIAD's main parcel. Several other faults are located outside of, but near, SIAD (CGS 2010). Moderate earthquakes ranging in magnitude from 5.6 to 5.9 on the Richter scale have historically occurred in Honey Lake Valley. The most damaging earthquake that has occurred near SIAD measured 5.6 on the Richter scale and occurred in 1950 in the Fort Sage Mountains, about 20 miles south of the installation. Damage was sustained at SIAD, in the town of Herlong, and farther south in the community of Doyle. A magnitude 5.2 earthquake occurred in 1979 in the southeastern portion of the Honey Lake Valley near Doyle, causing telephone service to be temporarily disrupted, but no substantial damage to structures on SIAD (Woolpert 2009).

3.6.1.3 Soils

The main parcel of SIAD contains 19 different soils, with five soils comprising more than 80 percent of the installation (**Figure 6**). The dominant soils include Epot-Playas complex, Calneva Silt Loam, Lieberman Fine Sandy Loam, Zorravista Sand, and Ardep Sandy Loam. The soil profiles are described as alluvial sediments and deposits remaining from the recession of ancient Lake Lahontan. The Epot-Playas soil complex is the most prevalent soil type within the Storage and Warehouse districts and on the depot as a whole. That complex is naturally hardened and not typically supportive of vegetative cover, a characteristic of being a playa, and is, therefore, less susceptible to erosional processes than other soil types (Tetra Tech 2018b).

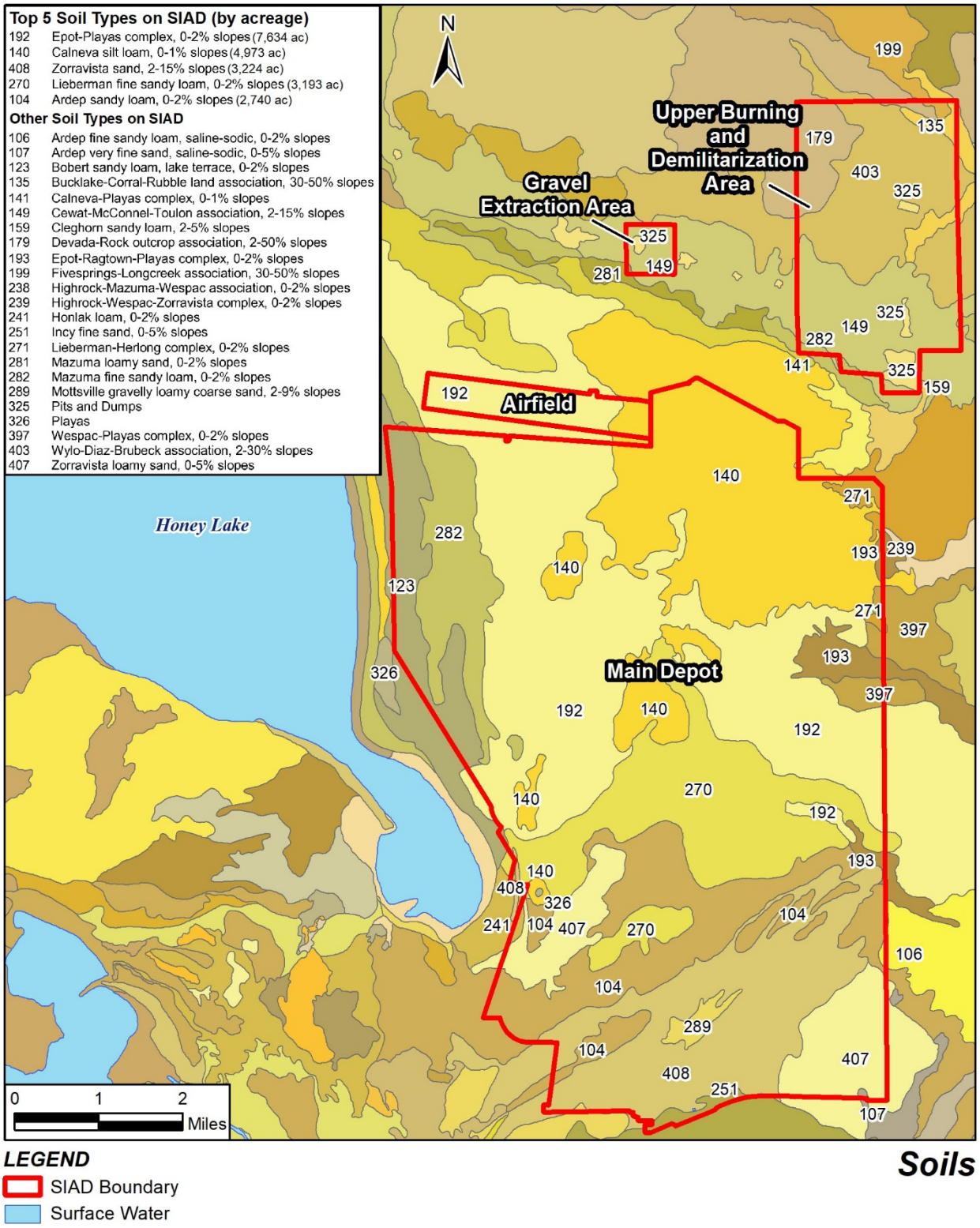


Figure 6

Source: USDA NRCS 2016.

Figure 6. Soils

3.6.2 Environmental Consequences

3.6.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on geology and soils if it would (1) substantially adversely affect unique geologic features, (2) cause substantial changes in topography over a large area, or (3) result in soil erosion that could not be managed with BMPs or reduced to below significant levels with mitigation measures.

3.6.2.2 Proposed Action

Implementing the proposed action would result in short- and long-term minor adverse effects on soils. Short-term minor adverse impacts would result from soil disturbances associated with construction activity and exposure of bare soil. Individual construction and roadway projects would be 2–50 acres in size and would require state-issued individual NPDES construction permits and associated Stormwater Pollution Prevention Plans (SWPPPs) tailored to the site-specific conditions and construction activities and compliance with California's existing NPDES General Permit for Storm Water Discharges Associated with Industrial Activities NPDES No. CAS000001, under which SIAD discharges stormwater. Long-term impacts on soils would be minimized by implementing permanent BMPs in the form of stormwater catchment areas, swales, and ditches that would address runoff from proposed projects and minimize erosion.

SIAD and its contractors would address erosive processes by implementing applicable BMPs specific to each project and site in accordance with a NPDES permit and SWPPP, as required. NPDES No. CAS000001 requires discharges to implement standard BMPs for construction and ground-disturbing activities to prevent off-site soil losses. SIAD's Integrated Natural Resources Management Plan (INRMP) also contains management measures to prevent erosion. SIAD would implement appropriate BMPs from these documents during construction and operation of the proposed action, including the following:

- Seeding/vegetating cleared areas to minimize exposed soils
- Maintaining V-ditches for stormwater movement and erosion control
- Maintaining tree windbreaks
- Limiting off-road traffic in vegetated areas

Therefore, short- and long-term adverse impacts on soils would be minor.

No impacts on geologic features or seismic faults would result from implementing the proposed action. Building construction and renovation completed under the proposed action would adhere to the California building code as it relates to seismic activity and earthquake safety.

3.6.2.3 No Action Alternative

No effects on geology or soils would be expected. Under the No Action Alternative, SIAD would not implement the proposed development projects and no changes to geologic or soil resources would occur on SIAD.

3.7 HAZARDOUS AND TOXIC MATERIALS

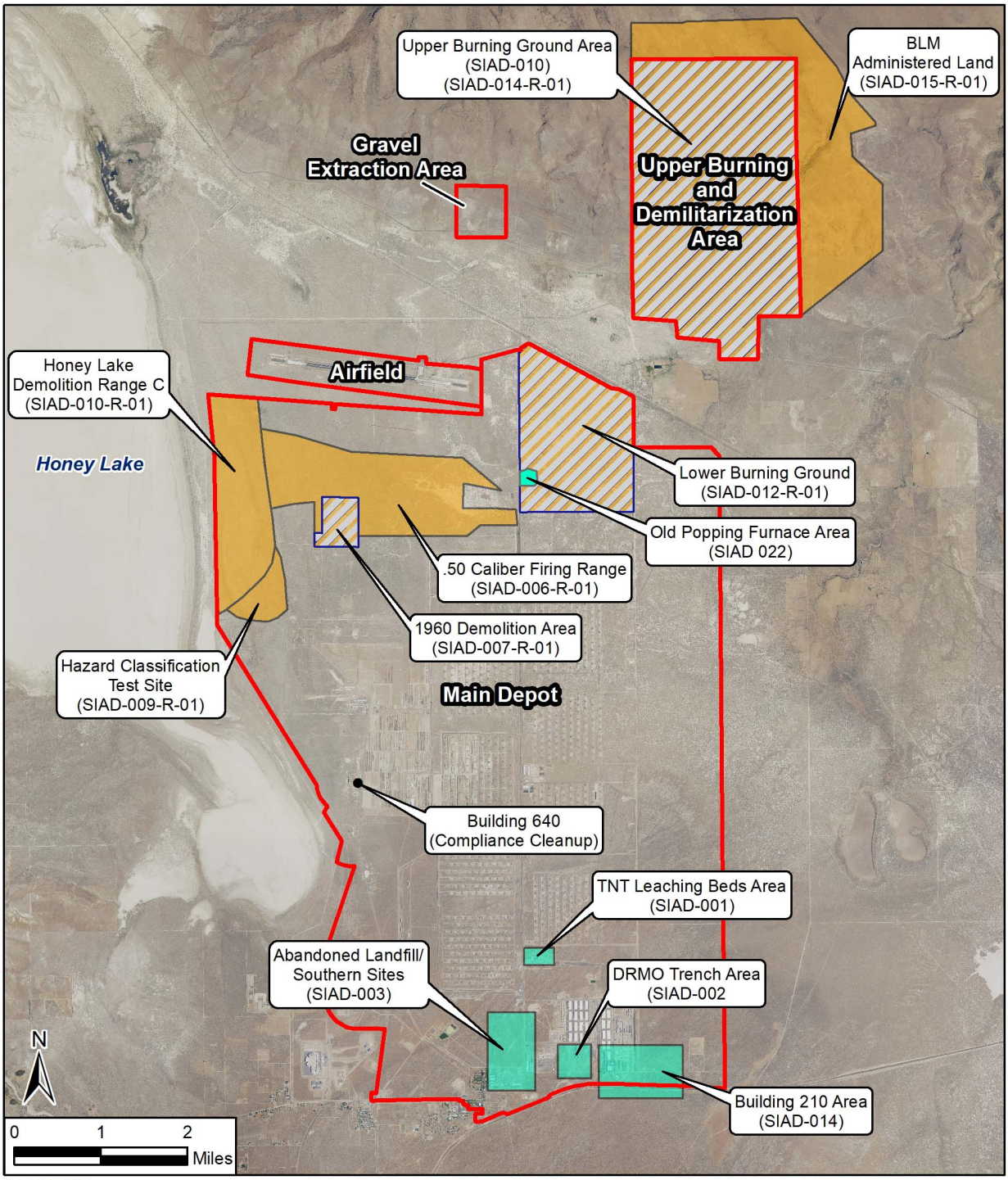
3.7.1 Affected Environment

SIAD uses and manages hazardous materials and manages hazardous waste in compliance with federal, state, and local laws and regulations. A majority of the hazardous chemicals stored at the depot, including pesticides, cleaners, paints, bleaches, and photographic chemicals, occur in small quantities. Hazardous and other regulated wastes are generated from a wide variety of activities, including vehicle maintenance and equipment repair. Hazardous wastes are collected from designated hazardous waste storage areas and disposed of off-depot at an appropriately permitted disposal facility. In its efforts to effectively manage hazardous and toxic materials at the depot, SIAD implements a Spill Prevention, Control, and Countermeasure Plan to respond to emergencies and spills (Tetra Tech 2018b).

Past activities at SIAD have resulted in areas of contaminated soil and groundwater. Those areas are being remediated and managed in accordance with applicable laws, ordinances, and regulations, with regulatory oversight by the California Department of Toxic Substances Control. Remediation is ongoing at some sites while no further action is necessary at others. There are several Installation Restoration Program (IRP) sites in the Warehouse and Storage districts (see **Figure 7**). Of these, only the building 210 area (SIAD-014) IRP and the Abandoned Landfill/Southern Sites (SIAD-003) are located where projects are proposed.

The building 210 area (SIAD-014) is in the portion of the Warehouse District that is proposed to include new construction or renovation of existing facilities. It is located on the southeast corner of the depot and includes the area surrounding the maintenance shops and industrial buildings 201, 202, 206, 207, 208, 209, 210, 211, and 227. In 1995, a remedial investigation was completed that indicated trichloroethane contamination up to 1,800 parts per billion in groundwater had migrated off-post to the south. Land-use controls (LUCs) for the building 210 area state that use of and exposure to groundwater and contaminated soil should be prohibited and that 5-year reviews should continue until groundwater monitoring results demonstrate that volatile organic compound (VOC) concentrations have been reduced to levels that allow for unlimited use/unrestricted exposure (USACE, Sacramento District 2016).

The Abandoned Landfill/Southern Sites (SIAD-003) is in the portion of the Warehouse District where some Phase 1 and 2 projects are proposed. The remedial investigation of the area began in 1990 for contamination of the groundwater with trichloroethane and petroleum hydrocarbons. The soil remedy of hot spot removal and off-site disposal for the Equipment Yard was completed in 2006. The LUCs for this site prohibit the use of groundwater for consumption or domestic purposes, restrict drinking water well installation, restrict withdrawal or use of groundwater for agricultural/irrigation purposes, and restrict withdrawal or use of groundwater without treatment. Institutional controls include dig permits and restrictions on land use that would conflict with these LUCs (USACE Sacramento District 2016).



Source: NAIP 2016.

Figure 7. Restoration Sites in the Storage and Warehouse Districts

3.7.2 Environmental Consequences

3.7.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on hazardous and toxic materials if it would (1) substantially increase risks to human health or the environment (e.g., from spills or other exposure) through the improper management of hazardous and toxic materials and waste or (2) disturb known subsurface contamination or interfere with remedies to address existing subsurface contamination.

3.7.2.2 Proposed Action

Implementing the proposed action would result in short-term minor adverse effects and no long-term effects on hazardous materials/hazardous waste management. Renovation or demolition of structures could expose materials that require special handling such as asbestos-containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs). Affected structures would be surveyed for potentially hazardous building materials prior to disturbance or, in lieu of a survey, be treated as if those materials were present. If any of the materials are found, they would be managed and disposed of in accordance with applicable laws, ordinances, and regulations, including those addressing appropriate worker safety practices.

Several of the proposed projects are in the vicinity of the building 210 IRP site. Most of them would involve interior renovations and improvements that would not involve the potential for worker contact with contaminated groundwater or soils. LUCs would be followed wherever projects involving excavation (e.g., road widening and underground utilities) occur near building 210. Unexpected or accidental exposure of contaminated materials would be appropriately handled and disposed of by the contractor in accordance with applicable requirements under RCRA, CERCLA, and other laws, ordinances, and regulations.

Two of the proposed projects are inside the boundaries of the Abandoned Landfill/Southern Sites (SIAD-003) IRP: a new pre-engineered building warehouse and the Garrison/Department of Public Works Storage warehouse. The institutional controls for the site would ensure that the LUCS would be followed wherever projects involve excavation (i.e., building foundations). The proposed projects would not use groundwater from the area. Unexpected or accidental exposure of contaminated materials would be appropriately managed and those materials would be disposed of by the contractor in accordance with applicable requirements under RCRA, CERCLA, and other laws, ordinances, and regulations.

Implementing the proposed action would not substantially change operational activities involving hazardous and toxic materials and waste. Generating and managing operational hazardous or toxic materials or wastes at SIAD would remain the same as or similar to current operations and would comply with all applicable regulations, plans, and policies. Therefore, there would be no long-term effects.

The expansion of the current hazardous material/hazardous waste storage facility is part of the Phase 3 plan and will undergo project specific NEPA evaluation at an appropriate future date.

3.7.2.3 No Action Alternative

No effects would be expected. SIAD would not implement the proposed development projects and no changes to current hazardous or toxic material or waste generation or management would occur on the depot.

3.8 TRANSPORTATION AND TRAFFIC

3.8.1 Affected Environment

The existing transportation elements at SIAD include improved and semi-improved roads, railways, and the Amedee Airfield. The airfield is not located in the Storage or Warehouse districts. It would not be affected by implementing the proposed action and thus is discussed no further.

SIAD's main parcel has over 200 miles of paved and unpaved roads (Tetra Tech 2018b). They have been classified into three levels of service: primary, secondary, and tertiary. The Storage and Warehouse districts contain all three types of roads. Primary roads are paved and have two lanes (one in each direction) and provide critical circulation into and within the depot's main parcel. Secondary roads are generally paved and tie together main circulation routes. Tertiary roads may be paved or unpaved and provide access to storage areas and structures.

Most traffic enters and leaves SIAD from Highway 395 and County Route A25, which is also known as Susanville Road. SIAD's main gate, or Access Control Point (ACP), is located on County Route A25. This is SIAD's primary entrance for privately owned vehicles. Commercial vehicles and trucks use a secondary gate that provides a less congested route through the depot and access to both the Storage and Warehouse districts that bypasses the cantonment area. A public bus runs during the week from Susanville to the depot twice per day. The route includes several stops on the depot to provide convenient access for workers who commute from Susanville (Osiecki 2020, personal communication).

SIAD has about 60 miles of on-base railroad track that provides access to loading docks and supply warehouses in the Storage and Warehouse districts (Woolpert 2009). SIAD receives assets and materiel via a connection to off-post railways and uses SIAD-owned locomotives to distribute materiel within the depot (Osiecki 2020, personal communication).

3.8.2 Environmental Consequences

3.8.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on transportation if it would (1) substantially increase traffic congestion or delays for an extended period; (2) substantially increase transportation safety hazards resulting from an RPMP project design feature; or (3) overwhelm existing parking capacity.

3.8.2.2 Proposed Action

Implementing the proposed action would result in short-term minor adverse effects and long-term minor-to-moderate beneficial effects on transportation and traffic.

Short-term minor adverse effects on traffic circulation and public transportation would occur during implementation of transportation infrastructure projects such as road widening and ACP improvement. Impacts would result from temporary detours, lane closures, closed access routes, relocated bus stops, and other short-term changes to traffic circulation patterns. SIAD has two ACPs, a well-connected road system, and generally light traffic, so those impacts would result in relatively minor inconveniences and delays that would cease once construction was complete, so adverse impacts would be short term and minor.

Infrastructure improvement projects would also have short-term minor adverse impacts on rail traffic where they intersect a railway. SIAD personnel would proactively coordinate scheduling of construction projects intersecting rail lines, timing of rail transport and deliveries, and routing of rail traffic to avoid areas under construction to minimize impacts on rail traffic. In addition, impacts would cease once construction was complete in those areas. Therefore, impacts on rail traffic would be short-term and minor.

Long-term minor-to-moderate beneficial impacts would result from implementing transportation infrastructure projects designed to improve the quality, capacity, and connectivity of the existing road and rail networks; circulation at ACPs; and efficiency of traffic circulation.

3.8.2.3 No Action Alternative

No effects would be expected. Under the No Action Alternative, SIAD would not implement the proposed development projects and no impacts on transportation would occur.

3.9 UTILITIES

3.9.1 Affected Environment

Utilities within the Storage and Warehouse District ADPs at SIAD include communications, electrical, natural gas, potable water supply, solid waste management, and sewage and wastewater. Stormwater is addressed in section 3.10.

3.9.1.1 Communication Systems

Both the Storage and Warehouse districts are serviced at some level by fiber optic cable, older telephone lines, and wireless communication facilities providing short-range Wi-Fi and long-range two-way radio services. All warehouses in the Warehouse District are equipped with fiber optic and wireless service, as are select buildings in the Storage District.

3.9.1.2 Electrical

SIAD's electric service provider is Plumas-Sierra Rural Electric Cooperative (PSREC), which was privatized in 2006. The distribution system on-base includes overhead powerlines and

poles, buried cables, transformers, two substations, and a new 2.5-megawatt solar photovoltaic system constructed in 2018 (Sukow 2018).

3.9.1.3 Natural Gas

Natural gas is the primary source of heating fuel for SIAD's buildings, accounting for approximately 66 percent of the total energy consumption at SIAD. Natural gas pipelines primarily service buildings in the cantonment and warehouse areas (Woolpert 2015).

3.9.1.4 Potable Water

SIAD owns and operates their own water supply and treatment system. Three groundwater supply wells pump groundwater to a series of pretreatment systems that treat the water prior to distribution. A fourth well has been removed from the potable water supply but is used as a water source for dust control and other nondrinking water needs (Alisto 2011). Water lines are found in the Warehouse and Storage districts, although many warehouses lack running water. The quality of potable water is regularly monitored to ensure minimum water quality requirements are met or exceeded. Treated water is stored in three steel tanks and an in-ground reservoir for a total capacity of 1.47 million gallons (Tetra Tech 2018b).

According to the 2018 INRMP, SIAD's water usage from 2013 to 2016 was over 75 percent less than in previous years as a result of implementing water conservation measures across the depot. The system is currently operating at a fraction of the capacity for which it was built in 1942 (Tetra Tech 2018b).

3.9.1.5 Solid Waste

SIAD operates a 40-acre nonhazardous waste landfill located at the northwest corner of the Warehouse District. The landfill is expected to have the capacity to sufficiently serve SIAD for another 10 years or more, depending on the success of recycling, reuse, diversion, and waste reduction. Solid waste and recycling operations are conducted according to SIAD's Integrated Solid Waste Management Plan (GIS 2014).

3.9.1.6 Sewer and Wastewater

SIAD operates a wastewater treatment system that includes five lined open-air ponds/lagoons; two anaerobic lagoons are in the Warehouse District. The whole system is permitted for up to 160,000 gallons per day, with the Warehouse District lagoons permitted at 9,000 gallons per day. The Warehouse District's lagoon system has primary and secondary evaporative ponds, each sized at approximately 1 acre. Underground piping throughout the Warehouse District collects and delivers sanitary sewer flows to the lagoon system; however, several warehouses do not currently have sewer connections and use portable toilets.

In the Storage District, sanitary flows are treated by individual and shared septic systems. Underground piping is used to direct sewage to the septic systems shared by multiple buildings. Portable toilets are also used in the Storage District.

3.9.2 Environmental Consequences

3.9.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on utilities if it would result in (1) exceeding the available capacity of existing utilities and supporting infrastructure without an appropriate plan to provide the additional needed capacity, (2) long-term or frequent disruption of utility service on- or off-post, or (3) violating regulatory or permit limits related to utilities (e.g., by creating a wastewater discharge greater than an existing permit allowed).

3.9.2.2 Proposed Action

Implementing the proposed action would result in short- and long-term minor adverse effects on utilities. Short-term minor adverse effects would result from interruptions in supplied services during construction of new buildings, extension of water and sewer lines, building renovations, and roadway improvements. Outages would be appropriately planned and executed so that interruptions would be as short as possible and cause minimal disruption to mission activities.

The solid waste management program also would experience short-term minor adverse effects from the increased waste generated during construction, demolition, and renovation projects. In accordance with Army requirements, construction and demolition waste would be recycled to the maximum extent possible. The volume of nonrecyclable waste would not be anticipated to substantially impact the remaining capacity or life span of SIAD's landfill.

The proposed action includes extending utility services to existing and newly constructed buildings. Although the volume of potable water used and the volume of sewage generated would increase somewhat, SIAD's potable water and sewer systems are currently operating well below capacity. In addition, SIAD and its utility providers are positioned to meet the anticipated increases in demand for electricity and natural gas. Therefore, the short- and long-term adverse impacts of increased demand on these systems would be minor.

3.9.2.3 No Action Alternative

No effects would be expected. Under the No Action Alternative, SIAD would not implement the proposed development projects and no impacts on utilities and other infrastructure would occur.

3.10 WATER RESOURCES

3.10.1 Affected Environment

SIAD water resources include surface waters, wetlands, floodplains, groundwater, and stormwater. Water resources at SIAD are managed according to the SIAD Water Resources Management Plan (Alisto 2011). This installation-specific plan is a guidance document to effectively manage SIAD's water resources and comply with applicable federal, state, local and Army regulations.

3.10.1.1 Surface Water and Wetlands

Figure 8 shows surface waters and wetlands on or adjacent to SIAD. Honey Lake is close to the western border of SIAD's main parcel, but SIAD has no permanent natural surface water bodies on-post and only one small wetland that is not within or adjacent to either the Storage District or the Warehouse District. Man-made sewage lagoons in the southern portion of SIAD's main parcel often contain surface water (see section 3.9.1.6).

Two ephemeral streams are in the northeastern portion of SIAD's main parcel. These streams are tributaries of Skedaddle Creek, which is east of SIAD. They carry water during the spring snowmelt season and after rainfall, and rarely contain water for extended periods of time. The headwaters of both of these tributaries are located in the Storage District. Several other ephemeral streams are on the demolition ground.

Scattered playas are found on SIAD's main parcel and on the airfield. Playas are desert basins with no drainage outlet that become shallowly inundated with surface runoff following heavy rainfall, which quickly evaporates. Playas are often encrusted by salt, and their clay surface soils are hard, cracked, and extremely dry, preventing most vegetative growth. Playas on SIAD do not meet the definition or criteria of a wetland under the 1996 National Wetlands Inventory guidance and have also been determined not to be playa lakes, which are regulated under section 404 of the CWA (Barlow 2017, personal communication).

3.10.1.2 Floodplains

EO 11988, issued by President Carter May 24, 1977, requires federal agencies to avoid to the maximum extent possible the short- and long-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development whenever a practicable alternative is available. There are no floodways or 100-year floodplains on SIAD. All of SIAD is designated by the Federal Emergency Management Agency as flood hazard area Zone X, which is an area of minimal flood zone hazard (Tetra Tech 2018b).

3.10.1.3 Groundwater

SIAD is located in the Honey Lake Valley groundwater basin, a 487-square-mile basin that stores an estimated 10 million acre-feet of water in the upper 100 feet of its aquifers. SIAD has on-post groundwater wells and withdraws water to support drinking, irrigation, dust suppression, and industrial purposes. Groundwater quality varies and some groundwater in the basin is not suitable for drinking water because of high levels of dissolved solids or sulfate, or other impairments (DWR 2004).

The major sources of groundwater recharge are direct infiltration of precipitation in upland areas and infiltration of streamflow in alluvial-fan areas, accounting for approximately 80 percent of total recharge. The remaining 20 percent of recharge consists of infiltration of surface water and irrigation flow on the valley floor (DWR 2004).

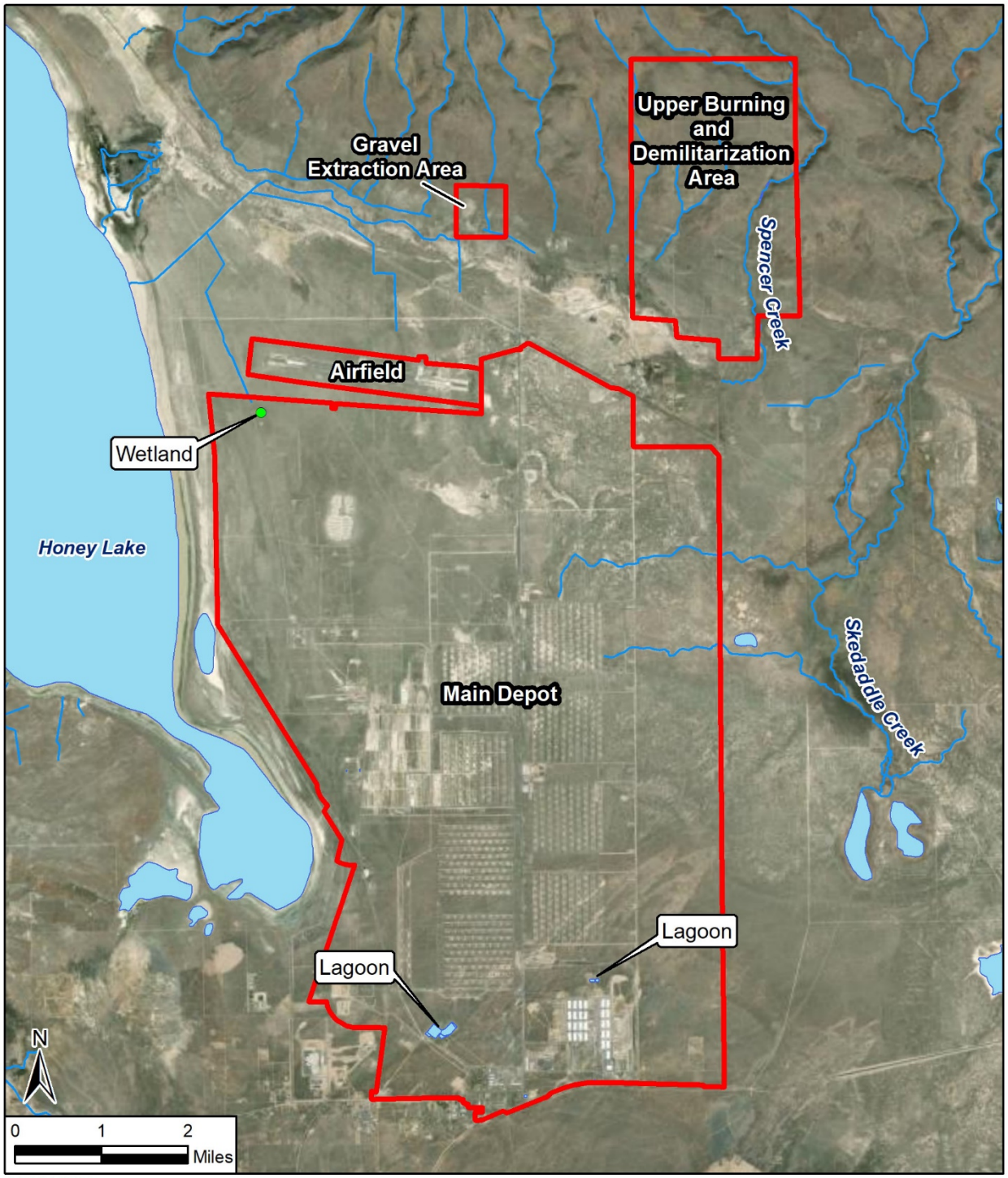


Figure 8. Water Resources

SIAD actively remediated a known VOC groundwater plume beneath the southeastern portion of the depot in 2011 (Alisto 2011). The remediation program was ordered under a Monitoring and Reporting Program enforced by the California Department of Toxic Substances Control. Groundwater contamination at SIAD is addressed by the IRP.

3.10.1.4 Stormwater

SIAD manages its stormwater in accordance with the depot's SWPPP; Water Resources Management Plan (Alisto 2011); and applicable laws, ordinances, permits, and regulations. SIAD's industrial activities are covered by NPDES No. CAS000001, which requires preparation of an SWPPP and implementation of BMPs. Construction activities on SIAD are performed under individual construction permits issued by the State Water Resources Control Board (Alisto 2011; Tetra Tech 2018b).

Stormwater is actively managed in the Storage and Warehouse districts, where a stormwater drainage system controls stormwater movement and prevents flooding or erosion. The system consists of open channel, unlined vegetated ditches (v-ditches) with multiple drop inlets and an underground conveyance system that is mostly reinforced concrete pipe. The underground system conveys stormwater discharge through a series of outfalls to v-ditches that flow to the west, north, and east. The v-ditches manage runoff from hardstands and other compacted gravel and paved surfaces. SIAD recently made improvements to its surface and subsurface stormwater conveyance systems (Alisto 2011). The existing stormwater systems in the Storage and Warehouse districts are considered adequate for typical runoff and have the capacity to accept additional flow (SIAD 2019a; Woolpert 2019).

In undeveloped areas, stormwater runoff follows the natural surface topography and infiltrates into the ground or evaporates.

3.10.2 Environmental Consequences

3.10.2.1 Significance Criteria

An alternative would be expected to have a significant adverse impact on water resources if it would (1) cause an unmitigated loss of wetlands and their functions, (2) adversely affect floodplain elevations, or (3) cause an unmitigated decline in surface water or groundwater quality.

3.10.2.2 Proposed Action

Implementing the proposed action would result in short- and long-term negligible adverse effects on surface waters from stormwater runoff. Implementing the proposed action would have no effect on wetlands, floodplains, or groundwater.

The proposed action would involve ground disturbance and create additional impervious area or hardstand that would require post-construction stormwater management. In total, approximately 350 acres of impervious or hardstand area would be added. This rough estimate is based on the available project information presented in **Table 2** and does not account for projects for which the area of disturbance is presented as "TBD."

SIAD projects that disturb 1 or more acres or disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity, NPDES No. CAS000002. NPDES No. CAS000002 requires the development of a SWPPP that specifies construction BMPs to prevent pollution and erosion and post-construction standards for long-term protection of the environment.

Under the proposed action, short-term impacts on surface waters that could result from ground-disturbing activities during construction would be expected to be negligible. SIAD has no natural surface water bodies and no surface waters are close enough to the proposed projects that any impact is anticipated. Proper implementation of the SWPPP and BMPs would ensure that receiving waters are protected from sediment-laden runoff resulting from erosion. Section 3.6.2.2 discusses the required implementation of erosion prevention methods at SIAD.

Long-term impacts on surface waters resulting from hydrologic modifications associated with the construction of impervious and hardstand areas would be negligible. Those modifications, in the form of post-construction stormwater management measures (permanent BMPs), would be designed and constructed as required in accordance with NPDES No. CAS00002 at applicable project sites. These measures could include catchment basins, settling ponds, v-ditches, and other new conveyances and would be designed to meet pre-construction runoff requirements. Those measures would result in new flow patterns for runoff but would not increase the potential for sediment-laden runoff to affect surface waters.

3.10.2.3 No Action Alternative

No effects on water resources would be expected. Under the No Action Alternative, SIAD would not implement the proposed development projects and no impacts on water resources would occur on SIAD.

3.11 CUMULATIVE EFFECTS

Cumulative effects are the change to “the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.” (40 CFR 1508.7). Cumulative effects can result from individually minor but collectively substantial actions taken over a period of time. In accordance with NEPA, a discussion is required of cumulative effects that could result from actions proposed or anticipated in the foreseeable future.

3.11.1 Cumulative Setting

SIAD is located Lassen County, in a remote region with a few small communities and scattered homes and other structures in the vicinity. The California Department of Finance predicts that the population for Lassen County will not increase or decrease significantly in the next 20 years. Excluding the institutionalized population (Lassen County has three prisons), the population is expected to decrease at a rate of -0.22 percent per year between 2017 and 2037 (LCTC 2018). Government positions, including those in the Army and the Herlong Federal Correctional Institution (FCI), constitute a major source of employment in the county.

Most of the land immediately surrounding SIAD is undeveloped, with some land used for agriculture and grazing. The nearest community is Herlong, which is just south of SIAD's cantonment area and had a population of 298 in 2010 (CDF 2015). Other nearby small communities include Doyle to the south; Janesville and Milford to the west; Litchfield, Standish, and Wendel to the northwest; and Calneva and Stacy to the east. The largest cities near SIAD are Susanville, CA (about 35 miles northwest) and Reno, NV (about 60 miles southeast).

3.11.2 Long-Term Projects at SIAD

SIAD's ADPs for the Storage and Warehouse districts include Phase 3 projects proposed for implementation in the long term (FY30 or later). **Table 7** lists the proposed construction and upgrade projects, which are in **Figures 4** and **5**. Although the location and extent of one project have not yet been defined, the approximate acreage of disturbance for the proposed projects is 1,200 acres, or approximately 3 percent of SIAD's total acreage. The Phase 3 projects are considered part of the cumulative analysis for this EA. Additional NEPA analysis will be conducted for these long-term projects at the appropriate time.

3.11.3 Proposed Projects in the Surrounding Area

In addition to the projects shown in **Table 7**, SIAD conducted a review of past, present, and foreseeable future actions in the vicinity of SIAD by reviewing information found on the websites of Herlong FCI, California Department of Transportation District 2, Honey Lake Wildlife Area, Lahontan Regional Water Quality Control Board, PSREC, Fort Sage Unified School District, Lassen County, and Lassen County Transportation Commission. The transportation projects listed in this section are the only projects in the vicinity of SIAD that were identified.

The Lassen County Transportation Commission's *2018 Regional Transportation Improvement Program* (LCTC 2017) identifies the following projects in the vicinity of SIAD for which funding has been requested through the State Transportation Improvement Program:

- Skyline Road Extension (Phase 2)—Skyline Road corridor improvements are proposed in Susanville, from Route 139 to Route 36 east (Skyline East and Extension). Improvements would include construction of a two-lane highway with a class one bikeway.
- SR 36 South East Gateway Project—A new Gateway monument is proposed to be installed in the City of Susanville, on State Route (SR) 36 from postmile 26.2 to postmile 26.5. The project includes the construction of a wider shoulder and improvements to the curb, sidewalk, and landscaping. Construction is proposed for 2021–2022.

The *2017 Lassen Regional Transportation Plan* (LCTC 2018) identifies the following projects in the vicinity of SIAD that are funded over the next 10 years:

- Garnier Road (County Route A26) is identified for repaving, from Highway 395 to its northern end, by 2027.
- Herlong Access Road (County Route A25) is identified for repaving, from Highway 395 to its eastern end, by 2027.
- Herlong Airport is identified for pavement maintenance in 2020.

Table 7. SIAD Storage and Warehouse District ADP Phase 3 Projects

Project title	ADP district	Project description	Estimated footprint	
			Size (SF or LF)	Area of disturbance (acres)
Storage ADP Phase 3: 2030+				
D Dunnage Hardstand	Storage	Construct new hardstand (Phase 3 of 100-acre site).	--	40
New Hardstand	Storage	Construct new hardstand north of building 544 (Phase 2 of 300-acre site).	--	260
TS Sites	Storage	Construct new hardstands at North Railroad area.	--	200
A–C Interface Hardstand	Storage	Construct new hardstand.	--	130
B–D Interface Hardstand	Storage	Construct new hardstand.	--	110
North Railroad Hardstand	Storage	Construct new hardstand at North Railroad area (Phase 3 of 400-acre site).	--	310
Warehouse ADP Phase 3: 2030+				
New Hardstands	Warehouse	Construct new hardstands north of H Street (Project Number 53330).	--	50
Upgrade and Extend Railroad	Warehouse	Upgrade existing rail and extend to provide rail loop.	1 linear mile	--
Expand Maintenance Compound	Warehouse	Expand campus of maintenance compound and build new maintenance shop per Project Number 64536.	90,000 SF	--
Crate and Assembly Complex	Warehouse	Construct new crate and assembly complex; estimated size.	100,000 SF	--
Expand Hazardous Storage Complex	Warehouse	Expand hazardous storage complex.	TBD	TBD
Shipping/Receiving Facility	Warehouse	Construct new shipping/receiving facility; size estimated.	80,000 SF	--
Warehouse Complex	Warehouse	Construct new warehouse complex of 4 new buildings, 250,000 SF each.	1,000,000 SF	--
New Hardstands	Warehouse	Construct new hardstands to service new warehouse complex.	--	50
H Street Alignment	Warehouse	Realignment of H Street to improve truck access and circulation to new warehouse complex.	18,000 SF	--
Entrance Road	Warehouse	Construct new direct access road to the renovated ACP.	84,000 SF	--
North and South Roads	Warehouse	Changes to North and South roads.	63,000 SF	--

Notes: ADP = Area Development Plan, LF = linear feet, SF = square feet, TBD = to be determined.

The *U.S. Route 395 District 2 Transportation Concept Report* (Caltrans 2017) includes one recommendation related to the long-term planning for improvements to Highway 395 in the vicinity of SIAD. Funding has not been approved nor does a proposed schedule exist for this concept plan:

- It is recommended that Highway 395 be upgraded from a two-lane highway to a four-lane divided expressway from Hallelujah Junction to the SR 36 junction.

3.11.4 Effects

This section discusses resource areas with the potential for cumulative effects as a result of implementing the proposed action.

3.11.4.1 Air Quality

No significant cumulative effects on air quality would be expected. The proposed action in combination with long-term projects at SIAD and in the surrounding region would be expected to have short- and long-term minor adverse effects on air quality. Effects would be caused by emissions from construction equipment and trucks; fugitive dust emissions from ground disturbances during construction; and the addition of any new stationary sources of air emissions such as generators, boilers, and paint booths. By directly inventorying all emissions in nonattainment regions and monitoring concentrations of criteria pollutants in attainment regions, California considers the effects of all past and present emissions in the state in establishing its framework of air quality rules and regulations. This framework of rules and regulations is contained in the State Implementation Plan (SIP). The SIP provides the regulations, orders, and other guidance for meeting clean air standards and associated CAA requirements, including the following:

- State regulations that EPA has approved
- State-issued, EPA-approved orders requiring pollution controls at individual companies
- Planning documents such as area-specific compilations of emissions estimates and computer simulations (modeling analyses) demonstrating that regulatory limits ensure the air will meet air quality standards

The SIP process applies either specifically or indirectly to all activities in the region. No projects or proposals have been identified that, when combined with the proposed action, would threaten the state's attainment of the NAAQS in this region; would result in substantial GHG emissions; or would lead to a violation of any federal, state, or local air regulation. Therefore, cumulative effects would be less than significant.

3.11.4.2 Biological Resources

No significant cumulative effects on biological resources would be expected. The proposed action in combination with long-term projects at SIAD and in the surrounding region would be expected to have short- and long-term negligible adverse effects on biological resources from vegetation removal and development of previously undeveloped areas. Any federal agency actions with the potential to adversely affect protected species would be required to comply with laws such as the ESA, MBTA, and BGEPA, thus limiting these actions' effects. In addition, SIAD

and the area around it are anticipated to remain relatively rural, providing more opportunity for the continued existence of general flora and fauna than more developed areas. Therefore, cumulative effects would be less than significant.

3.11.4.3 Soils

No significant cumulative effects on soils would be expected. The proposed action in combination with long-term projects at SIAD and in the surrounding region would be expected to have short- and long-term minor adverse effects on soils. Effects would be the result of exposure of soils and potential for erosion during construction activity, and an increase in impervious surfaces. Multiple ground-disturbing projects occurring at the same time could increase effects from soil erosion; however, the identified projects would be required by law to implement erosion and sediment control measures that would limit erosion and soil loss. Therefore, cumulative effects would be less than significant.

3.11.4.4 Hazardous and Toxic Materials

No significant cumulative effects would be expected. The proposed action in combination with long-term projects at SIAD and in the surrounding region would be expected to have short-term minor adverse effects on hazardous and toxic materials. No projects are planned in the region surrounding SIAD that would be expected to have more than a negligible effect on hazardous and toxic materials; therefore, cumulative effects would be less than significant.

3.11.4.5 Transportation and Traffic

No significant cumulative effects would be expected. Minor short-term adverse and minor-to-moderate long-term beneficial cumulative effects would be expected. The proposed action would have short-term minor adverse effects because of impacts on traffic from construction activity and long-term minor-to-moderate beneficial effects resulting from improvements in transportation infrastructure and traffic flow. The long-term projects at SIAD and in the surrounding region would be expected to have similar effects. Therefore, cumulative effects would be less than significant.

3.11.4.6 Utilities

No significant cumulative effects would be expected. The proposed action would have short- and long-term minor adverse effects on utilities. No proposed major utility projects were identified in the region surrounding SIAD. The long-term SIAD projects in combination with the proposed action would have short-term minor adverse effects from service interruptions during construction and long-term minor adverse effects from increased use and demand. Therefore, cumulative effects would be less than significant.

3.11.4.7 Water Resources

No significant cumulative effects on water resources would be expected. The proposed action would have short- and long-term negligible adverse effects on surface waters from stormwater runoff. The proposed action plus the proposed long-term projects would involve construction of approximately 1,500 acres of new impervious or hardstand areas on the depot. The cumulative

increase in impervious area at SIAD would likely have a negligible effect on surface water resources since project designs would address stormwater management. Although this would be a notable increase in impervious area on the depot, the required implementation of stormwater management BMPs and geographic separation from surface water resources would limit adverse effects on water quality and hydrology of off-site surface waters. Therefore, cumulative effects would be less than significant.

3.12 SUMMARY OF MITIGATION MEASURES AND BMPS

Mitigation actions are used to reduce, avoid, or compensate for significant adverse effects. This EA does not identify any significant adverse effects on human health or the environment, so no mitigation measures would be necessary to reduce impacts to below significant levels.

The adverse effects of implementing the proposed action would, however, be avoided or minimized (1) through compliance with applicable laws, ordinances, and regulations; (2) by implementing Army and SIAD policies, plans, and other standard procedures for protecting the human and natural environments; and (3) by implementing the BMPs presented in **Table 8**.

Table 8. Best Management Practices

Resource area	Best management practices
Air quality	• For any operation, process, handling, transportation, or storage facility that could result in fugitive dust, take reasonable precautions to prevent the dust from becoming airborne. Reasonable precautions might include using water to control dust from road grading or land clearing.
Biological resources	• Attempt to avoid vegetation removal during times birds protected by the MBTA or BGEPA could be nesting in those areas. If it was necessary to remove vegetation during times that protected birds could be nesting there, a survey would be conducted prior to vegetation removal, including areas where noise from construction could result in a take of nesting migratory birds. Any active nests, including an appropriate buffer around them, would be avoided until the young have fledged. • After construction, reseed or revegetate with native species or install nonvegetative cover in any remaining bare areas.
Cultural resources	• If site number BB-15 is found to be eligible, institute protective measures, including educating workers on areas they can and cannot access and installing site fencing to ensure the site is not damaged during nearby construction activities. • Survey or assess any areas slated for ground disturbance not previously surveyed for archaeological resources for the presence of archaeological resources prior to conducting any earth-disturbing activities. • Evaluate buildings slated for demolition that have not been previously evaluated for NRHP eligibility. • If potential adverse impacts are identified during consultation conducted for the section 106 compliance process, develop and memorialize any necessary mitigation measures in a memorandum of agreement between SIAD, California SHPO, and the interested parties.

Resource area	Best management practices
Geology and soils	• Implement applicable BMPs specific to each project and site in accordance with a NPDES permit and SWPPP, as required. • Prevent off-site soil losses by complying with SIAD's NPDES Construction General Permit, which requires standard BMPs for construction and earth-disturbing activities and follow INRMP guidance to prevent erosion. Appropriate BMPs from these documents would be implemented during construction and operation of the proposed action, including: ○ Seeding/vegetating cleared areas to minimize exposed soils ○ Maintaining v-ditches for stormwater movement and erosion control ○ Maintaining tree windbreaks ○ Limiting off-road traffic in vegetated areas
Hazardous and toxic materials	• Survey applicable structures for potentially hazardous building materials (e.g., ACM, LBP, and PCBs) prior to disturbance, or, in lieu of a survey, treat structures as if those hazardous materials were present.
Transportation and traffic	• Proactively coordinate scheduling of construction projects intersecting rail lines, timing of rail transport and deliveries, and routing of rail traffic to avoid areas under construction to minimize impacts on rail traffic.
Utilities	• Appropriately plan and execute utility outages so that interruptions would be as short as possible and would cause minimal disruption to mission activities.
Water resources	• Obtain coverage for construction associated with the proposed projects under the NPDES No. CAS000002 and develop a SWPPP with appropriate BMPs to protect water resources.

4.0 CONCLUSIONS

This EA analyzes the potential effects of the proposed action, which is to implement Real Property Master Plan planning actions proposed in SIAD's Storage and Warehouse District ADPs, as well as a No Action Alternative. The analysis in the EA supports the conclusion that *no significant adverse* impacts, either individually or cumulatively, on the human or natural environment would result from implementing the proposed action, if it is implemented in compliance with all applicable laws, ordinances, and regulations. Therefore, the Army will not be required to prepare an EIS and will publish a FNSI in accordance with 32 CFR Part 651.

Table 9 summarizes and compares the consequences of the proposed action and the No Action Alternative.

Table 9. Summary of Potential Environmental and Socioeconomic Consequences

Resource	Proposed action	No Action Alternative
Aesthetics and visual resources	No effect	No effect
Air quality	Short- and long-term minor adverse	No effect
Biological resources	Short- and long-term minor adverse; long-term minor beneficial	No effect
Cultural resources	No effect	No effect
Geology and soils	Short- and long-term minor adverse	No effect
Hazardous and toxic materials	Short-term minor adverse	No effect
Land use	No effect	No effect
Noise	Short-term negligible adverse	No effect
Socioeconomics	Short-term negligible beneficial	No effect
Transportation	Short-term minor adverse; long-term minor-to-moderate beneficial	No effect
Utilities	Short- and long-term minor adverse	No effect
Water resources	Short- and long-term negligible adverse	No effect

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APPENDIX A

Record of Non-Applicability

RECORD OF NON-APPLICABILITY (RONA)
Implementation of the Real Property Master Plan and Implementation of Master Planning Actions in the Storage and Warehouse Districts
Sierra Army Depot (SIAD)
Herlong, CA

Over the next 7 years, the Army proposes to implement various real property master planning actions at SIAD. These include implementation of installation-wide framework elements of and standards for future real property actions as well as planned implementation of specific projects as identified in the Storage and Warehouse District ADPs. The ADPs consider the Depot's long-range mission requirements and fiscal constraints and identified projects for execution over the next 20 or more years. The proposed action focuses on the implementation of Phase 1 and 2 projects identified in the ADPs, which consist of construction, repair, and sustainment, and/or restoration and modernization projects.

The proposed action would generate new direct and indirect emissions from the construction and operations of the proposed facilities. General conformity under the Clean Air Act, Section 176 has been evaluated according to the requirements of Title 40 of the Code of Federal Regulations (CFR) Part 93, Subpart B. The requirements of this rule are not applicable to the action because:

The preferred alternative is completely within an area that has been designated in full attainment for the NAAQS.

Supported documentation and emission estimates:

( ) Are attached

( ) Appear in the National Environmental Policy Act documentation

(X) Other (not necessary)

_____ _____

Amy M. Cory, Lieutenant Colonel, U.S. Army DATE
Commanding
Sierra Army Depot, California