Notice of Availability for an Environmental Assessment Addressing Implementation of the Integrated Natural Resources Management Plan at Defense Distribution Depot San Joaquin, California

Defense Logistics Agency (DLA) announces the availability of an environmental assessment (EA) documenting the potential environmental effects associated with the Proposed Action to implement the Integrated Natural Resources Management Plan at Defense Distribution Depot, San Joaquin.

The EA has been prepared as required under the National Environmental Policy Act (NEPA). In addition, the EA complies with DLA's regulation for NEPA compliance, DLA Regulation 1000.22, Environmental Considerations in Defense Logistics Agency Actions. DLA has determined that the Proposed Action would not have a significant impact on the human environment within the context of NEPA. Therefore, the preparation of an environmental impact statement is not required.

The public comment period will end on May 3, 2018. The EA is available also available in hardcopy at the Tracy Branch Library, 20 East Eaton Avenue, Tracy, CA 95376. You may submit comments, to one of the following:

Email: *James.Paslak@dla.mil* with subject "INRMP EA Comments"

Mail: James Paslak, Lead Environmental Protection Specialist, Defense Distribution Depot San Joaquin, P.O. Box 960001, DF-FJEE, Building 100, Room 16, Stockton, CA 95296.

For further information contact James Paslak at 209-839-4081 Monday through Friday, from 6:00 a.m. to 2:00 p.m. (EST), or by email: *James.Paslak@dla.mil*.

Environmental Assessment

Defense Distribution Depot

San Joaquin, California

Revised Draft

February 2018

Environmental Assessment

Defense Distribution Depot San Joaquin

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ENVIRONMENTAL ASSESSMENT ADDRESSING IMPLEMENTATION OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN AT DEFENSE DISTRIBUTION DEPOT, SAN JOAQUIN, CALIFORNIA

Responsible Agency: Defense Logistics Agency (DLA)

Affected Location: Defense Distribution Depot San Joaquin (Depot)

Report Designation: Environmental Assessment

Abstract: DLA proposes to implement the Integrated Natural Resources Management Plan (INRMP) for the Depot. The INRMP was prepared to assist the Installation Support Staff Director with the conservation and rehabilitation of natural resources consistent with the military mission of the Depot for the next 5 years after the approval (Fiscal Years 2018–2022). The INRMP is based on an integrated approach to ecosystem management and addresses wildlife and vegetation goals and objectives, as well as the water and soil resources in the context of the military mission of the Depot.

Implementing the INRMP would result in a comprehensive natural resources management strategy for the Depot that represents compliance, restoration, prevention, and conservation; initiates a cohesive management approach for natural resources on the Depot; and meets legal and policy requirements consistent with national natural resources management philosophies.

Under the No Action Alternative, DLA would not implement the INRMP. In general, implementation of the No Action Alternative would require that DLA continue to not implement specific measures to protect and enhance the natural resources on the Depot which could impede the ability of the installation to meet its current and future mission requirements. The No Action Alternative would not meet the purpose of and need for the Proposed Action.

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Contents

1 Purpose of and Need for the Proposed Action 1
1.1 Introduction 1
1.2 Background 1
1.3 Purpose of and Need for the Proposed Action 1
1.4 Scope of Analysis 2
1.5 Summary of Key Environmental Compliance Requirements 2
1.5.1 National Environmental Policy Act of 1969 2
1.5.2 Applicable Environmental and Regulatory Compliance 3
1.6 Agency Coordination and Public Involvement 3
2 Description of the Proposed Action and Alternatives 5
2.1 Proposed Action 5
2.2 Alternatives Considered but Eliminated from Detailed Analysis 7
2.3 No Action Alternative 7
3 Affected Environment and Environmental Consequences 9
3.1 Land Use 10
3.1.1 Existing Conditions 10
3.1.2 Environmental Consequences 11
3.2 Geology 11
3.2.1 Existing Conditions 11
3.2.2 Environmental Consequences 11
3.3 Topography 12
3.3.1 Existing Conditions 12
3.3.2 Environmental Consequences 12
3.4 Soils 12
3.4.1 Existing Conditions 12
3.4.2 Environmental Consequences 12
3.5 Water Resources 13
3.5.1 Existing Conditions 13
3.5.2 Environmental Consequences 13
3.6 Floodplains 14
3.6.1 Existing Conditions 14
3.6.2 Environmental Consequences 14
3.7 Aquatic and Riparian Habitat 14
3.7.1 Existing Conditions 14
3.7.2 Environmental Consequences 14
3.8 Vegetation 15
3.8.1 Existing Conditions 15
3.8.2 Environmental Consequences 15
3.9 Wildlife 15
3.9.1 Existing Conditions 15

3.9.2 Environmental Consequences 16
3.10 Endangered, Threatened and Rare Species 16
3.10.1 Existing Conditions 16
3.10.2 Environmental Consequences 16
4 Cumulative and Other Effects 19
4.1 Unavoidable Adverse Effects 20
4.2 Compatibility of the Proposed Action and Alternatives with the Objectives of Federal, Regional, State, and Local Land Use Plans, Policies, and Controls 20
4.3 Relationship Between Short-term Uses of the Human Environment and Maintenance and Enhancement of Long-term Productivity 20
4.4 Irreversible and Irretrievable Commitment of Resources 20
4.5 Natural or Depletable Resource Requirements and Conservation Potential 21
5 Conclusion 23
6 References 25

Tables

Table 1. Summary of Depot INRMP Goals 5
Table 2. Summary of Potential Environmental Consequences 19

List of Acronyms

CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DLA	Defense Logistics Agency
DLAR	DLA Environmental Protection Regulation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
INRMP	Integrated Natural Resources Management Plan
NEPA	National Environmental Policy Act
NOA	Notice of Availability
SSC	state species of concern
USC	United States Code

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1 Purpose of and Need for the Proposed Action

1.1 Introduction

The Defense Logistics Agency (DLA) is proposing to implement an Integrated Natural Resources Management Plan (INRMP) for Defense Distribution Depot San Joaquin (the Depot). The INRMP was prepared to assist the Installation Operations Site Director with the conservation and rehabilitation of natural resources consistent with the military mission of the Depot for the next 5 years after the approval (Fiscal Years [FY] 2018–2022). The INRMP is consistent with the Sikes Act Improvement Act of 1997, as amended through 2010 (16 United States Code [USC] 670a et seq.), which requires the preparation, implementation, update, and review of an INRMP for each military installation in the United States and its territories with significant natural resources. Defense Logistics Agency Instruction 4108, *Natural and Cultural Resources Conservation Program* defines the INRMP as a required tool used to implement the natural resources management program (DLA 2009).

This Environmental Assessment (EA) will evaluate the potential environmental impacts associated with implementing the INRMP and the No Action Alternative and has been prepared in accordance with the Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) (Title 40 Code of Federal Regulations (CFR) §§ 1500–1508); Defense Logistics Agency Regulation (DLAR) 1000.22, *Environmental Considerations in Defense Logistics Agency Actions*; and other applicable DLA issuances (e.g., regulations, directives, memorandums, instructions). Because many of the required components are provided in the INRMP, they are incorporated into this EA by reference in accordance with CEQs guidance, *Improving the Process for Preparing Efficient and Timely Environmental Reviews Under the National Environmental Policy Act.*

1.2 Background

Defense Distribution Depot, San Joaquin is a DLA installation in Tracy, California, approximately 20 miles south of Stockton. It consists of approximately 908 acres and is comprised of 448 acres of developed area which is directly south of the Depot Annex which comprises 460 acres of agricultural land. The primary mission of the Depot is storage, shipping, packaging, and maintenance of general supplies in support of the United States Armed Forces defense mission (DLA 2013a).

A description of the location, facilities, history, and mission of the Depot can be found in Section 2 of the INRMP.

1.3 Purpose of and Need for the Proposed Action

The Proposed Action consists of the implementation of the natural resources management measures outlined in the *Defense Distribution Depot San Joaquin INRMP* dated DATE 2018 (DLA 2018). Implementation of the Proposed Action would support the Depot's need to fulfill mission requirements while practicing sound natural resources stewardship on the installation and complying with environmental policies and regulations.

The purpose of the Proposed Action is to direct and support the installation with the conservation and rehabilitation of natural resources consistent with the military mission of the Depot during FY 2018-2022. The INRMP is based on an integrated approach to ecosystem management and addresses wildlife and vegetation goals and objectives, as well as the water and soil resources in the context of the military mission of the Depot.

The need for the Proposed Action is to implement the natural resources management actions identified in the INRMP. Implementation of the INRMP is needed for compliance with environmental laws and regulations; implementation of guidelines and policies for natural resources management; application of best available information and adaptive management; and sustainability of the military mission.

1.4 Scope of Analysis

The scope of the EA includes an evaluation of the Proposed Action and the No Action Alternative. Under the No Action Alternative, projects in the INRMP would not be implemented. In accordance with CEQ regulations implementing NEPA (40 CFR § 1502.14), the No Action Alternative has been analyzed to provide a baseline against which the environmental impacts of implementing the range of alternatives addressed can be compared. This EA examines the potential effects of the Proposed Action and No Action Alternative on six resource areas: land use; air quality and climate; geology, topography, and soils; water resources; wildlife and endangered threatened and rare species. These were identified as being potentially affected by the Proposed Action.

1.5 Summary of Key Environmental Compliance Requirements

1.5.1 National Environmental Policy Act of 1969

The NEPA, 42 United States Code (USC) 4321 et seq., was signed into law on January 1, 1970. The Act establishes a national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the CEQ to coordinate federal environmental efforts. The process for implementing NEPA is outlined in 40 CFR §§ 1500–1508. The CEQ regulations specify that an EA serves to provide evidence and analysis for determining whether to prepare a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS). As part of the EA process, DLA will determine whether the Proposed Action would have the potential to result in significant impacts. If such impacts are predicted, then DLA would decide whether to mitigate impacts below the level of significance, undertake the preparation of an EIS, or select the No Action Alternative. DLA's implementing regulation for NEPA is DLAR 1000.22 (DLA 2011).

According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively." The adoption of an INRMP can be considered a major federal action as defined by Section 1508.18 of the CEQ regulations. As such, the CEQ Regulations (40 CFR §§ 1500–1508) for implementing the procedural provisions of NEPA (42 USC § 4321 et seq.) require the preparation of an EA or EIS for the implementation of an INRMP, whichever is

appropriate. For the purposes of implementing the *Defense Distribution Depot San Joaquin INRMP*, an EA has been chosen as the appropriate level of NEPA analysis.

1.5.2 Applicable Environmental and Regulatory Compliance

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

The Depot is required by federal law (e.g., Sikes Act, Endangered Species Act, and Clean Water Act) and Department of Defense and DLA regulations and instructions to conserve and enhance native ecosystems and environments, including sensitive species, and to maximize public outdoor recreational opportunities within constraints of the military mission. The Sikes Act mandates not only the preparation of an INRMP but also the implementation of the management activities contained in the plan. According to the Sikes Act, the conservation program must be consistent with the mission-essential use of the installation and its lands and cause no net loss of military land use. The Depot INRMP has been prepared to meet natural resources regulatory requirements while ensuring no net loss in the capability of military lands to support the military mission of the Depot.

1.6 Agency Coordination and Public Involvement

DLAR 1000.22 requires DLA to facilitate coordination with federal, state, and local officials and organizations that could be affected by a proposed action (e.g., U.S. Fish and Wildlife Service and California Department of Fish and Wildlife [CDFW]). DLA invites all agencies and the public with an interest in the Proposed Action and alternatives to participate in this NEPA process, which will provide DLA with the opportunity to coordinate with and consider the views of other agencies and individuals. A premise of NEPA is that the quality of federal decisions will be enhanced if proponents provide information to the public and involve the public in the planning process.

Section 1.4 of the INRMP describes the required coordination process for the preparation of the INRMP. A Notice of Availability (NOA) announcing the availability of the Revised Draft INRMP and Draft EA was published in a local newspaper on [DATE] to initiate a 30-day public review period. The NOA solicited comments on the Draft EA and involved the public in the decision-making process. The Revised Draft INRMP and Draft EA were made available at the Stockton-San Joaquin County Public Library of Tracy. A NOA for the Final INRMP and Final EA will also be published in the Tracy Press (local newspaper) upon signature of the FONSI.

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2 Description of the Proposed Action and Alternatives

2.1 Proposed Action

The Depot proposes to implement an INRMP, which supports the management of natural resources as described by the plan itself. The Proposed Action supports an ecosystem approach and includes natural resources management measures to be undertaken at the Depot. The Proposed Action focuses on a 5-year planning period, which is consistent with the timeframe for the management measures described in the INRMP. This planning period would begin in FY 2018 and end in FY 2022. Additional environmental analysis could be required as new management measures are developed over the long-term (i.e., beyond 5 years). The natural resources management measures provided in the INRMP must be consistent with the following criteria, in order to meet the goals and objectives:

- Be based on the principles of ecosystem management.
- Provide for sustainable multipurpose use of natural resources.
- Maintain compliance with relevant environmental regulations.
- Provide for public access for use of natural resources subject to safety and military security considerations.
- Establish specific natural resources management objectives and timeframes for the Proposed Action.
- Prevent loss in the capability of military lands to support the military mission of the installation.

Management objectives established in the INRMP were developed through a thorough evaluation of the natural resources present at the Depot. This section presents the preferred management alternatives based on the professional opinions of the Depot, U.S. Fish and Wildlife Service, and CDFW. Through these evaluations, a set of natural resources planning and management goals have been established that represent the most current theories on adaptive ecosystem-based planning as summarized in Table 1. Selection of these management goals has been tempered with the fact that the operational mission at the Depot takes primacy over natural resources management.

Table 1. Summary of Depot INRMP Goals

Ecosystem Management Goals
• Manage The Depot based on a regional ecosystem approach that conserves biodiversity. • Identify natural resources and operational actions that compromise the function and composition of ecosystems and develop remedies through adaptive management. • Implement management strategies with consideration of ecological units and timeframes. • Support sustainable, multiple-use human activities. • Apply ecosystem-based management through implementation of the INRMP and other installation plans and programs.

Table 1. Summary of Depot INRMP Goals

Threatened, Endangered, and Species of Concern Goals
• Manage The Depot on a regional ecosystem-based approach that manages sensitive species and their associated ecosystems while protecting the operational functionality of the military missions. • Ensure that The Depot remains in compliance with the ESA and appropriate state regulations. • Promote natural resources and ecosystem management in the local region that benefits the functionality of the ecosystems. • Protect sensitive wildlife habitats on The Depot.
Wetlands and Waters of the United States Goals
• Remain in compliance with U.S. Army Corps of Engineers and State of California wetlands regulations. • Minimize the operational impact of The Depot missions on wetland vegetation in the retention pond.
Watershed Management Goals
• Reduce/control nutrient and sediment inputs into the watershed that degrade water quality. • Minimize nonpoint source pollution of surface water in the watershed through the implementation of best management practices. • Maintain vegetation buffers on waterways/riparian corridors.
Fish and Wildlife Management Goals
• Manage based on an ecosystem management approach, rather than a single-species paradigm. • Employ a systematic approach to managing wildlife resources, using a process that includes inventory, monitoring, modeling, management, assessment, and evaluation. • Minimize wildlife-related health risks, safety risks, and environmental damage. • Maintain diversity of wildlife in areas on the installation where there will be no conflict with the mission. • Maintain and involve partnerships with agencies and groups involved in wildlife management.
Habitat Management Goals
• Enhance habitat by providing suitable food and cover for native species while protecting the operational functionality of The Depot's missions. • Protect native habitat diversity. • Enhance habitat for native species by removing invasive vegetation.
Exotic and Invasive Species Management Goals
• Ensure compliance with environmental legislation, regulations, and guidelines. • Control pests and invasive species.
Grounds Maintenance Goals
• Lessen or avoid adverse effects from project activities on the overall ecosystem and its sensitive resources. • Make maximum use of regional, native plant species and avoid introduction of invasive, exotic species in revegetation and landscaping activities. • Reduce maintenance inputs in terms of energy, water, manpower, and equipment.
Agricultural Outleasing Goals
• Balance production on agricultural lands with long-term health and functionality of the soils. • Ensure outlease terms provide ecological benefits where possible and support installation natural resources program management.
Outdoor Recreation Goals
• Provide outdoor recreation experiences while sustaining ecosystem integrity. • Ensure that outdoor recreation activities are not in conflict with mission priorities.
Environmental Awareness, Education, and Outreach Goals
• Provide education opportunities to military personnel. • Promote environmental stewardship through training and awareness.

Table 1. Summary of Depot INRMP Goals

Surrounding Lands Goals
• Coordinate with surrounding landowners on ecosystem-based management of resources and encourage cooperative efforts on adjacent lands that are complementary to the INRMP. • Minimize threats to The Depot assets and natural resources from off-site land use.

For each of the goals and resources areas listed above, specific concerns, objectives, and actions were developed to meet the overriding goals for natural resources managed on the Depot (see INRMP Section 5.1). A summary of the management actions is presented in Appendix C of the INRMP. Appendix C contains the projects proposed for the Depot and includes the relevant INRMP subject areas, a specific INRMP issue number, a project description, the corresponding law or regulation, Department of Defense Class, proposed fiscal year for implementing each recommendation, and estimated costs for completion.

The projects presented in Appendix C of the INRMP strive to enhance natural resources on the Depot, without impacting other installation plans and activities. Any future changes in mission, activity, or technology should be analyzed to assess their impact on natural resources. As new installation plans and DLA guidance and regulations are developed, they should be integrated with the drivers and management actions resulting from this INRMP.

2.2 Alternatives Considered but Eliminated from Detailed Analysis

Under NEPA, reasonable alternatives must be considered in the EA. Considering alternatives helps to avoid unnecessary impacts and allows an analysis of reasonable ways to achieve the proposed action and satisfy the stated purpose and need. A reasonable alternative must be capable of implementation and meet the selection standard.

Implementation of the final approved INRMP is required per the statutory provisions of the Sikes Act (16 USC 670 et seq.) and DLAR 1000.22, *Environmental Considerations in Defense Logistics Agency Actions*. The development of proposed management measures for the INRMP included screening analysis of resource-specific alternatives relative to the criteria provided in Section 2.1. As a result of this screening process, this EA addresses two alternatives: the Proposed Action (i.e., implementation of the INRMP) and the No Action Alternative.

2.3 No Action Alternative

Under the No Action Alternative, the proposed management measures set forth in the INRMP would not be implemented. Current management measures for natural resources would remain in effect and existing conditions would continue. This document refers to the continuation of existing (i.e., baseline) conditions of the affected environment, without implementation of the Proposed Action, as the No Action Alternative because this is the initial INRMP for the Depot. The No Action Alternative serves as a benchmark against which federal actions can be evaluated. Inclusion of a No Action Alternative is prescribed by CEQ regulations and, therefore, will be carried forward for further analysis.

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3 Affected Environment and Environmental Consequences

This section addresses the environmental resources and conditions most likely to be affected by the Proposed Action and No Action Alternative. It provides information to serve as a baseline from which to identify and evaluate environmental consequences likely to result from implementation of the Proposed Action and alternatives. The affected environment within the Depot and the surrounding area is described in detail in the INRMP, which is available for review. Therefore, that information, which can be used as a baseline for identifying potential impacts of the alternatives, is only mentioned briefly for each affected resource in this EA and is incorporated by reference. For more in-depth information for each resource listed in this section, see Section 4 of the INRMP.

All potentially relevant environmental resource areas were initially considered for analysis in this EA. Upon initial investigation, the following resource areas would not be impacted or would have insignificant impacts and will not be analyzed further:

- ***Cultural Resources.*** The Proposed Action would have no effect on archaeological or architectural resources. Surveys at the Depot were conducted in 2005, 2011, and 2012. The surveys found no National Register of Historic Places-listed or eligible archaeological or architectural resources at the installation (DLA 2012a).
- ***Hazardous Materials and Waste.*** The Proposed Action would have no effect on hazardous materials and waste. The Depot's Hazardous Waste Management Plan establishes policies and procedures for complying with Title 22, Social Security, Division 4.5 of the California Code of Regulations as promulgated by the California Department of Toxic Substances Control. The implementation of the INRMP would not affect the Hazardous Waste Management Plan nor significantly add to the hazardous materials or waste produced or stored at the Depot.
- ***Environmental Restoration Program.*** The Proposed Action would have no effect on the environmental restoration program. The installation would still be required to identify, investigate, and clean up contaminated sites. The Proposed Action would not add or disturb any existing contaminated areas. The status of the active monitoring and remediation work at the Depot can be found in the Environmental Baseline Survey Report 2012 (DLA 2012b).
- ***Socioeconomics and Environmental Justice.*** The Proposed Action would have no effect on socioeconomics. There would be no change in the number of personnel as result of the implementation of this INRMP; therefore, there would be no changes in area population or associated changes in demand for housing and services. Accordingly, the Depot has omitted detailed examination of socioeconomics as a resource area. Implementation of the INRMP would not render vulnerable any of the groups targeted for protection under Executive Order 12898, which requires federal actions to address environmental justice in minority populations and low-income populations. No groups of people, including racial, ethnic, or socioeconomic groups, would bear a disproportionate share of any resulting potential negative environmental consequences.

- ***Health and Safety.*** The Proposed Action would have no effect on health and safety at the Depot. Every contractor and employee at the installation is responsible for compliance with rules set forth by the Federal Occupation Safety and Health Administration. Implementation of the INRMP would not affect health and safety standards at the Depot.
- ***Noise.*** The Proposed Action would have no effect on noise levels at the Depot. The ambient noise environment at the Depot is primarily affected by rail traffic on adjacent railroads and local vehicle traffic (DLA 2013a). Specific on-installation sources of noise include vehicular traffic, including personal vehicles, semi-trailers, forklifts, and other cargo-moving machines at the Depot, and occasional agriculture equipment at the Annex.
- ***Transportation and Infrastructure.*** The Proposed Action would have no effect on the transportation and infrastructure of the Depot. Systems included in transportation and infrastructures include: transportation, electrical, natural gas, liquid fuel, potable water, sanitary sewer and wastewater, communications, and solid waste management. Activities associated with implementation of the INRMP would not cause a significant change in the transportation and infrastructure of the Depot.
- ***Air Quality and Climate Change.*** The Proposed Action would have no effect on air quality. The primary concern regarding the potential environmental effects on air quality include exceedances of National Ambient Air Quality Standards and other federal, state, and local limits; and impacts on existing air permits. Potential effects on existing pollutant emissions are precluded by the fact that natural resources management actions would not involve activities that would contribute to changes in existing air quality. Therefore, there would be no effects regarding air quality as a result of implementation of the INRMP and no effects on climate change as a result of implementation of the INRMP.

3.1 Land Use

3.1.1 Existing Conditions

The installation consists of 908 total acres. Land use categories include Industrial, Administrative, and Installation Maintenance and Support at the Depot and Agricultural on the Depot Annex. Industrial land use consists of warehousing, transportation, and light industrial activities and encompasses most of the Depot. Administrative land use (e.g., general purpose offices, professional services, community services, and technical support facilities) is located primarily at the northwestern corner, and at several small areas interspersed throughout the Industrial land uses in the remainder of the Depot. The Installation Maintenance and Support land use (e.g., facilities such as maintenance, fire, safety, and utility operations) is at the northwestern corner adjacent to the east of the Administrative land uses. The Depot is substantially built out with open spaces used for trailer storage, parking, and utility laydown yards (DLA 2015).

The Annex is used for agriculture (e.g., agricultural row crops and orchard operations) and, with the exception of an environmental remediation system, does not have any development (DLA 2015).

Areas outside of and adjacent to the Depot include those within the City of Tracy and the unincorporated area of San Joaquin County, while the Annex is surrounded by unincorporated areas of the county. Railroad tracks divide the Depot from the Annex and form the southeastern boundary of the Depot. Residential land uses, including Residential Low (i.e., low density at 2.1 to 5.8

residential units per gross acre) in the City of Tracy and Rural Residential in unincorporated San Joaquin County, are adjacent to the west and southwest, respectively, of the Depot. The remaining properties adjacent to the Depot and Annex are in unincorporated areas of San Joaquin County and are designated primarily as agricultural (General Agriculture and Agricultural-Urban Reserve land use), except for a small area of Limited Industrial land use immediately east of the Depot at the crossroads of railroads (DLA 2015).

Recreational land uses are limited to a fitness center, an informal walking/bicycle path and a ball field located at the northwestern corner of the Depot. Sidewalks exist in some areas; however, their primary function is to provide access to facilities rather than for recreational purposes. The Annex has no designated recreational facilities.

For more information regarding land use at the Depot, refer to Section 4.1 of the INRMP.

3.1.2 Environmental Consequences

Proposed Action. Beneficial impacts on land use would be expected. Under the Proposed Action, greater guidance on the overall land use management objective would be afforded. Land uses would not specifically be expected to change at the Depot, but instead land use patterns would be enhanced through planning for more suitable habitat for native species.

No Action Alternative. No effects would be expected. No changes to land use associated with natural resources management would be expected under the No Action Alternative.

3.2 Geology

3.2.1 Existing Conditions

The installation is near the west-central border of the San Joaquin Valley, which constitutes the southern region of the Great Valley Geomorphic Province. The San Joaquin Valley is a topographic and structural basin with the axis offset to the west and gently sloping to the north. It is bounded by the Sierra Nevada Range to the east, the Coast Ranges to the west, and the Sacramento River-San Joaquin River Delta to the north (DLA 2014). For more information regarding geology at the Depot, refer to Section 4.4 of the INRMP.

3.2.2 Environmental Consequences

Proposed Action. Beneficial effects would be expected. By implementing an effective soil erosion and sedimentation program, impacts on geologic resources associated with erosion and sedimentation on the Depot would be minimized. Indirect beneficial effects would result from native plant seeding and revegetation.

No Action Alternative. Minor adverse effects would be expected. By failing to implement an effective soil erosion and sedimentation program, impacts on geologic resources associated with erosion and sedimentation at the Depot would be expected to continue.

3.3 Topography

3.3.1 Existing Conditions

The Depot is located in the lower San Joaquin Valley which includes floodplains, alluvial fans, fan terraces, basins, dunes, low terraces, and high terraces. San Joaquin Valley slopes are generally level, although some areas are undulating to hilly because of dissection and erosion (USDA 1992). On the Depot specifically, the area is characterized by mostly flat uplands which are sloping gently downward to the northeast towards the broad delta formed by the San Joaquin and Sacramento Rivers. The elevation ranges from 110 feet above sea level at the south corner to 45 feet at the northern boundary of the Annex (URS 2010). For more information regarding topography at the Depot, refer to Section 4.4.2 of the INRMP.

3.3.2 Environmental Consequences

Proposed Action. Beneficial effects would be expected. By implementing an effective soil erosion and sedimentation program, impacts on topography associated with erosion and sedimentation at the Depot would be minimized. Indirect beneficial effects would result from native plant seeding and revegetation.

No Action Alternative. Minor adverse effects would be expected. By failing to implement an effective soil erosion and sedimentation program, impacts on topography associated with erosion and sedimentation at the Depot would be expected to continue.

3.4 Soils

3.4.1 Existing Conditions

The predominant naturally occurring soils underlying the Depot are the Capay-Urban land complex while the Annex is mainly characterized by Capay clay, with localized areas of the El Solyo clay loam and Stomar clay loam. The Capay-Urban land complex associated with the Depot is almost entirely developed, but those areas still exposed at the surface are similar to those of Capay clay (USDA 1992). For more information regarding soils at the Depot, refer to Section 4.4.3 of the INRMP.

3.4.2 Environmental Consequences

Proposed Action. Beneficial effects would be expected. By implementing an effective soil erosion and sedimentation program, impacts on soils associated with erosion and sedimentation would be minimized. Monitoring of soil conditions to identify potential problem areas, the implementation of conservation measures in areas where exposure of soils is necessary, and, when possible, the avoidance of activities likely to result in erosion would minimize potential impacts on the soil resources and result in a reduction in erosion. Some projects would result in soil disturbance, which can be mitigated through seeding and revegetation.

No Action Alternative. Minor adverse effects would be expected. By failing to implement an effective soil erosion and sedimentation program, impacts on soils associated with erosion and sedimentation at the Depot would be expected to continue. The No Action Alternative does not

include the implementation of soil conservation measures, or a plan of action to prevent or minimize potential soil problems related to erosion and sedimentation before their occurrence. Implementation of the No Action Alternative would involve reactive management to problems after their occurrence, rather than managing the resources to prevent impacts.

3.5 Water Resources

3.5.1 Existing Conditions

Water resources are defined in this discussion as surface water, wetlands, and riparian. The Depot is located in the major hydrologic unit area of San Joaquin and in the San Joaquin watershed (HUC8). The major hydrologic features surrounding the Depot include the Sacramento and San Joaquin Rivers and their tributaries. A stretch of the American River below Folsom Lake has been designated as a National Wild and Scenic River. Two major canals are in the region: the state-owned California Aqueduct and the federal Delta-Mendota Canal. Both canals move water from California Delta to Buena Vista Lake near Bakersfield (USDA 2006).

There are no naturally occurring surface water resources on the Depot. There are no wetlands regulated under Section 404 of the Clean Water Act on the Depot. The principal drainages near the Depot are the Tom Payne Slough north of the Depot, Corral Hollow Creek to its south, and the San Joaquin River, into which both the Slough and the Creek flow, several miles east of the Depot. Surface water runoff from within the Depot is collected in drains that lead to the unlined stormwater detention pond located in the northwest corner of the Depot. Water evaporates or infiltrates into the ground beneath the unlined detention pond and migrates toward the water table. If the stormwater discharge pond levels exceed its capacity, the stormwater is pumped and discharged to an offsite canal (DLA 2012a). On the Annex, unlined ditches convey stormwater runoff to local percolation areas between farm fields (DLA 2012c).

For more information regarding water resources at the Depot, refer to Section 4.5 and 4.6 of the INRMP.

3.5.2 Environmental Consequences

Proposed Action. Beneficial effects would be expected. The establishment of riparian buffers would result in beneficial effects on water quality by reducing nonpoint source impacts associated with runoff and adjacent land uses. Implementation of the Proposed Action would protect ponds that support wetland vegetation. Additional efforts would be made to reduce impacts on wetland vegetation by planning activities, when possible, in a manner consistent with wetlands protection objectives. Indirect beneficial effects would result from soil and erosion management.

No Action Alternative. Minor adverse effects would be expected. The No Action Alternative does not provide a formal plan of action for monitoring and protecting the water resources at the Depot. Water resources are vulnerable to degradation without the implementation of a formal plan of action that includes watershed protection measures and nonpoint source pollution controls. Also, the No Action Alternative does not establish limited-use wetland buffers to protect water quality by reducing nonpoint source impacts associated with runoff and adjacent land uses, nor does it establish a formal set of management measures to protect and enhance wetlands by preventing or minimizing potential impacts resulting from mission-related activities.

3.6 Floodplains

3.6.1 Existing Conditions

The Depot does not fall within a federally regulated floodplain. Per the California Department of Water Resources Awareness Floodplain Maps, the Depot is not within an Awareness Floodplain (100-year flood hazard area). The closest designated Awareness Floodplain is 1 mile south of the Depot. The intent of the Awareness Floodplain Mapping project is to identify all pertinent flood hazard areas for areas not mapped under the Federal Emergency Management Agency National Flood Insurance Program and to provide the community and residents an additional tool in understanding potential flood hazards in areas not currently mapped as a regulated floodplain.

3.6.2 Environmental Consequences

Proposed Action. Minor, indirect beneficial effects would be expected. While there are no federally regulated floodplains on the installation, implementation of the watershed management actions could result in beneficial results by the reduction of sedimentation, erosion, and input into connected drainages with regulated floodplains off the installation during storm events.

No Action Alternative. Minor adverse effects would be expected. The No Action Alternative does not provide for the implementation of a routine assessment and monitoring program to protect water resources and their related habitats. Also, the No Action Alternative does not establish a formal set of management measures to protect and enhance regional floodplains by preventing or minimizing potential impacts resulting from mission-related activities.

3.7 Aquatic and Riparian Habitat

3.7.1 Existing Conditions

There are no naturally occurring surface water resources on the Depot. The principal drainages near the Depot are the Tom Payne Slough north of the Depot, Corral Hollow Creek to its south, and the San Joaquin River, into which both the Slough and the Creek flow, several miles east of the Depot. There is a percolation/evaporation pond on site that supports wetland vegetation and exhibits the structure and function of a wetland. Surface water runoff from the entire Depot is collected into a stormwater drainage system and transported to this unlined holding pond in the northern corner of the site. Water in the pond evaporates or percolates downward into the soil. If inflows exceed the capacity of the pond, excess water is pumped to a local drainage ditch that ultimately drains into the San Joaquin River, 4.5 miles northeast of the site (DLA 2013b). On the Annex, unlined ditches convey stormwater runoff to local percolation areas between farm fields (DLA 2012c).

3.7.2 Environmental Consequences

Proposed Action. Minor, indirect beneficial effects would be expected. While there is no naturally occurring habitat on the installation, implementation of the watershed management actions could result in beneficial results by the reduction of sedimentation, erosion, and input into connected drainages off the installation during storm events. Assessment of riparian habitats would provide a baseline that can be used in tracking conditions and trends of these habitats, which would allow management practices to be applied where and when needed. Additional management measures

established to protect or enhance riparian habitats would include proper planning; limiting pesticide and fertilizer use in the riparian buffer areas; and minimizing the modification of existing hydrologic characteristics to minimize erosion and sedimentation.

No Action Alternative. Minor adverse effects would be expected. The No Action Alternative does not provide for the implementation of a routine assessment and monitoring program to protect these habitats. Also, the No Action Alternative does not establish limited-use riparian buffers to protect water quality by reducing nonpoint source impacts associated with runoff and adjacent land uses, nor does it establish a formal set of management measures to protect and enhance these habitats by preventing or minimizing potential impacts resulting from mission-related activities.

3.8 Vegetation

3.8.1 Existing Conditions

There are limited natural lands at the Depot; a majority of the land has been previously disturbed and is developed with industrial land uses with minimal native vegetation. The remaining vegetation consists primarily of annual grasslands in the northern and eastern portions of the Depot. These areas are dominated by various brome species (*Bromus* ssp.), Bermuda grass (*Cynodon dactylon*), yellow starthistle (*Centaurea solstitialis*), and field mustard (*Brassica rapa*). The Annex consists of 460 acres of agricultural land, including cultivated crops such as alfalfa (*Medicago sativa*) and safflower (*Carthamus tinctoris*) (DLA 2013c). A non-native woodland consists of approximately 1 acre directly outside of the eastern end of the fenced portion of the Depot. This area is surrounded by railroad tracks and is dominated by dense stands of the non-native plant species giant cane (*Arundo donax*) and tree of heaven (*Ailanthus altissima*).

3.8.2 Environmental Consequences

Proposed Action. Beneficial effects for vegetation would be expected. Implementation of the Proposed Action would result in conservation of native vegetation, management of non-native vegetation, and the reestablishment of native vegetation. Also, under the Proposed Action, rare flora would be treated with added importance and valued for their contribution to the natural heritage of the Installation.

No Action Alternative. Minor adverse effects would be expected to continue. Under the No Action Alternative, the health and condition of the vegetation would not be improved, and management measures to maintain or increase the abundance and biodiversity of vegetation at the Depot would not be implemented, thereby resulting in a continuing decline in the quality and complexity of the vegetation communities. Decline in community quality and complexity would continue to affect site stability and wildlife habitat.

3.9 Wildlife

3.9.1 Existing Conditions

The Depot consists mainly of disturbed lands and small, fragmented annual grasslands which provide limited habitat value for wildlife. There are no sources of perennial water on the Depot, resulting in no habitat for fish. The areas that have the potential to offer habitat to wildlife include the

large water treatment retention basin, the baseball field and picnic area, and the agricultural fields in the Annex. For more information regarding wildlife at the Depot, refer to **Section 4.6.2** of the INRMP.

3.9.2 Environmental Consequences

Proposed Action. Beneficial effects for wildlife species would be expected. Implementation of the Proposed Action would result in conservation of native habitat and the reestablishment of native vegetation would result in the protection of habitat for various wildlife species. Also, under the Proposed Action, rare flora and fauna would be treated with added importance and valued for their contribution to the natural heritage of the Installation.

No Action Alternative. Minor adverse effects would be expected to continue. Under the No Action Alternative, the health and condition of the wildlife populations would not be improved, and management measures to maintain or increase the abundance and biodiversity of wildlife at the Depot would not be implemented. In addition, management measures designed to protect and enhance wildlife habitats (i.e., riparian, wetlands, terrestrial) would not be implemented, thereby resulting in a continuing decline in the quality and complexity of the habitats. Decline in habitat quality and complexity would continue to affect wildlife and biodiversity adversely.

3.10 Endangered, Threatened and Rare Species

3.10.1 Existing Conditions

No federally listed plant or wildlife species have been observed at the Defense Distribution Depot San Joaquin.

There are four CDFW state species of concern (SSC) bird and one state-threatened bird species that have been documented within 5 miles of the Depot: burrowing owl (*Athene cunicularia*); California horned lark (*Eremophila alpestris actia*); tricolored blackbird (*Agelaius tricolor*); Swainson's hawk (*Buteo swainsoni*); and song sparrow – Modesto population (*Melospiza melodia*). Two CDFW SSC mammals, one federal- and state-endangered mammal, and one federal-endangered and state-threatened mammal have been documented within 5 miles of the Depot: American badger (*Taxidea taxus*); riparian brush rabbit (*Sylvilagus bachmani riparius*); San Joaquin kit fox (*Vulpes macrotis mutica*); and San Joaquin pocket mouse (*Perognathus inornatus inornatus*). Additionally, one federally and state-threatened amphibian, the California tiger salamander (*Ambystoma californiense*), and one CDFW SSC invertebrate, Sacramento anthicid beetle (*Anthicus sacramento*), have been documented within 5 miles of the Depot.

State-listed species that are not federally listed under the ESA are considered in management of natural resources. There are state-listed species, migratory birds, and plant species of concern at the Depot that are not provided species-specific management but are taken into consideration in developing land management actions and priorities. For more information regarding endangered, threatened and rare species at the Depot, refer to Section 4.6.3 of the INRMP.

3.10.2 Environmental Consequences

Proposed Action. Beneficial effects on all special-status species, including listed state-listed species and SSC, at the installation would be expected. Implementation of the Proposed Action

would provide protection and management for ESA-listed and state-listed species found at the installation. Also, under the Proposed Action, rare flora and fauna would be treated with added importance and valued for their contribution to the natural heritage of the Installation.

No Action Alternative. Minor adverse effects would be expected for special-status species not protected under the ESA. The No Action Alternative does not provide special measures for the protection and management of these species or future nesting activity that might occur. Implementation of the No Action Alternative would continue to leave these species vulnerable to potential impacts that could adversely affect their existence at the Installation.

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4 Cumulative and Other Effects

A cumulative effect is defined as an effect on the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place locally or regionally over a period of time.

Implementation of the INRMP would result in a comprehensive natural resources management strategy for the Depot that represents compliance, restoration, prevention, and conservation; initiates a cohesive management approach for natural resources on the Depot; and meets legal and policy requirements consistent with national natural resources management philosophies. Implementation would be expected initially to improve existing environmental conditions at the Depot, as shown by the potential for beneficial effects in Table 2. Over time, adoption of the Proposed Action would enable the Depot to achieve their goal of maintaining ecosystem viability and ensuring sustainability of desired military mission conditions.

Table 2. Summary of Potential Environmental Consequences

Resource Area/Environmental Condition	Environmental Consequence	
	No Action Alternative	Proposed Action
Land Use	None	Beneficial
Climate	None	None
Air Quality	None	None
Geology	Minor Adverse	Beneficial
Topography	Minor Adverse	Beneficial
Soils	Minor Adverse	Beneficial
Water Resources	Minor Adverse	Beneficial
Wetlands	Minor Adverse	None
Floodplains	None	None
Aquatic Habitat	None	None
Riparian Habitat	Minor Adverse	Beneficial
Vegetation	Minor Adverse	Beneficial
Wildlife	Minor Adverse	Beneficial
Endangered, Threatened, and Rare Species	Minor Adverse	Beneficial
Cultural Resources	None	None

Table 2. Summary of Potential Environmental Consequences

Resource Area/Environmental Condition	Environmental Consequence	
	No Action Alternative	Proposed Action
Hazardous and Toxic Materials	None	None
Noise	None	None
Socioeconomic Resources	None	None
Environmental Justice	None	None
Infrastructure	None	None

Although growth and development can be expected to continue outside of the Depot and within the surrounding natural areas, cumulative adverse effects on these resources would not be expected when added to the effects of activities associated with the proposed management measures included in the INRMP.

4.1 Unavoidable Adverse Effects

No unavoidable adverse effects would occur as a result of implementing the Proposed Action.

4.2 Compatibility of the Proposed Action and Alternatives with the Objectives of Federal, Regional, State, and Local Land Use Plans, Policies, and Controls

Implementation of the installation's INRMP would not result in any significant or incompatible land use changes on- or off-installation. The INRMP considers the installation's existing conditions and constraints in the siting, design, and timing of the proposed management goals, objectives, and actions.

4.3 Relationship between Short-term Uses of the Human Environment and Maintenance and Enhancement of Long-term Productivity

The long-term beneficial effects would ensure that the installation is able to meet its current and future mission requirements, while ensuring the sustainability of the installation.

4.4 Irreversible and Irretrievable Commitment of Resources

The Proposed Action would not involve the irreversible and irretrievable commitment of energy resources and human resources.

4.5 Natural or Depletable Resource Requirements and Conservation Potential

The Proposed Action would require no significant use of natural or depletable resources.

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5 Conclusion

Section 1.4 provides information on which resource areas were selected to be analyzed in detail in the EA and the rationale behind each decision. Table 2 summarizes the potential impacts of the Proposed Action and the No Action Alternative on the environmental resource areas analyzed in detail. Implementation of the Proposed Action or No Action Alternative would not result in any individual or cumulatively significant environmental impacts. Therefore, preparation of an EIS is not warranted and issuance of a FONSI would be appropriate.

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