

**Fort Ord
Multi-Species Habitat Conservation Plan
Public Draft
Draft Environmental Impact Statement/
Environmental Impact Report
SCH #2005061119**



October 2019

CEQA Lead Agency



Fort Ord Reuse Authority

NEPA Lead Agency



U.S. Fish and Wildlife Service



Prepared By



Denise Duffy & Associates, Inc.



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Prepared for:
NEPA Lead Agency
U.S. Fish and Wildlife Service



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EXECUTIVE SUMMARY

ES 1.0 INTRODUCTION

This document has been prepared as a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to analyze the effects of the Proposed Action, which is the issuance of Federal and State incidental take permits (ITPs) by the U.S. Fish and Wildlife Service (USFWS) under Section 10(a)(1)(B) of the Federal Endangered Species Act of 1973 (ESA), and by the California Department of Fish and Wildlife (CDFW) under Section 2081 of the California Fish and Game Code (CFG Code) in compliance with the California Endangered Species Act of 1984 (CESA). The issuance of the ITPs would authorize take of the State and Federally listed species identified in the Draft Fort Ord Multi-Species Habitat Conservation Plan (Draft Fort Ord HCP or Draft HCP) during the course of the redevelopment of the former Fort Ord military base.¹ The Fort Ord Reuse Authority (FORA) and its member jurisdictions have prepared the Draft Fort Ord HCP as a required component of the application for the Federal ITP. The USFWS is acting as lead agency under National Environmental Policy Act (NEPA) and FORA is acting as lead agency under California Environmental Quality Act (CEQA).

In April 1997, the revised *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (HMP) was issued by the U.S. Army Corps of Engineers (USACE) on behalf of the U.S. Department of the Army (Army). The HMP established a comprehensive species and habitat conservation program as part of the closure, disposal, and reuse of former Fort Ord lands. While the HMP provides a framework for species and habitat conservation on former Fort Ord, it does not meet USFWS or CDFW standards or requirements for an application soliciting the issuance of ITPs. The Draft Fort Ord HCP is intended to fulfill those requirements by combining key components of the HMP with additional elements to ensure compliance with the ESA (16 U.S.C. Sections 1531–1544) as amended and the CESA (CFG Code Section 2050 et seq.) as amended; thereby serving as a basis for issuance of base-wide ITPs by USFWS and CDFW.

Multiple jurisdictions, organizations, and agencies are requesting to be the Permittees under one non-severable ESA Section 10(a)(1)(B) ITP and one non-severable CESA Section 2081 permit that would provide authorization for take that occurs as a result of implementing covered activities within their respective jurisdictions. An HCP Joint Powers Authority (JPA) (please refer to Appendix I of the Draft HCP), called the Fort Ord Regional Habitat Cooperative (Cooperative), would be formed prior to permit issuance. Each jurisdiction, organization, and agency would also sign the JPA. Permittees would adopt HCP implementing ordinances or policies before permit issuance. The Cooperative would oversee and facilitate the implementation of the HCP on behalf of the Permittees. However, the Permittees would ultimately be responsible for compliance with all the terms and conditions of the ITPs and for the performance of the Cooperative.

The Proposed Action analyzed in this EIS/EIR is based on the Draft Fort Ord HCP, including the described Plan Area, purpose and objectives, covered species, covered activities, and take assessment. However, in accordance with NEPA and CEQA, other sensitive species that may be affected by permit issuance are addressed in this EIS/EIR in addition to the covered species identified in the Draft HCP. The alternatives analysis in this EIS/EIR differs from the alternatives analysis in the Draft HCP in that this EIS/EIR focuses on analyzing a reasonable range of alternatives that may result in more, less, similar, or different impacts on the environment as a result from the Proposed Action or alternatives; whereas the focus of the alternatives analysis in the Draft HCP are those reasonable alternatives that may result in a reduction of take of covered species. Additionally, this EIS/EIR evaluates potentially significant effects on the environmental resources that may occur as a result of the Proposed Action or alternatives; the Draft HCP impact assessment addresses the impacts to covered species only as a result of implementation of the Draft HCP.

For all potentially significant impacts, the EIS/EIR identifies mitigation measures where feasible to reduce those impacts to a less-than-significant level. As discussed below in Section 1.7, *Decisions to be Made*, in order to meet permit issuance criteria, the Draft Fort Ord HCP is required to fully mitigate for impacts to covered species. As a result, the Draft Fort

¹ Under the Federal ESA, Section 10 ITPs are only required for wildlife and fish species. However, the Federal ESA prohibits removal, possession, malicious damage or destruction of endangered plants on Federal lands, and removal cutting, digging up or damaging, or the destruction of endangered plants in other areas in known violation of State law. Plants included as HCP species in the Draft Fort Ord HCP are covered in order to meet regulatory obligations under the ESA Section 7 and to comply with the CESA.

Ord HCP contains Avoidance and Minimization Measures (AMMs) and Mitigation Measures (MMs), which were developed to avoid and minimize impacts from covered activities and mitigate for impacts that cannot be avoided. AMMs are actions associated with covered activities that avoid and/or minimize impacts on the covered species. The implementation of AMMs is directly tied to take authorizations under the ESA and the CESA. These actions are typically best management practices to implement the covered activities. MMs are conservation actions designed to restore, enhance, preserve, and/or compensate for any residual impacts on HCP species. Both AMMs and MMs are required to meet criteria for issuance of Federal and State ITPs. In some instances and where appropriate, this EIS/EIR identifies when AMMs and MMs may be implemented to reduce impacts to other environmental resources (e.g., erosion control, air quality, water quality, etc.).

ES 2.0 PROPOSED ACTION AND ALTERNATIVES

The following alternatives were found to generally meet purpose/need and goals/objectives of the Draft HCP, be feasible or potentially feasible, and have some potential to avoid or substantially reduce one or more significant impacts of the Proposed Action, and, therefore, are considered for further analysis in the EIS/EIR.

- Alternative 1: No Action Alternative – Wildlife Agencies would not issue base-wide ITPs and the Draft Fort Ord HCP would not be approved or implemented. This alternative represents the No Project Alternative defined under CEQA and the No Action Alternative defined under NEPA;
- Alternative 2: Proposed Action Alternative – Wildlife Agencies would issue base-wide ITPs; take would be permitted for development and habitat management activities as described in the Draft Fort Ord HCP; and
- Alternative 3: Reduced Take Alternative – Wildlife Agencies would issue base-wide ITPs for development and habitat management activities within designated development areas, but no take would be authorized for development activities within HMAs.

The following provides a brief summary of each of the alternatives.

ES 2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. Under the No Action Alternative, all future development activities would be subject to project-specific conditions of approval and permit requirements from the applicable local land use jurisdictions and resource agency(ies). Land recipients of habitat management parcels designated by the HMP would continue to be required to implement the habitat management requirements as identified in the HMP (including prescribed burns), deed restrictions, and approved MOAs and MOUs.

Under the No Action Alternative, development activities would occur within the 4,241 acres of the designated development areas that are primarily developed, which would not require ITPs from the USFWS and/or CDFW. This alternative assumes that development activities within the 5,051 acres of vegetated designated development areas would be constrained to approximately 25% of that area (or 1,263 acres); the remaining 3,788 acres would be used as mitigation lands for the development of the 1,263 acres. In addition, without base-wide ITPs, it is unlikely that HMP-required habitat management activities that would result in significant ground-disturbing activities and any allowable development would occur within the HMAs; only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs.

ES 2.2. Alternative 2: Proposed Action Alternative

The Proposed Action is the issuance of base-wide ITPs by the USFWS and CDFW, and approval and implementation of the Draft Fort Ord HCP by the Permittees. The project addressed in the Draft Fort Ord HCP is the reuse and development of the former Fort Ord military base as presented in the HMP (Section 7 requirement of the Biological and Conference Opinion [USFWS, 1997]), Fort Ord Reuse Plan (EMC and EDAW, 1997), and subsequent updates. Both the Reuse Plan and the HMP were the result of years of planning, environmental review, and land conveyance decisions relative to the

closure, disposal, and reuse of former Fort Ord; they establish the template for ultimate land uses on the former base that designates developable areas and HMAs.

The Reuse Plan and the HMP assume a program of development and redevelopment on former Fort Ord. Under the Draft Fort Ord HCP, base reuse would result in the rehabilitation and construction of roads, utilities, and other infrastructure to support new research/educational, residential, commercial, light industrial, recreational, and other development. As a result, of the 27,832 acres in the Plan Area, 4,241 acres of existing developed areas on the former base would be redeveloped and about 5,051 acres of existing vegetated areas would be affected by new development within the designated development areas. Approximately 777 acres would be affected by covered activities within the HMAs; however, that development would be required to be sited in areas of existing development or disturbance to the maximum extent feasible. Impacts to HCP species resulting from base redevelopment would be minimized and mitigated through the preservation and management over 17,600 acres of HCP species populations, their habitat, and natural communities within the Plan Area.

The actions under the HMP must be implemented as required under existing land transfer agreements. Habitat and species management requirements under the HMP have been incorporated into the conservation strategy of the Draft Fort Ord HCP. The Draft Fort Ord HCP adds to and codifies the HMP to meet the Federal and State ITP issuance criteria. Upon issuance of the State and Federal ITPs, if the Draft Fort Ord HCP requires additional actions, then the Draft Fort Ord HCP must be followed to ensure permit compliance.

All covered activities described in Chapter 3, *Covered Activities*, of the Draft Fort Ord HCP apply to the two permit applications (CDFW and USFWS). Listed below are the covered activities for which incidental take authorization from the USFWS and CDFW is sought (please also refer to **Table 2-7a**, **Table 2-7b**, and **Table 2-8** in Chapter 2, *Proposed Action and Alternatives*):

- Development in designated development areas;
- Allowable development in the HMAs;
- Future road corridors and infrastructure construction, operations, and maintenance in HMAs;
- Operation and management activities within HMAs; and
- HCP required action that may result in take.

All parties seeking coverage for covered activities under the Draft Fort Ord HCP must obtain approval from the Permittees with jurisdiction over the location where the covered activity is proposed for implementation. Any uncertainties regarding whether a type of covered activity can receive coverage under the Draft Fort Ord HCP will be resolved by the Cooperative. An activity would be covered under the Draft Fort Ord HCP if it meets the following:

- Does not preclude achieving the biological goals and objectives of the Draft HCP (Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP).
- Is conducted by, or is subject to the jurisdiction of, one of the Permittees.
- Is a type of impact evaluated in the Draft HCP (Chapter 4, *Impact Assessment and Levels of Take*, of the Draft Fort Ord HCP).
- Is consistent with the amount of take coverage assumed by the Draft HCP and sufficient take coverage under the permits remains available for other covered activities.

All covered activities must incorporate the relevant avoidance and minimization measures described in Chapter 5, *Conservation Strategy*, of the Draft HCP to avoid or minimize impacts to HCP species. Part of the HCP concurrence for parties seeking coverage under the Draft HCP is demonstration that the avoidance and minimization measures have been incorporated or will be incorporated properly into proposed projects.

ES 2.3. Alternative 3: Reduced Take Alternative

The Reduced Take Alternative would consist of a reduced amount of covered activities compared to the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same

Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce environmental impacts. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

ES 3.0 ENVIRONMENTAL CONSEQUENCES

The analysis contained in this EIS/EIR evaluates the potential environmental consequences associated with the Proposed Action and alternatives in accordance with the requirements of CEQA and NEPA. This analysis is limited to evaluating whether the Proposed Action and alternatives would represent a “significant effect on the environment” under CEQA, or would “significantly affect the quality of the human environment” according to NEPA. **Table ES-1** provides a summary of the impacts and mitigation measures discussed in this EIS/EIR.

Table ES-1. Summary of Impacts and Mitigation Measures

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
4.2 Aesthetics			
AES-1: Have a substantial adverse effect on a scenic vista.	PAA = LTS ³ RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a State Scenic Highway.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
AES-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.3 Air Quality			
AQ-1: Conflict with or Obstruct Implementation of MBARD’s 2016 AQMP.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
AQ-2: Violate any Air Quality Standard or Contribute to an Air Quality Violation.	PAA = PS RTA = PS	PAA = PS RTA = PS	<p>AQ-1: Prepare a Construction Dust Mitigation Plan prior to the initiation of ground-disturbing activities.</p> <p>AQ-2: Minimize the extent of temporary construction-related diesel particulate matter and NO_x emissions for all future habitat management activities requiring the operation of heavy-duty, construction-related equipment.</p> <p>AQ-3: Develop a Prescribed Burn Management Program (PBMP).</p> <p>AQ-4: Limit prescribed burns conducted in the East Garrison South Reserve to 105 acres or less in size and conduct burns in advance of planned future development.</p> <p>Impact reduced to less-than-significant level with mitigation.</p>

² Impact significance under the Proposed Action Alternative and Reduced Take Alternative are *relative to* the No Action Alternative.

³ Key: LTS = Less than significant, PS = Potentially Significant, B = Beneficial, NI = No Impact, PAA = Proposed Action Alternative, RTA = Reduced Take Alternative

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
AQ-3: Result in a Cumulatively Considerable Net Increase in Emissions of a Criteria Pollutant for which the Region is in Non-Attainment.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures AQ-1 through AQ-4. <i>Impact reduced to less-than-significant level with mitigation.</i>
AQ-4: Expose Sensitive Receptor(s) to Substantial Pollutant Concentration.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures AQ-1 through AQ-4. <i>Impact reduced to less-than-significant level with mitigation.</i>
AQ-5: Create Objectionable Odors Affecting a Substantial Number of People.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.4 Biological Resources			
BIO-1a: Impacts to HCP Species and Habitat.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
BIO-1b: Impacts to Non-HCP Special-Status Species and Habitat.	PAA = PS RTA = PS	PAA = PS RTA = PS	BIO-1: Conduct an Environmental Employee Education Program prior to the initiation of ground-disturbing activities. BIO-2: Retain a qualified biological monitoring during initial ground-disturbing activities. BIO-3: Conduct Pre-Construction Surveys for special-status bat species. BIO-4: Conduct Pre-Construction Surveys for Monterey dusky-footed woodrat. BIO-5: Conduct Pre-Construction Surveys for American badger. BIO-6: Conduct Pre-Construction Surveys for Protected Avian Species. BIO-7: Conduct Pre-Construction Surveys for Burrowing Owl. BIO-8: Conduct Pre-Construction Surveys for non-HCP Species special-status plant species. BIO-9: Conduct Surveys for Monterey Ornate Shrew within Habitat Corridor and Travel Camp HMAs. <i>Impact reduced to less-than-significant level with mitigation.</i>
BIO-2: Impacts to Riparian Habitat, Federally Protected Wetlands, or other Sensitive Natural Community.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
BIO-3: Potential to substantially interfere with the movement of native wildlife or impede the use of wildlife nurseries associated with the Draft HCP.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
BIO-4: Potential to conflict with Federal, State, or local policies or ordinances protecting biological resources, including tree preservation and oak woodlands, as a result of implementation of the Draft HCP.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
BIO-5: Potential to conflict with adopted HCPs, NCCPs, or other approved local, regional, or State habitat conservation plan, including the approved Fort Ord HMP, as a result of implementation of the Draft HCP.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.5 Climate Change			
CC-1: Generate GHG emissions that would exceed applicable thresholds established by the U.S. EPA, State of California, or MBARD.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
CC-2: Conflict with a plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
CC-3: GHG emissions and associated climate change may cause an adverse effect on the Proposed Action.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.6 Cultural Resources			
CR-1: Potential impacts on known or unknown cultural resources, unique paleontological resources or sites, unique geologic features, human remains, and tribal cultural resources.	PAA = PS RTA = PS	PAA = PS RTA = PS	CR-1: Stop work and notify a qualified archeologist and/or the Native American Heritage Commission. <i>Impact reduced to less-than-significant level with mitigation.</i>
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.7 Energy			
ENG-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
ENG-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
4.8 Geology and Soils			
GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
GEO-2: Result in substantial soil erosion or the loss of topsoil.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
GEO-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.9 Hazards and Hazardous Materials			
HAZ-1: Create a significant hazard through the routine transport, use, or disposal of hazardous materials.	PAA = PS RTA = PS	PAA = PS RTA = PS	HAZ-1: Prepare a Hazardous Materials Spill Response Plan. HAZ-2: Evaluate areas where fire retardants or other chemicals are used for fire suppression purposes and appropriately remediate if contamination is detected. <i>Impact reduced to less-than-significant level with mitigation.</i>
HAZ-2: Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of a hazardous material.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures HAZ-1 and HAZ-2 . <i>Impact reduced to less-than-significant level with mitigation.</i>
HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures AQ-1 through AQ-4 . <i>Impact reduced to less-than-significant level with mitigation.</i>
HAZ-4: Create and/or expose the public or environment to hazardous conditions on a site that is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
HAZ-5: For a project located within an airport land use plan or within two miles of a public airport or within the vicinity of a private airstrip, expose people residing or working in the project area to a safety hazard.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	PAA = B RTA = B	PAA = B RTA = B	No mitigation is required.
HAZ-7: Expose people or structures to a significant loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measure HAZ-3: Prepare a Fuel Management Plan, and Mitigation Measure PS-1. <i>Impact reduced to less-than-significant level with mitigation.</i>
HAZ-8: Cause potential hazards to the public due to exposure to military munitions.	PAA = PS RTA = PS	PAA = PS RTA = PS	HAZ-4: Develop a safety program. HAZ-5: All land management personnel shall attend an Army-sponsored military munitions safety debriefing, prior to the commencement of any ground-disturbing habitat management activity. <i>Impact reduced to less-than-significant level with mitigation.</i>
HAZ-9: Cause a potential hazard due to inundation by seiche, tsunami, or mudflow.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.10 Hydrology & Water Quality			
WTR-1: Potential to violate any water quality standard or waste discharge requirement, substantially degrade surface or groundwater quality, or substantially alter drainage patterns.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.11 Land Use & Planning			
LUP-1: Physically divide an established community.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
LUP-2: Conflict with plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect.	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures AQ-1 through AQ-4 and PS-1. <i>Impact reduced to less-than-significant level with mitigation.</i>
LUP-3: Conflict with any applicable habitat conservation plan or natural community conservation plan.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
4.12 Noise			
NOISE-1: Exposure of noise-sensitive land uses to temporary increases in noise levels.	PAA = PS RTA = PS	PAA = PS RTA = PS	NOISE-1: Implement noise-reducing practices for all habitat management activities that have the potential to exceed ambient noise levels within 300 feet of a sensitive receptor. <i>Impact reduced to less-than-significant level with mitigation.</i>
NOISE-2: Potential permanent exposure of noise-sensitive land uses to noise levels in excess of established standards.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
NOISE-3: Potential increases in traffic noise levels.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.13 Public Services			
PS-1: Increased demand for police and fire protection services that would result in the construction of new or altered police or fire facilities.	PAA = PS RTA = PS	PAA = PS RTA = PS	PS-1: Notify all fire protection service providers in the vicinity of the former Fort Ord before each scheduled prescribed burn to be conducted as a vegetative management activity. <i>Impact reduced to less-than-significant level with mitigation.</i>
PS-2: Increase the use of existing neighborhood and regional parks or other recreational facilities that would result in, or accelerate, the substantial physical deterioration of the facility, or result in the construction or expansion of recreational facilities that would have a physical adverse effect on the environment.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
PS-3: Increased demand for schools that would result in the construction of new or altered facilities.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.14 Socioeconomics and Environmental Justice			
SOCIO-1: Affect employment, industry, or commerce, including requiring the displacement of business or farms.	PAA = B RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
SOCIO-2: Substantially affect property values or the local tax base.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
SOCIO-3: Cause a disproportionate effect on minority, low-income, elderly, disabled, transit-dependent, or other specific interest group(s).	PAA = PS RTA = PS	PAA = PS RTA = PS	Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1. <i>Impact reduced to less-than-significant level with mitigation.</i>
SOCIO-4: Cause an adverse effect on a minority or low-income area	PAA = PS	PAA = PS	Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
as defined by the EPA.	RTA = PS	RTA = PS	<i>Impact reduced to less-than-significant level with mitigation.</i>
SOCIO-5: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	PAA = NI RTA = NI	PAA = NI RTA = NI	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.15 Transportation & Circulation			
TRC-1: Construction Traffic.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
TRC-2: Transit Impacts.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
TRC-3: Construction Traffic Impacts.	PAA = PS RTA = PS	PAA = PS RTA = PS	TRC-1: Prepare a Traffic Control Plan per the standards of the appropriate jurisdiction. <i>Impact reduced to less-than-significant level with mitigation.</i>
TRC-4: Potential Conflicts with Transportation Plans, Programs, and Planned Projects.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
4.16 Utilities			
UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
UTL-2: Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
UTL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.
UTL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

Impact Statement	Significance before Mitigation ²		Mitigation Measures
	NEPA	CEQA	
the attainment of solid waste reduction goals.			
Cumulative Effects	PAA = LTS RTA = LTS	PAA = LTS RTA = LTS	No mitigation is required.

CHAPTER 1. INTRODUCTION

This document has been prepared as a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to analyze the effects of the Proposed Action, which is the issuance of Federal and State incidental take permits (ITPs) by the U.S. Fish and Wildlife Service (USFWS) under Section 10(a)(1)(B) of the Federal Endangered Species Act of 1973 (ESA), and by the California Department of Fish and Wildlife (CDFW) under Section 2081 of the California Fish and Game Code (CFG Code) in compliance with the California Endangered Species Act of 1984 (CESA). The issuance of the ITPs would authorize take of the State and Federally listed species base-wide as identified in the Draft Fort Ord Multi-Species Habitat Conservation Plan (Draft Fort Ord HCP or Draft HCP) during the course of the redevelopment of the former Fort Ord military base. The Fort Ord Reuse Authority (FORA) and its member jurisdictions have prepared the Draft Fort Ord HCP as a required component of the application for the Federal ITP. The USFWS is acting as lead agency under National Environmental Policy Act (NEPA) and FORA is acting as lead agency under California Environmental Quality Act (CEQA). This EIS/EIR analyzes the potential impacts of approving the Proposed Action, including the issuance of the ITPs by the USFWS and CDFW, approval and implementation of the Draft HCP, and a reasonable range of alternatives. Several alternatives, including the No Action Alternative, are considered and analyzed, representing varying levels of conservation and impacts.

The purpose of this EIS/EIR is to inform agency decision makers of the significance of impacts from the Proposed Action on the human environment, as well as a reasonable range of alternatives that meet the purpose and need for the Proposed Action; and to inform and involve the public in the decision-making process. This EIS/EIR has been prepared in accordance with the NEPA of 1969, as amended (42 U.S.C. 4321 et seq.); NEPA regulations (40 Code of Federal Regulations [CFR] parts 1500-1508); the Council on Environmental Quality (CEQ) regulations and guidelines on implementing NEPA; the USFWS NEPA Reference Handbook; and the CEQA Statute and Guidelines.

1.1. OVERVIEW OF THE DRAFT FORT ORD HCP

In April 1997, the revised *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord* (HMP) was issued by the U.S. Army Corps of Engineers (USACE) on behalf of the U.S. Department of the Army (Army). The HMP established a comprehensive species and habitat conservation program as part of the closure, disposal, and reuse of former Fort Ord lands. While the HMP provides a framework for species and habitat conservation on former Fort Ord, it does not meet USFWS or CDFW standards or requirements for an application soliciting the issuance of ITPs. The Draft Fort Ord HCP is intended to fulfill those requirements by combining key components of the HMP with additional elements to assure compliance with the ESA (16 U.S.C. §§ 1531–1544) as amended and the CESA (CFG Code §§ 2050 et seq.) as amended; thereby serving as a basis for issuance of base-wide ITPs by USFWS and CDFW.

The project addressed in the Draft Fort Ord HCP is the reuse and development of the former Fort Ord military base, with an emphasis on the base-wide preservation and management of habitat. Incidental take of Federal and State listed species is anticipated to occur as the former base is redeveloped consistent with the approved Fort Ord Reuse Plan (Reuse Plan) (EMC and EDAW, 1997). The Reuse Plan and the HMP assume a program of development and redevelopment on former Fort Ord. Under the Draft Fort Ord HCP, base reuse would result in the rehabilitation and construction of roads, utilities, and other infrastructure to support new research/educational, residential, commercial, light industrial, recreational, and other development. As a result, 4,241 acres of existing developed areas on the former base would be redeveloped and about 5,051 acres of existing vegetation and wildlife habitat would be removed for new development. Impacts to HCP species and natural communities resulting from base redevelopment would be minimized and mitigated through the preservation and management of habitat on 18,540 acres (67%) (14,645 acres of Federal land and 3,895 acres of non-Federal land) of the former base.

Four animal species and four plant species that are listed, designated species of special concern, and/or ranked as rare by the California Native Plant Society (CNPS) are proposed as HCP species under the Draft Fort Ord HCP (**Table 1-1**). Management activities such as weed control, fencing, and burning would also be included as proposed covered activities in the Draft Fort Ord HCP (please refer to Chapter 2, *Proposed Action and Alternatives*, for details). The requested permit term is 50 years.

Table 1-1. Draft Fort Ord HCP Plant and Animal Species and Incidental Take Coverage Requested

Scientific Name	Common Name	Status ^a		Incidental Take Coverage Requested	
		State/CNPS CRPR	Federal	Section 2081	Section 10(a)(1)(B)
Plants					
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	sand gilia	T/1B.2	E	✓	b
<i>Piperia yadonii</i>	Yadon's piperia	1B.1	E		b
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	1B.1	T		b
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	seaside bird's beak	E/1B.1		✓	✓
Animals					
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly		E		✓
<i>Charadrius nivosus</i> spp. <i>nivosus</i>	western snowy plover	SSC	T		✓
<i>Ambystoma californiense</i>	California tiger salamander	T	T	✓	✓
<i>Rana draytonii</i>	California red-legged frog	SSC	T		✓
^a Status: State E = State listed as endangered. T = State listed as threatened. SSC = California species of special concern. Federal E = Federally listed as endangered. T = Federally listed as threatened. CNPS California Rare Plant Rank (CRPR) 1B = Rare or endangered in California and elsewhere. 4 = Limited distribution. Threat Ranks 0.1 Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat) 0.2 Moderately threatened in California (20-80% of occurrence threatened/moderate degree and immediacy of threat) ^b Under the ESA, there is no prohibition for take of plants on non-Federal lands. Section 10 ITPs are only required for wildlife and fish species. However, the Section 7(a)(2) prohibition against jeopardy applies to plants, and issuance of a Section 10(a)(1)(B) ITP cannot result in jeopardy to a listed plant species. Some plants included as HCP species in the Draft Fort Ord HCP are covered in order to meet regulatory obligations under the ESA Section 7 and to comply with the CESA.					

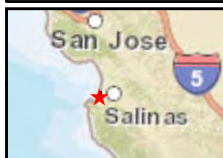
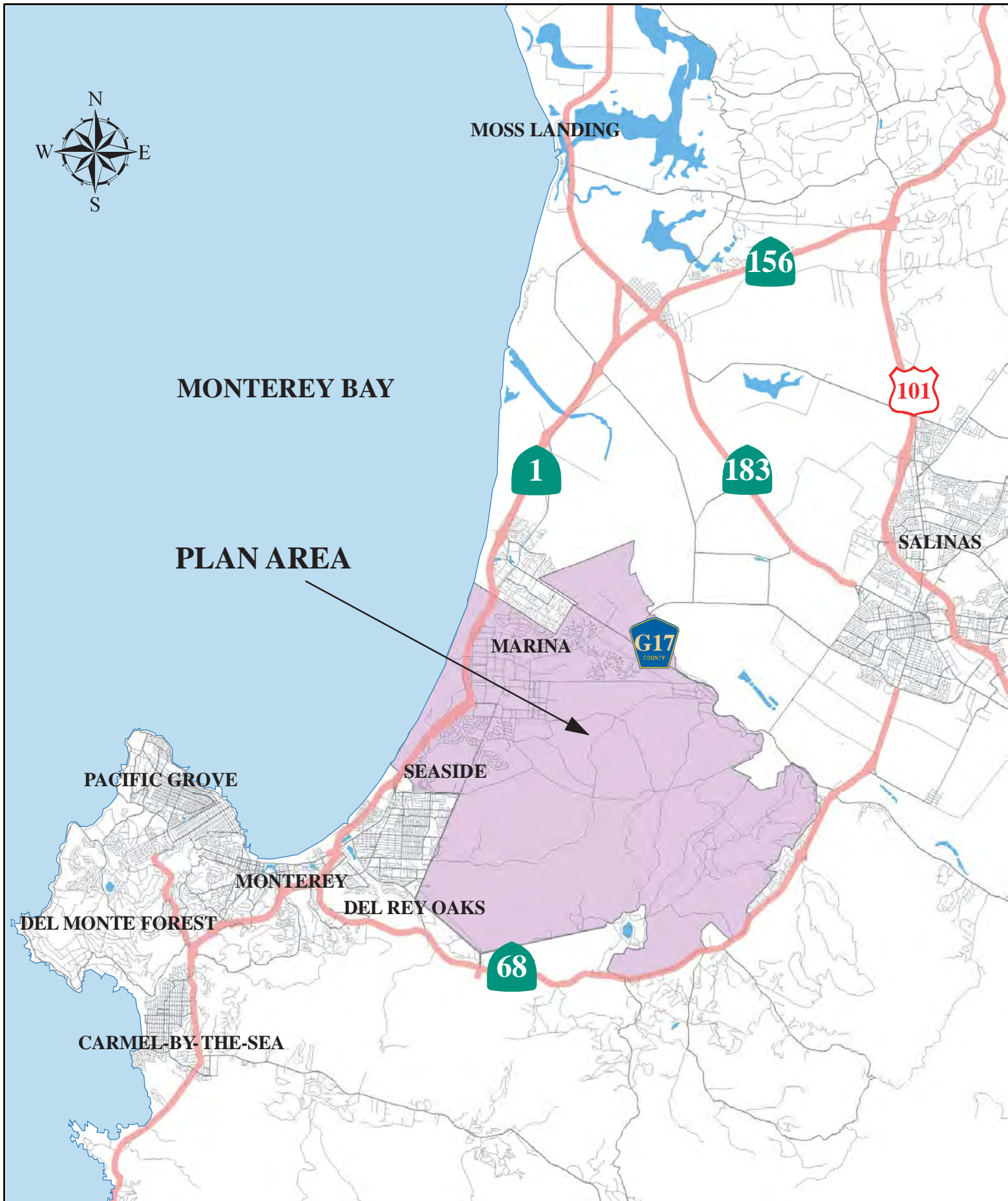
1.2. PLAN AREA

The area covered by the Draft Fort Ord HCP, referred to herein as the "Plan Area," is the former Army facility known as Fort Ord and includes areas of development and areas of habitat preservation. The 27,832-acres (approximately 44 square miles) Plan Area is situated along the Pacific Ocean, approximately 100 miles south of San Francisco, California (**Figure 1-1**). The site is in the northern portion of the County of Monterey; approximately 72% of the former base lies within unincorporated areas of the County of Monterey, about 15% is within the City of Seaside, about 12% is within the City of Marina, about 1% is within the City of Del Rey Oaks, and less than 0.5% is within the City of Monterey (**Figure 1-2**). Sand City shares a portion of its boundaries with the Plan Area.

1.3. PERMITTEES

Permittees would include the following agencies and organizations with local land use authority and/or jurisdiction over recreational, educational, and water resources on former Fort Ord under California State law; these entities also qualify for lead agency status under CEQA:

- FORA,
- California Department of Parks and Recreation (State Parks),
- Regents of the University of California (Santa Cruz Campus) (UC),
- County of Monterey (County),



Title: **Regional Map**

File: Regional Map.pdf

Date: 4/19/2012

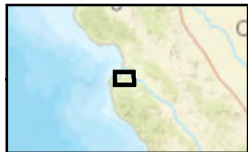
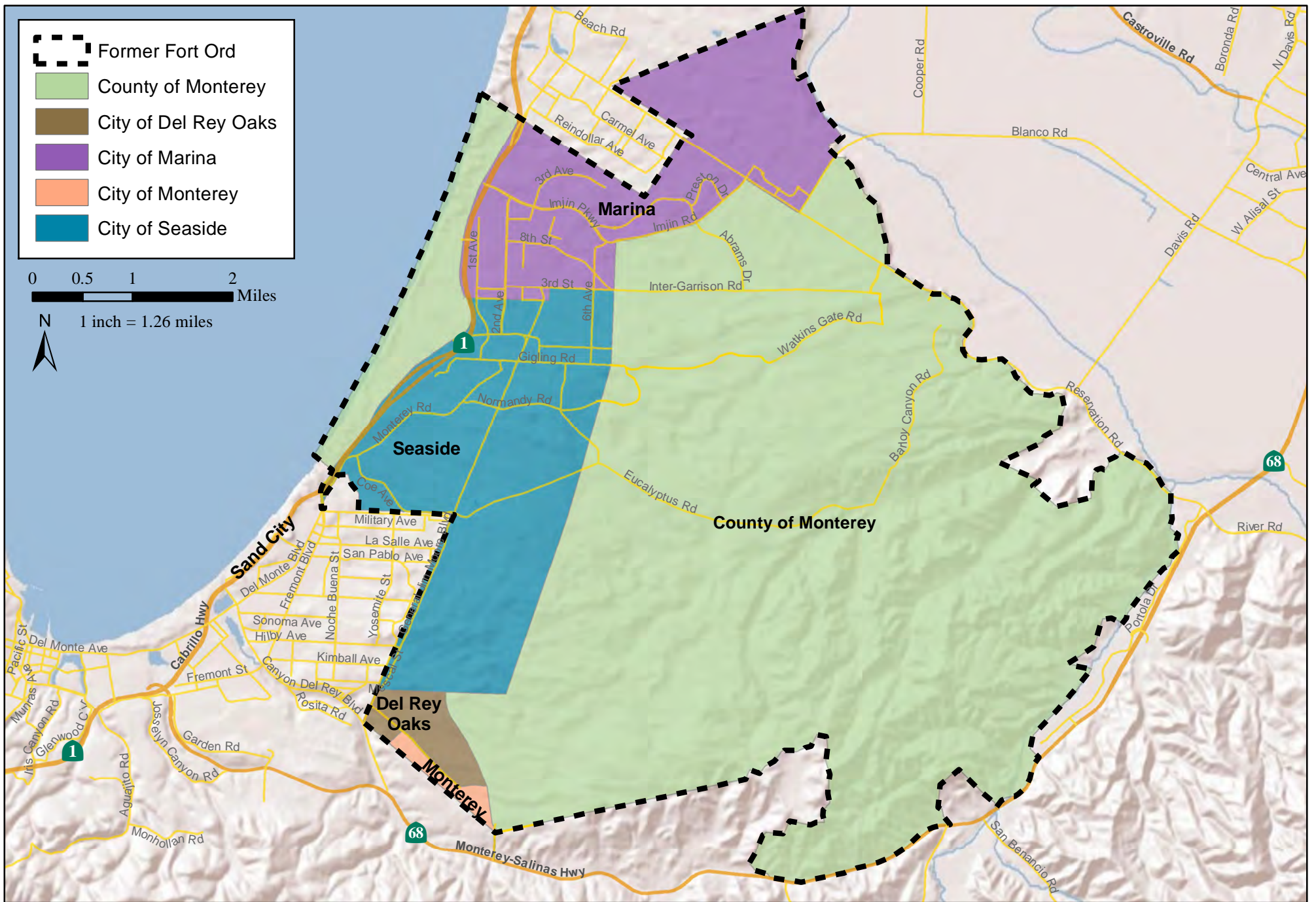
Scale: N/A

Project: 2444



Monterey | San Jose
Denise Duffy and Associates, Inc.
 Environmental Consultants Resource Planners
 947 Cass Street, Suite 5
 Monterey, CA 93940
 (831) 373-4341

Figure
1-1



Title: **County and City Boundaries within the Plan Area**

File: County&CityBoundariesWithinPlanArea.mxd

Date: 08-31-17

Scale: 1 inch = 1.26 miles

Project: 2444



Monterey | San Jose
Denise Duffy and Associates, Inc.
 Environmental Consultants Resource Planners
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 Monterey, CA 93940
 (831) 373-4341

Figure
1-2

- City of Marina (Marina),
- City of Seaside (Seaside),
- City of Del Rey Oaks (Del Rey Oaks),
- City of Monterey (Monterey),
- Board of Trustees of California State University (on behalf of the Monterey Bay Campus) (BOT/CSUMB),
- Monterey Peninsula College (MPC),
- Monterey Peninsula Regional Park District (MPRPD),
- Marina Coast Water District (MCWD), and
- Fort Ord Regional Habitat Cooperative (Cooperative) created by the Permittees listed above to implement the Draft Fort Ord HCP (please refer to Section 1.3.1, *Role of the Fort Ord Regional Habitat Cooperative*, below and Section 7.2, *Implementing Structure* in the Draft Fort Ord HCP, for details).

These jurisdictions, organizations, and agencies are requesting to be the Permittees under one non-severable ESA Section 10(a)(1)(B) ITP and one non-severable CESA Section 2081 permit that would provide authorization for take that occurs as a result of implementing covered activities within their respective jurisdictions (please refer to Chapter 2, *Proposed Action and Alternatives*). An HCP Joint Powers Authority (JPA) (please refer to Appendix I of the Draft HCP), called the Fort Ord Regional Habitat Cooperative (Cooperative), would be formed prior to permit issuance. The Cooperative would coordinate and track HCP activities required by the permits and would evaluate the consistency of covered activities with the terms of the HCP. Permittees would adopt HCP implementing ordinances or policies before permit issuance. However, the Permittees would ultimately be responsible for compliance with all the terms and conditions of the HCP's permits and for the performance of the Cooperative.

1.3.1. Role of the Fort Ord Regional Habitat Cooperative

FORA has been responsible for base-wide coordination of HMP requirements, serving as the primary link between local jurisdictions, regulatory agencies, other decision makers, and the general public. For the Draft Fort Ord HCP, FORA's authority and responsibilities would be transferred to the Cooperative, a JPA. The Cooperative would arrange for (and fund through an endowment) coordinated management of habitat reserve lands transferred to the County, Marina, MRPD, and MPC. The Cooperative would enter into specific agreements with UC and others for cost sharing and reimbursement agreements for HCP required management activities. The Cooperative would also arrange for and fund base-wide HCP species monitoring for all Habitat Management Areas (HMAs) (please refer to Chapter 2, Section 2.3.3.2. *Draft Fort Ord HCP Land Use Designations*, for more details regarding the HMAs) and track base reuse and development to assure that mitigation and conservation measures are being implemented in accordance with the Stay Ahead Provision (please refer to Section 7.6, *Stay Ahead Provision*, of the Draft Fort Ord HCP for details). The Cooperative would prepare and submit annual reports documenting HCP implementation and permit compliance to the USFWS and CDFW (please refer to Section 7.9.3, *Reporting*, of the Draft Fort Ord HCP for details).

1.3.2. Role of the Bureau of Land Management

On March 22, 1995, the Army entered into a Memorandum of Understanding (MOU) with the BLM to define the procedures for the transfer of certain Fort Ord lands from the Army to BLM. Under the MOU, the Army and BLM affirmed that transfer of the Fort Ord lands to BLM would "facilitate implementation of key provisions of the [HMP] which was developed to assure that the disposal and reuse of Fort Ord lands are in compliance with the [ESA]." The agencies further affirmed that "timely transfer of the [Fort Ord] lands and subsequent implementation of the HMP are critical to assure that regulatory requirements of the [ESA] and the California Endangered Species Act do not stall or preclude economic redevelopment of Fort Ord and the subsequent economic recovery of the local communities." Under the MOU, BLM agreed to "be responsible for the implementation of the HMP...and to monitor HMP compliance." Subsequently, by Letter of Transfer (LOT) executed between the Secretaries of the Army and Interior, dated October 18, 1996, the Army transferred 7,212 acres of Fort Ord to BLM in accordance with applicable sections of the MOU and the

terms of the LOT. Among other commitments, BLM agreed in the LOT that “to the extent permitted under applicable law,” its “management of the [transferred Fort Ord lands] will be guided by the Biological Opinion and the HMP.”

Under the Federal Land Policy and Management Act (FLPMA), BLM undertakes a multi-tiered planning approach that generally includes Resource Management Plans (RMP) and step-down Activity-level and individual project implementation plans (collectively step-down plans). At all levels of planning, BLM engages in the ESA Section 7 consultation with USFWS unless BLM determines a proposed action would have no effect on a listed species or its designated critical habitat. BLM has followed that process to date in managing the transferred Fort Ord lands. Subsequent to the execution of the MOU and LOT with the Army, BLM developed and approved the RMP and various step-down plans prepared by the BLM Hollister Field Office, and USFWS has reviewed those plans under Section 7 of the ESA. The RMP and associated plans as they apply to the transferred Fort Ord lands have been guided by and are consistent with the requirements of the HMP, 1993 Biological Opinion (BO) (as applicable), and the *Biological Opinion for Bureau of Land Management Ongoing Activities on Fort Ord Public Lands* (1-8-04-F/C-22) dated December 30, 2005 (2005 BLM BO). As part of the RMP process, BLM designated the transferred Fort Ord lands as an Area of Critical Environmental Concern (ACEC) in recognition, in part of their significant biological resources. This ACEC was specifically designated to protect unique biological resources, including maritime chaparral, grassland, vernal pool habitats and special status species, in addition to considerations for public safety related to previous military operations. The approval of a resource management plan constitutes formal designation of an ACEC and the RMP is required to include the general management practices and uses, and mitigating measures, identified to protect the designated ACEC. On April 20, 2012, the President of the United States established the Fort Ord National Monument (FONM), which covers all of 14,645 acres of BLM’s transferred lands and its future lands (please refer to Section 1.9.3, *Role of Bureau of Land Management*, in the Draft HCP).¹

Future management, monitoring, and restoration of the Fort Ord lands transferred to the BLM is an important element of the conservation strategy of the Draft HCP. BLM has a special role in assisting with implementation of the HCP, but it is not a permittee under the HCP, nor otherwise subject to the requirements of the HCP. BLM has been an active participant in the development of the Draft HCP to ensure that the transferred Fort Ord lands component of the Draft HCP is consistent with BLM’s approved Southern Diablo Mountain Range and Central Coast of California RMP (August 31, 2007) and is compatible with BLM’s governing statutory and regulatory authorities, including FLPMA, 43 USC 1701 et seq., and the National Monument designation. BLM has agreed to cooperate with the Cooperative to allow possible additional mitigation measures on the FONM in conformance with Federal law. Under the Federal Section 10 ITP, only those additional mitigation measures implemented or funded by the Cooperative on the FONM would be credited to the Permittees. Mitigation credit for BLM’s current management activities would not be credited to Permittees for the Federal ITP. BLM’s current management activities and any BLM authorized additional mitigation measures would be credited to Permittees by CDFW for its Section 2081 ITP. However, under applicable Federal law, those activities and mitigation measures may change and are not permanent restrictions on use or obligations for use.

Accordingly, the BLM intends to implement the Draft Fort Ord HCP conservation strategy on the transferred Fort Ord lands to the extent the conservation strategy is consistent with BLM’s requirements in the RMP, step-down plans, the ACEC designation, national monument designation, the HMP and HMP MOU, and the LOT, and only to the extent allowed under governing law and regulation, including FLPMA, NEPA (42 USC 4321 et seq.), and Omnibus Public Land Management Act of 2009 (OPLMA). Nothing in the Draft Fort Ord HCP will or shall be in the future interpreted as superseding BLM’s requirements under the RMP, its step-down plans, national monument designation, ACEC designation, HMP, or any requirements of BLM’s governing law and regulation, including FLPMA, NEPA, and OPLMA. Under Federal law, land use plans and step-down or implementation plans may be modified over time. In addition, Congress may modify the FONM designation or other requirement of Federal land management. Nothing in the HCP may be interpreted as impacting the ability of the Department of the Interior, BLM, or Congress in making these modifications.

¹ There is a difference between the deeded acres of 14,658, and the acreage calculated using geographical information system (GIS) layers. To be consistent with the environmental impact analysis conducted in GIS, this document uses 14,645 acres.

As the RMP and step-down or implementation plans are updated and refined periodically in the future, BLM intends to update and refine such plans in a manner compatible with the conservation strategy of the Draft HCP to the maximum extent BLM finds consistent with Federal law. BLM recognizes and acknowledges its continuing duty to comply with the ESA in managing the transferred Fort Ord lands. BLM intends to continue to manage the Fort Ord transferred lands in a manner compatible with the 1993 BO and 2005 BLM BO, as it may be updated or revised based on changes in BLM management and with the RMP, step-down and project implementation plans, as they may be updated or revised, and in a manner consistent with the ACEC and national monument designations for such lands.

1.4. RELATIONSHIP BETWEEN DRAFT HCP AND EIS/EIR

The Proposed Action analyzed in this EIS/EIR is based on the Draft Fort Ord HCP, including the described Plan Area, purpose and objectives, covered species, covered activities, and take assessment. However, in accordance with NEPA and CEQA, other sensitive species that may be affected by permit issuance are addressed in this EIS/EIR in addition to the covered species identified in the Draft HCP. The alternatives analysis in this EIS/EIR differs from the alternatives analysis in the Draft HCP in that this EIS/EIR focuses on analyzing a reasonable range of alternatives that may result in more, less, similar, or different impacts on the environment as a result from the Proposed Action or alternatives; whereas the focus of the alternatives analysis in the Draft HCP are those reasonable alternatives that may result in a reduction of take of covered species. Additionally, this EIS/EIR evaluates potentially significant effects on the environmental resources that may occur as a result of the Proposed Action or alternatives; the Draft HCP impact assessment addresses the impacts to covered species only as a result of implementation of the Draft HCP.

For all potentially significant impacts, the EIS/EIR identifies mitigation measures where feasible to reduce those impacts to a less-than-significant level. HCPs are required as part of a Federal ITP application and must contain the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the HCP is to be funded. In accordance with Federal ITP issuance requirements, the Draft Fort Ord HCP contains Avoidance and Minimization Measures (AMMs) and Mitigation Measures (MMs), which were developed to avoid and minimize impacts from covered activities and mitigate for impacts that cannot be avoided. AMMs are actions associated with covered activities that avoid and/or minimize impacts on the covered species. The implementation of AMMs is directly tied to take authorizations under the ESA and the CESA. These actions are typically best management practices to implement the covered activities. AMMs are detailed in Section 5.4, *Measures to Avoid and Minimize Impacts*, of the Draft Fort Ord HCP. MMs are conservation actions designed to restore, enhance, preserve, and/or compensate for any residual impacts on HCP species. Mitigation measures are detailed in Section 5.5, *Measures to Mitigate Unavoidable Impacts*, of the Draft Fort Ord HCP. Both AMMs and MMs are required to meet criteria for issuance of Federal and State ITPs. In some instances, and where appropriate, this EIS/EIR identifies when AMMs and MMs may be implemented to reduce impacts to other environmental resources (e.g., erosion control, air quality, water quality, etc.).

1.5. NEPA AND CEQA

1.5.1. National Environmental Policy Act

NEPA requires Federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic, interdisciplinary approach. Under NEPA, Federal agencies are required to consider and publicly disclose the impacts of their actions on the human environment. NEPA applies to all Federal agencies on their actions involving implementation, authorization, regulation, or funding. With the exception of Federal actions that are categorically excluded from NEPA documentation, NEPA requires that Federal agencies prepare Environmental Assessments (EAs) or EISs to analyze impacts of their proposed action and a reasonable range of alternatives prior to making decisions, and to involve the public in the decision-making process. The CEQ, which was established along with NEPA, has adopted regulations and guidance that provide general procedures for Federal agencies to follow when preparing these documents.

Under NEPA, a Federal agency is required to prepare an EIS for legislation and other major Federal actions “significantly affecting the quality of the human environment.” For the Draft Fort Ord HCP, as the lead agency under NEPA, the USFWS has determined that the issuance of the Federal ITP under Section 10(a)(1)(B) of the ESA constitutes a Federal

action that may significantly affect the quality of the human environment, and is thus preparing this EIS. This Draft EIS/EIR has been prepared as a result of the USFWS determination and accompanies the Draft HCP.

1.5.2. California Environmental Quality Act

Similar to NEPA, CEQA was conceived primarily as a means to require public agency decision makers to document and consider the environmental implications of their actions. CEQA applies to all government agencies at all levels in California, including local agencies, regional agencies, and State agencies, boards, and commissions. Unlike NEPA, CEQA is not considered a “procedural” statute as CEQA contains a substantive mandate that public agencies refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can avoid or reduce those impacts. The California Resource Agency issued the first set of CEQA Guidelines in 1973, and these guidelines are amended at least every two years to describe both the specific statutory mandates of CEQA and interpretations of the statute resulting from judicial decisions.

Under CEQA, a public agency is required to prepare an EIR whenever the approval of a proposed project may cause a significant adverse effect on the environment. FORA, as the lead agency under CEQA, has determined that the Draft Fort Ord HCP may result in a significant impact on the environment, and, therefore, this EIR is being prepared. This Draft EIS/EIR has been prepared as a result of FORA’s determination and accompanies the Draft HCP. The action by each Permittee to adopt the Draft Fort Ord HCP is subject to CEQA. CDFW’s issuance of a Section 2081 ITP is also an action that is also subject to CEQA. As such, the Permittees and CDFW are responsible agencies, which are agencies other than the lead agency that has a legal responsibility for carrying out or approving a project.

1.5.3. Joint NEPA/CEQA Document

When a project is subject to both NEPA and CEQA review, State and local agencies are encouraged to cooperate with Federal agencies in the environmental process, including joint planning, research, hearings, and preparation of environmental documents. As the Federal lead agency, the USFWS is responsible for compliance under NEPA, and as the State lead agency, FORA is responsible for compliance under CEQA. This document has been prepared as a joint EIS/EIR in compliance with NEPA and CEQA. A joint EIS/EIR must satisfy the procedural and content requirements of both NEPA and CEQA, with a goal of minimizing the need for costly duplicative environmental reviews by many agencies and streamlining the environmental review process by complying with both laws with a single document.

Generally, NEPA and CEQA contain many similar terms and concepts. For example, the term and concept of lead agency are the same under NEPA and CEQA. However, NEPA defines a Federal undertaking as a “proposal” for “action,” while CEQA uses the term “project.” Similar to CEQA’s definition of a project, an action under NEPA includes policies, rules, regulations, plans, programs, and specific projects, including private undertakings requiring Federal agency permits or regulatory decisions. However, some terms may appear similar, but they have important differences in concept. One example is “cooperating agency.” Under NEPA, a cooperating agency is a Federal agency other than the lead agency that is involved with the preparation of the EIS with jurisdiction over the project or with special expertise regarding impacts of the action. The cooperating agency under NEPA is broader than a “responsible agency” under CEQA. A responsible agency is only those State or local agencies that issue permits or provide funding for the project. A cooperating agency is expected to participate in the preparation of the EIS when requested by the lead agency, but a responsible agency generally participates through the commenting process.

This EIS/EIR generally uses NEPA terminology; this document uses the term “Proposed Action” instead of “Proposed Project” to refer to the Draft Fort Ord HCP and all Federal, State, and local agency actions or approvals that would be issued or undertaken based on it. **Table 1-2** shows the similarities in terminology between NEPA and CEQA.

As stated previously, the USFWS is the lead agency responsible for compliance under NEPA, and FORA is the lead agency with responsibility for compliance under CEQA. The Permittees also have responsibility for implementing or approving the Draft HCP and are considered responsible agencies. Although the Cooperative would be comprised of other Permittees, the Permittees themselves must make decisions and finding after FORA. All lead and responsible agencies must make findings that they have independently review the EIS/EIR and that it is adequate for decision making.

Table 1-2. Similarities in Terminology between CEQA and NEPA

CEQA Term	NEPA Term
Lead Agency	Lead Agency
Responsible Agency	Cooperating Agency
Environmental Impact Report	Environmental Impact Statement
Notice of Preparation	Notice of Intent
Proposed Project	Proposed Action
No Project Alternative	No Action Alternative
Environmentally Superior Alternative	Environmentally Preferable Alternative
Project Objectives	Purpose and Need
Environmental Impacts	Environmental Consequences
Environmental Setting	Affected Environment
Notice of Completion	Notice of Availability
Findings	Record of Decision

1.6. PURPOSE & NEED AND GOALS & OBJECTIVES

NEPA (40 CFR 1502.13) requires an EIS to briefly describe the underlying purpose and need for the Federal agency's proposed action. CEQA (Section 15124[b]) similarly requires an EIR to contain a statement of the goals and objectives of the project proponents. The following section presents the NEPA purpose and need, and CEQA goals and objectives for the Proposed Action, as identified by the USFWS and FORA.

1.6.1. Purpose and Need for the Proposed Action (NEPA)

The purpose of the USFWS's Proposed Action is to:

- Respond to FORA's application for an ITP for the proposed HCP Species related to activities that have the potential to result in take, pursuant to the ESA Section 10(a)(1)(B) and its implementing regulations and policies.
- Protect, conserve, and enhance the HCP Species and their habitat for the continuing benefit of the people of the United States.
- Provide a means and take steps to conserve the ecosystems depended on by the HCP Species.
- Contribute to the long-term survival of HCP Species through protection and management of the species and their habitat.
- Ensure compliance with the ESA, NEPA, and other applicable Federal laws and regulations.

The need for the action is based on the potential that the covered activities proposed by the Permittees (please refer to Chapter 2, *Project Action and Alternatives*) on property under their jurisdiction within the Plan Area could result in the incidental take of species currently listed under ESA, as well as species that are not currently listed but may become listed during the permit term. As a result, FORA has applied for an ITP pursuant to Section 10(a)(1)(b) under the ESA.

1.6.2. Goals and Objectives (CEQA)

The following are the goals and objectives of the Proposed Action:

- Enable the Permittees to reasonably and efficiently implement their respective general, specific, and master plans, which collectively represent the foreseeable development on the former Fort Ord pursuant to the adopted Reuse Plan, as modified.
- Protect and enhance populations of the HCP species and assure their long-term viability by preserving and managing natural communities that support them within the Plan Area.
- Provide streamlined permitting process resulting in improved conservation.
- Provide a basis for permits and authorizations necessary to lawfully take certain native species of plants and wildlife, includes species that are listed as threatened or endangered pursuant to the terms of ESA and/or CESA.

- Protect the natural resources on the former Fort Ord while providing open space for public recreation and educational opportunities.
- Provide a comprehensive means to coordinate and standardize mitigation and compensation requirements of ESA, CESA, CEQA, NEPA, and other applicable laws and regulations relating to biological and natural resources within the Plan Area so that public and private actions will be governed equally and consistently, thereby reducing delays, expenses, and regulatory duplication.

These goals would be partially achieved by the designation of 18,540 acres (over 66%) of the 27,832-acre installation as habitat reserve lands in HMAs. Large, contiguous, and biologically diverse habitat parcels are being transferred to natural resource management agencies including BLM, State Parks, and the University of California Natural Reserve System (UC/NRS), with clear missions regarding habitat protection and management. Additional reserve lands transferred to the County, Marina, MPC, and MPRPD would be managed by the Cooperative, whose governing body is composed of designated officials from each of the Permittees.

1.7. DECISIONS TO BE MADE

Implementation of the Draft HCP would require permits and approvals from the lead agencies as well as public agencies other than the lead agencies. This section describes the uses of this EIS/EIR by the lead agencies and the cooperating and responsible agencies.

In response to the recommendations of USFWS and CDFW, and in order to benefit from direct authorizations from both agencies, the Permittees (please refer to Section 1.3, *Permittees*, above) would submit one joint application for incidental take of all HCP species to USFWS and one joint application to CDFW for incidental take of the three State-listed HCP species. The Draft Fort Ord HCP would accompany both applications. A summary of all the HCP participants and their roles can be found in **Table 1-3**.

Table 1-3. Roles of HCP Participants

HCP Participants	Abbreviation or Acronym	Role	
		Permittee	HMA Manager
Fort Ord Reuse Authority	FORA	X	
California Department of Parks and Recreation	State Parks	X	X
Regents of the University of California (Santa Cruz Campus)	UC	X	
University of California Natural Reserve System ^a	UC/NRS	^a	X
University of California Monterey Bay Education, Science and Technology Center ^a	UC MBEST	^a	
County of Monterey ^b	County	X	^b
City of Marina ^b	Marina	X	^b
City of Seaside	Seaside	X	
City of Del Rey Oaks	Del Rey Oaks	X	
City of Monterey	Monterey	X	
Board of Trustees of California State University (on behalf of the Monterey Bay Campus)	BOT/CSUMB	X	
Monterey Peninsula College ^b	MPC	X	^b
Monterey Peninsula Regional Park District ^b	MPRPD	X	^b
Marina Coast Water District	MCWD	X	
Fort Ord Regional Habitat Cooperative	Cooperative	X	X
Bureau of Land Management	BLM		X

^a UC/NRS and UC MBEST are under the authority of the Regents of the University of California and, therefore, are not named separately in the permit applications; however, due to their distinct roles as HCP participants, UC/NRS and UC MBEST are identified here separately and throughout the HCP.

^b These HCP Participants are recipients of parcels designated as HMAs; however, the Cooperative will be responsible for the implementation of all HCP required actions on their HMA parcels.

1.7.1. U.S. Fish and Wildlife Service

After completing the public notice period, addressing any comments received, and completing related decision documents, the USFWS will make a determination on permit issuance. The USFWS will make a decision to either issue

the permit based on the Draft Fort Ord HCP, select the No Action Alternative, or choose among the other alternatives that meet the purpose and need for the Proposed Action.

1.7.1.1. Permit Issuance Criteria

The USFWS is the responsible Federal agency for permitting of incidental take. The USFWS may opt to issue ITPs as conditioned on implementation of the proposed Draft HCP, issue ITPs conditioned on implementation of the proposed Draft HCP plus additional measures as specified by the USFWS, or deny submitted permit applications. Section 10(a)(2)(B) of the ESA and the ESA's implementing regulations (50 CFR 17.22[b][2][i]) contain statutory issuance criteria for an ITP. Criteria for issuance of ITPs include:

- The taking of Federally listed fish and wildlife species will be incidental to otherwise lawful activities.
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.
- The applicant will ensure adequate funding for the HCP and procedures to deal with changed circumstances, including adequate funding to address such changes, will be provided.
- The taking will not appreciably reduce the likelihood of survival or recovery of the species.
- The applicant will assure that other USFWS measures that may be required will be provided.

Under Section 10(a)(2)(A), the applicant must prepare and submit a conservation plan which contains mandatory elements, including:

- The impacts likely to result from the taking.
- Measures that will be taken to monitor, minimize, and mitigate impacts; identification of available funding for these measures; and procedures that would be used to deal with unforeseen circumstances.
- Alternatives considered to the proposed taking of the species, and reasons why these alternatives are not proposed to be used.
- Additional measures that the USFWS may require as necessary or appropriate for purposes of the plan.

The determination as to whether the criteria have been met would be described in the USFWS's permit decision package, which includes a BO prepared pursuant to Section 7 of ESA (please refer to Section 1.7.1.2 below), a final NEPA document, and Findings prepared pursuant to Section 10 of ESA. These documents are produced and the permit decision package compiled after the NEPA process is completed. The permit decision package would contain the rationale behind the USFWS's decision to either approve or deny the permit application.

1.7.1.2. Endangered Species Act Section 7 Consultation Process

Issuance of an ITP is also a Federal action subject to Section 7 of the ESA. Section 7(a)(2) requires all Federal agencies, in consultation with the USFWS, to ensure that any action "authorized, funded, or carried out" by any such agency "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of critical habitat. For the Draft Fort Ord HCP, because the USFWS is considering issuing the authorization, it will conduct an internal consultation. The provisions of Section 7 and Section 10 are similar; however, Section 7 and its regulations introduce several considerations into the Draft Fort Ord HCP process that are not explicitly required by Section 10, including an analysis of indirect effects, effects on Federally listed plants, and effects on critical habitat. The results of this internal consultation will be documented in a BO, which will be completed before the USFWS's decision to either approve or deny the permit application.

1.7.1.3. National Environmental Policy Act

Because the issuance by the USFWS of an ITP under Section 10 of the ESA constitutes a Federal action, the USFWS must comply with the NEPA. NEPA requires Federal agencies to include in their decision-making process appropriate and careful consideration of all environmental effects of a proposed action and a reasonable range of alternatives pursuant to the Federal agency's purpose and need. Documentation of the environmental impact analysis and efforts to avoid or

minimize the adverse effects of proposed actions must be made available for public notice and review. For the Draft Fort Ord HCP, the USFWS has determined that an EIS will be necessary to comply with NEPA. Following the completion of the EIS, the USFWS will prepare, publicly notice, and sign a Record of Decision (ROD), which is a concise public record of the decision.

1.7.2. California Department of Fish and Wildlife

The CESA protects wildlife and plants listed as threatened and endangered by the California Fish and Game Commission (CFG Commission). The CESA prohibits the take of State-listed wildlife and plants and requires an ITP for authorization of take. The CFG Commission defines *take* as any action or attempt to “hunt, pursue, catch, capture, or kill.”

The Permittees will be applying for a Section 2081 ITP for those State-listed and candidate species for which the CDFW may authorize take; the Draft HCP is not a required component of the permit application as it is for the Federal ITP application process. However, the Draft Fort Ord HCP will provide a vehicle for describing and analyzing project effects as they pertain to such a permit to meet the permit issuance criteria. Under Section 2081, the CDFW can also authorize the take of species identified as candidates for listing.

1.7.2.1. Permit Issuance Criteria

The requirements for an application for an ITP under CESA are described in Section 2081 of the CFG Code and in final adopted regulations for implementing Sections 2080 and 2081. Sections 2081(b) and (c) of CESA allow the CDFW to issue an ITP for a State listed threatened and endangered species if specific criteria are met; these criteria are listed below and reiterated in Title 14 California Code of Regulations (CCR), Sections 783.2-783.8:

- The authorized take is incidental to an otherwise lawful activity;
- The impacts of the authorized take are minimized and fully mitigated;
- The measures required to minimize and fully mitigate the impacts of the authorized take: (a) are roughly proportional in extent to the impact of the taking on the species, (b) maintain the applicant’s objectives to the greatest extent possible, and (c) are capable of successful implementation;
- Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
- Issuance of the permit will not jeopardize the continued existence of a State-listed species.

The CDFW will review the application for consistency with the requirements of CESA, including compliance with CEQA. There is no required public noticing associated with Section 2081 permits apart from CEQA review. The CDFW will make a determination on the permit application, prepare a findings document, and may or may not issue a take authorization upon completion of CEQA review.

Incidental take of State-listed species can also be authorized under the Natural Community Conservation Planning Act (NCCPA) (CFG Code Section 2800). Although the Draft Fort Ord HCP includes many of the components and considerations of a Natural Community Conservation Plan (NCCP), the document is not a NCCP. A NCCP is typically larger in geographic scale than the proposed Plan Area and, generally, a NCCP implements broad-based, regional planning over multiple jurisdictions.

1.7.2.2. California Environmental Quality Act

CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies and requires the systematic identification of a project’s environmental impacts, mitigation (if feasible) of significant impacts, and the documentation of findings based on that evaluation prior to project approval.

FORA, as the CEQA lead agency, has determined that an EIR is required to comply with CEQA for the approval and implementation of the Draft Fort Ord HCP. The environmental impacts associated with permit issuance and the approval and implementation of the Draft Fort Ord HCP will be analyzed in this EIR. As the lead agency under CEQA, FORA

would be the first of the Permittees to make a decision to certify that the EIS/EIR impact analysis is adequate to provide CEQA compliance for its decision to approve the Draft HCP or other action alternative (please refer to **Table 1-3**). As the lead agency under CEQA, FORA may also need to make Findings of Fact and Statements of Overriding Considerations pursuant to CEQA if one or more significant effects associated with the approval of the Draft HCP are identified. FORA would also file a Notice of Determination (NOD) upon adopting the Draft HCP.

The action by each Permittee to adopt the HCP, JPA, and implementing ordinances or policies is subject to CEQA. As such, each of the 13 Permittees is a CEQA responsible agency and would be required to adopt the EIS/EIR and to make findings, pursuant to CEQA. A responsible agency can use the lead agency's EIR if it determines it is adequate in reaching a decision on the project. The Permittees would use the information and analysis in the EIS/EIR to aid in their decision to adopt the Draft HCP (i.e., approve the proposed Plan), sign the JPA, and implementing ordinances or policies. To implement the proposed Plan, the Permittees would rely on the land use authority provide through their general and master plans and zoning ordinances. The Permittees must adopt a local ordinance or policy to implement the proposed Plan enabling them to enforce the requirements and commitments of the adopted HCP. The Permittees would each file a NOD upon adopting the Draft HCP, JPA, and implementing ordinances or policies.

CDFW's issuance of a Section 2081 ITP is an action that is also subject to CEQA. CDFW will also act as a CEQA responsible agency and would be required to adopt the EIS/EIR, make findings pursuant to the EIS/EIR, and if adopted, would file a NOD (pursuant to CCR, Title 14, Section 15096).

1.8. PUBLIC INVOLVEMENT

1.8.1. Public Scoping and Comment

1.8.1.1. Notice of Intent/Notice of Preparation

Scoping involved in the EIS/EIR process is the process used to determine the focus and content of an EIS/EIR. During scoping periods there is solicitation for input on the potential topics proposed to be addressed in an EIS/EIR. Scoping also solicits input on the range of project alternatives and possible mitigation measures included in an EIS/EIR. The process of scoping can also assist in establishment of methods of assessment and in selecting environmental effects to be evaluated in detail in the EIS/EIR. Tools used in the scoping process typically include informal and formal stakeholder and interagency consultation, public scoping meetings, and publication of a Notice of Intent (NOI) and Notice of Preparation (NOP).

In order to solicit participation of responsible and coordinating Federal, State, and local agencies and of the general public in determining the scope of the environmental document, a NOI (pursuant to NEPA) and a NOP (pursuant to CEQA) were published. The NOI and NOP notified the public of the proposed Draft Fort Ord HCP, the intent to prepare a NEPA and CEQA document, identified the Plan Area and proposed HCP Species, and described the planning and public review processes. The NOI was published in the *Federal Register* on September 29, 2004 (69 FR 188: 58181-58183). The NOP was submitted to the California State Clearinghouse on June 20, 2005, and distributed to interested agencies, organizations, and members of the public. Publication and distribution of the NOI and NOP initiated the process of the public scoping for the environmental document. At the time the NOI and NOP were published, it had not been determined by the USFWS whether an EA or EIS would be prepared in compliance with NEPA. Based on public comments received and potential for significant effects, the USFWS decided that an EIS would be the appropriate level of NEPA documentation. Copies of the NOI and NOP can be found in **Appendix A**.

The 30-day scoping period for the proposed Draft Fort Ord HCP and environmental document closed on October 29, 2004, during which public comments were received on the NOI. Public scoping meetings in association with publication of the NOI were held during two different time periods on October 13, 2004, and were held in the FORA Conference Facility/Bridge Center, located at 13th Street, Building 2925, Marina, California.

In addition, a second scoping period was initiated with the submittal of the NOP on June 20, 2005, which extended until July 21, 2005, during which public comments were received. Two public scoping meetings were held regarding the NOP.

These meetings were held on July 11 and July 13, 2005, at the FORA Conference Facility/Bridge Center, located at 13th Street, Building 2925, Marina, California. Comment letters were received in response to both the NOI and NOP from numerous parties during the respective public scoping periods. Scoping comments and letters are included in their entirety in **Appendix A** and main topics raised are listed and described in Section 1.8.1.2, *Issues Raised During Public Scoping*, below.

1.8.1.2. Issues Raised During Public Scoping

Issues of concern related to the Proposed Action and environmental document were expressed by general public sources and governmental (local, regional, State, and Federal) sources during the scoping periods of the NOI/NOP. Key issues of concern that were identified relevant to the Draft Fort Ord HCP EIS/EIR include:

- Issues related to air quality, including impacts resulting from implementation of the Draft HCP (including prescribed burns and vehicle emissions), consistency with the Air Quality Management Plan, addressing the general conformity rule, and direct and indirect source emissions.
- Issues related to biological resources, including potential negative impacts from prescribed burns and mowing, invasion of non-native plant and animal species, adequacy of vegetation mapping, adaptive management, species to be analyzed in the EIS/EIR, potential impacts from domestic pets, habitat fragmentation, implementation of the vegetation management program and adequacy of funding, edge effects, and cumulative impacts.
- Issues related to referencing previous environmental and planning documents, and the relationship of the proposed Draft HCP to previous environmental documentation.
- Wildfire issues related to the installation of adequate fuelbreaks, frequency and intensity of proposed prescribed burns, risk to human safety and health, and potential of natural wildfires.
- Issues regarding the consideration and identification of the location(s) of proposed water supply and other water facility projects on the former Fort Ord and inclusion of these projects in the cumulative impact analysis.

All of the above-identified key public issues (as well as additional relevant issues identified in the comment letters in **Appendix A**) are discussed in the analysis of project effects included in this Draft EIS/EIR document. Any further comments received during the circulation of the Draft EIS/EIR will be addressed in the responses to comments section of the Final EIS/EIR.

Where a comment did not raise an environmental issue or the issue was considered outside of the scope for the Draft Fort Ord HCP, the issue was not included in the analysis for the EIS/EIR. The following issues were identified during the scoping period; however, it was determined that these issues reference actions that are beyond the scope of the Proposed Action and purpose and need/goals and objectives and, therefore, were not addressed in this EIS/EIR. In addition, these issues are associated with projects that are not currently proposed nor are they reasonably foreseeable in the future and, therefore, are not included in the cumulative impact analysis.

- Opposition to a 6,000-car parking lot planned by the Sports Car Racing Association of the Monterey Peninsula (SCRAMP) for Laguna Seca due to impacts to dune gilia and other sensitive species – requests information on project proposal and process.
- Concerns about proposed Blanco Road extension due to impacts to wildlife corridor and sand gilia – requests information on project proposal and process.
- Requests that the EIR consider the following:
 - Identification of preferred corridors for pipelines and other water facilities;
 - Coordination with other infrastructure such as roads; and
 - Designate preferred areas for water supply facility development; for areas not identified, create a process to allow case-specific review or mitigation measures to enable location of lower-impact water project components such as wells.

1.8.2. Draft EIS/EIR Public Review

In accordance with NEPA and CEQA, this Draft EIS/EIR, concurrently with the Draft Fort Ord HCP, will be circulated for a 45-day public review period. The public review period will be initiated with publication of a Notice of Availability (NOA), in compliance with NEPA and CEQA. In accordance with NEPA, the NOA will be published in the *Federal Register*. In accordance with CEQA, the Notice of Completion (NOC) will be submitted to the California State Clearinghouse, and distributed to interested agencies, organizations, and members of the public. The public comment period for this Draft EIS/EIR will extend for a period of 45 days from the announcement of the NOA in the *Federal Register* and posting of the NOA/NOC with the California State Clearinghouse.

A public hearing will be conducted on the Draft EIS/EIR during the public review period, in accordance with the requirements of NEPA and CEQA. The public hearing will provide the public with the opportunity to comment on the Draft EIS/EIR.

1.9. DOCUMENT ORGANIZATION

This EIS/EIR is divided into the following chapters and appendices:

- **Chapter 1, INTRODUCTION**, provides a brief overview of the Draft Fort Ord HCP and EIS/EIR; presents the purpose, need, and objectives of the Draft HCP; discusses the decisions to be made by the agencies and participating jurisdictions; describes the public involvement and the CEQA and NEPA process; and summarizes the organization of this EIS/EIR.
- **Chapter 2, PROPOSED ACTION AND ALTERNATIVES**, describes the Proposed Action and alternatives considered, and discusses the alternatives considered but eliminated from further consideration.
- **Chapter 3, AFFECTED ENVIRONMENT**, describes the current environmental setting for the resources addressed in the EIS/EIR, and includes a discussion of resources not considered in detail in the document.
- **Chapter 4, ENVIRONMENTAL CONSEQUENCES**, provides a brief introduction to the methods used to evaluate impacts, including the definition of significance levels, development of significance criteria, and approach and scope of the cumulative analysis; describes potential impacts of the Proposed Action and alternatives; and identifies mitigation measures when necessary.
- **Chapter 5, OTHER REQUIRED NEPA AND CEQA ANALYSES**, presents the other sections that are required under NEPA or CEQA, including significant and unavoidable impacts, short-term uses of the environment versus maintenance and enhancement of long-term productivity, irreversible and irretrievable commitment of resources/significant and irreversible environmental changes, and the environmentally preferable/superior alternative.
- **Appendix A, SCOPING MATERIALS**, includes the NOI, NOP, comments received during each public scoping period, and summary of comments received.
- **Appendix B, BIOLOGICAL RESOURCES**, includes species occurrence maps and special-status species tables.
- **Appendix C, TRAFFIC ANALYSIS**, includes traffic analysis prepared by Hatch Mott MacDonald.
- **Appendix D, CONSULTATION AND COORDINATION**, describes the consultation requirements and executive orders involved in the consultation and coordination of the EIS/EIR.
- **Appendix E, LIST OF PREPARERS**, lists the preparers and persons contacted during the preparation of the EIS/EIR.
- **Appendix F, ACRONYMS, ABBREVIATIONS, AND GLOSSARY**, lists the acronyms, abbreviations, and definitions of terms used in the EIS/EIR.
- **Appendix G, REFERENCES**, includes a bibliography of the references and persons cited in the EIS/EIR.

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CHAPTER 2. PROPOSED ACTION AND ALTERNATIVES

2.1. INTRODUCTION

This chapter describes the Proposed Action – the issuance of ITPs by the USFWS and CDFW, and implementation of the Draft Fort Ord HCP by the Permittees. The Draft Fort Ord HCP is incorporated by reference and available for review under separate cover.¹ In accordance with NEPA and CEQA, this chapter also describes a reasonable range of alternatives to the Proposed Action evaluated in the EIS/EIR, the alternatives selection process, and the alternatives considered but eliminated from further evaluation.

2.2. LOCATION OF PROPOSED ACTION AND ALTERNATIVES

The location of the Proposed Action area and alternatives, referred to herein as the “Plan Area,” is the former Army facility known as Fort Ord (please refer to Chapter 1, *Introduction*, and **Figures 1-1** and **1-2**).

2.3. PROPOSED ACTION AND ALTERNATIVES

2.3.1. Approach to Developing Alternatives

2.3.1.1. NEPA and CEQA

NEPA and CEQA require that an EIS/EIR evaluate a reasonable range of alternatives to the proposed action that could accomplish the lead agencies’ purpose and need, including the No Action Alternative.

Under NEPA, the range of alternatives required in an EIS is governed by the rule of reason; an EIS must consider a reasonable range of alternatives as defined by the purpose and need for the proposed action (please refer to Chapter 1, *Introduction*, for purpose and need). Reasonable alternatives include those that are practical or feasible from a technical, economic, and environmental standpoint and are common sense. The EIS must devote substantial treatment to each alternative considered. If alternatives have been eliminated from detailed study, the EIS must briefly discuss the reasons for their elimination (40 CFR, Part 1502, Section 14 [40 CFR 1502.14]). The specific alternative of “no action” shall also be evaluated along with its impact. The purpose of describing and analyzing a no action alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no-action alternative describes the likely future conditions without the project and may also include predictable actions by other persons or entities in addition the Federal agency involved. At the lead agency’s discretion under NEPA, the no action alternative may be described as the future circumstances without the proposed action and can also include predictable actions by persons or entities other than the Federal agencies involved in a project action, acting in accordance with current management direction or level of management intensity. In other words, if disapproval of the proposed action would result in predictable actions by others, such as the proposal of some other action, this no action consequence should be discussed.

An EIR must also consider a reasonable range of alternatives for analysis. The alternatives considered under CEQA must meet the basic project objectives, be feasible, and should not result in greater impacts on the environment than those of the proposed project. In the determination whether certain alternatives are feasible, the lead agency is guided by the general definition of feasibility found in CEQA Guidelines Section 15364: “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” The lead agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and the proponent’s control over alternative sites in determining the range of alternatives to be considered in an EIR (CEQA Guidelines Section 15126.6[f][1]). An EIR must briefly describe the rationale for selection and rejection of alternatives and the information the lead agency relied upon in making the selection. It should also identify any alternatives that the lead agency considered but rejected as infeasible during the scoping process and briefly explain the reason for their exclusion (CEQA Guidelines Section 15126.6[c]). Under CEQA, an EIR is required to analyze the no project alternative. CEQA Guidelines Section 15126.6 (e)(2) states that the no project

¹ Available for public review at FORA (920 2nd Ave., Suite A, Marina, CA).

analysis shall discuss the existing conditions at the time of the NOP is published, or if no NOP is published, at the time environmental analysis is commenced. The no project conditions may also include some reasonably foreseeable changes in the existing conditions and changes that would be reasonable expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

For the purposes of this EIS/EIR, the term No Action Alternative is used as the title for an alternative that fulfills both the no action alternative requirement of NEPA and the no project alternative of CEQA.

Alternatives for analysis in this EIS/EIR were considered in the context of the NEPA/CEQA regulations and guidelines described above. For the purposes of analyzing the Proposed Action, reasonability is based on the following criteria:

- Alternatives should fulfill the purpose and need under NEPA and the goals and objectives under CEQA.
- Alternatives should be feasible and reasonable in terms of economic, environmental, legal, social, and technological factors.
- Alternatives should avoid or substantially reduce one or more significant impacts of the Proposed Action.

2.3.1.2. Endangered Species Act

Section 10(a)(1)(B) of the ESA requires Section 10 permit applicants to specify in an HCP what alternative actions to the incidental take of federally listed threatened and endangered species were considered (i.e., take alternatives) and the reasons that those alternatives were rejected. There is no similar requirement under Section 2081 of the Fish and Game Code. The ESA requirement is addressed in Chapter 10 of the Draft Fort Ord HCP, which considers alternatives to take. Alternatives to take typically include avoiding all activities that result in take, or limiting the implementation of covered activities to reduce the level of take. In compliance with NEPA and CEQA, this EIS/EIR identifies and analyzes a wider range of project alternatives than the take alternatives in the Draft HCP.

2.3.2. Alternatives Considered for Further Analysis

The following alternatives were found to generally meet purpose/need and goals/objectives of the Draft HCP, be feasible or potentially feasible, and have some potential to avoid or substantially reduce one or more significant impacts of the Proposed Action, and, therefore, are considered for further analysis in the EIS/EIR.

- Alternative 1: No Action Alternative – Wildlife Agencies would not issue base-wide ITPs and the Draft Fort Ord HCP would not be approved or implemented. This alternative represents the No Project Alternative defined under CEQA and the No Action Alternative defined under NEPA;
- Alternative 2: Proposed Action Alternative – Wildlife Agencies would issue base-wide ITPs; take would be permitted for development and habitat management activities as described in the Draft Fort Ord HCP; and
- Alternative 3: Reduced Take Alternative – Wildlife Agencies would issue base-wide ITPs for development and habitat management activities within designated development areas, but no take would be authorized for development activities within HMAs.

Table 2-1 provides a summary of the land use designations for each alternative considered for further analysis. Alternatives eliminated from detailed evaluation in the EIS/EIR are discussed at the end of this section.

Table 2-1. Summary of Land Use Designation for Alternatives Considered

Land Use Designation	Alternative 1: No Action		Alternative 2: Proposed Action		Alternative 3: Reduced Take	
	Acres	Miles	Acres	Miles	Acres	Miles
Designated Development Areas						
Currently Disturbed Areas (Developed Lands)	4,241		4,241		4,241	
Natural Lands to be Developed ²	1,263		5,051		5,051	
Natural Lands to be Preserved	3,788		0		0	
Subtotal	9,292		9,292		9,292	
Borderlands						
Along FONM Interface		14.7		0		0
Category 1				14.9		14.9
Category 2				14.3		14.3
Category 3				2.3		2.3
Category 4				27.7		27.7
Subtotal		14.7		59.2		59.2
Habitat Management Areas						
Allowable Development	0		777		0	
Road Corridors and Infrastructure ¹	0		106		0	
Habitat Management	18,540		17,657		18,540	
Subtotal	18,540		18,540		18,540	
Total	27,832	14.7	27,832	59.2	27,832	59.2

¹Includes Inter-Garrison Road Widening, MCWD, Fort Ord Recreational Trail and Greenway, and City of Marina Airport Master Plan Expansion Impacts.

² While the extent and number of individual ITPs the USFWS and/or CDFW would approve is unknown, for the purpose of this analysis, it is assumed that approximately 25% of the vegetated development areas (1,263 acres) could be developed. Refer to Section 2.3.3.3 for more detail.

2.3.3. Alternative 1: No Action Alternative

Under the No Action Alternative, the comprehensive base-wide ITPs would not be issued by the USFWS and CDFW, and the Draft Fort Ord HCP would not be implemented. While the conservation program established by the HMP is intended to be a comprehensive program for the former base, it stems from an agreement between the Army and USFWS and does not exempt other landowners (existing or future) of transferred property from the ESA Section 9 prohibitions against take of listed species or from compliance with the provisions of the CESA (please refer to Section 1.1, *Overview of the Draft Fort Ord HCP*, and Section 2.3.4.1, *Background*, for more information on the HMP). Approximately 5,051 acres of HMP-designated development areas, which are primarily vegetated and include various habitat types where listed species occur or have the potential to occur, would not be developed unless permitted by individual ITPs. The development or redevelopment of the approximately 4,241 acres of HMP-designated development areas that are primarily developed and void of vegetation and habitat for listed species would proceed throughout a 50-year period.

2.3.3.1. Development Activities

Under the No Action Alternative, development and redevelopment activities include the rehabilitation and construction of roads, utilities, and other infrastructure to support new research/educational, residential, commercial, light industrial, recreational projects pursuant to the Reuse Plan, General Plans, and Long Range Development Plans of local government and jurisdictions, including:

- Reuse Plan (EMC and EDAW, 1997);
- City of Marina General Plan (City of Marina, 2006) and EIR (Lamphier & Associates, 2000);
- City of Seaside General Plan (City of Seaside, 2003) and EIR (City of Seaside and Cotton/Bridges/Associates, 2004);
- City of Del Rey Oaks General Plan (DD&A, 1997a) and EIR (DD&A, 1997b);
- City of Monterey and General Plan EIR (City of Monterey and EMC, 2005);
- CSUMB 2007 Master Plan (MIG, et al, 2007) and EIR (DD&A, 2009);
- UC MBEST Master Plan (Economic and Planning Systems, as amended 2015);

- County of Monterey General Plan (County of Monterey, 2010) and EIR (ICF, 2010); and
- FODSP Final General Plan and EIR (State Parks, 2004).

These activities would occur on approximately 4,241 acres of HMP-designated development areas that are primarily developed, consisting of pavement, remnant and abandoned military structures, and ruderal vegetation. For the development activities proposed within the existing disturbed/developed areas, the likelihood of impacts to Federal or State listed species is low due to the negligible amount of suitable habitat within these parcels. Therefore, it is unlikely that take authorization from the USFWS or CDFW would be required for the majority of development activities within the 4,241 acres of development areas.

Approximately 5,051 acres of the designated development areas within the HMP-designated development areas are primarily vegetated and comprised of various habitat types, including 51 acres of coastal strand and dune, 2,045 acres of maritime chaparral, 373 acres of coastal scrub, 1,559 acres of coast live oak woodland and savanna, 1,020 acres of grasslands, 2 acres of riparian, and 2 acres of wetland and open water habitats. These various habitat types within the vegetated designated development parcels are known, or have the potential, to support Federal and State listed species (e.g., California tiger salamander, sand gilia, seaside bird's beak, Smith's blue butterfly, California red-legged frog, and western snowy plover) and impacts to these listed species would likely require take authorization from the USFWS and/or CDFW. Therefore, under the No Action Alternative, no development would occur within the approximately 5,051 acres unless permitted by individual ITPs.

The majority of the future proposed development activities within the 5,051 acres that is primarily vegetated would likely be subject to CEQA review and would likely be required to comply with ESA (primarily through the Section 10 process), CESA, NEPA, and other environmental regulations, which may require protections for species and their habitats and consideration of environmental effects on a project-by-project basis. The specific type, number, timing, and extent of development projects within the 5,051 acres is unknown; and therefore, the number of individual ITPs the USFWS and CDFW would approve within a 50-year period is unknown. However, given the project-by-project review, it is anticipated that development, if permitted, would occur at a slower pace (compared to the Proposed Action).

Individual projects would be required to comply with any applicable policies contained in the above-mentioned planning documents for each of the jurisdictions. Under the No Action Alternative, growth and development would occur beyond each plan's horizon consistent each applicable planning document. It is anticipated population growth over the next 50 years and associated housing and development needs would not change and would not exceed any limits to growth as specified in any planning documents. It is assumed that planned growth would occur within the adopted growth boundaries identified in the local planning documents.

The HMP establishes a habitat conservation area and corridor system and parcel-specific land use categories and management requirements for all lands on former Fort Ord. The HMP assigns six principal land use categories for parcels or groups of parcels as follows: 1) habitat reserve areas, 2) habitat corridors, 3) development with reserve areas or restrictions, 4) development, 5) Borderlands, and 6) future road corridors, easements, and rights of way (please refer to Section 1.1, *Overview of the Draft Fort Ord HCP*, and Section 2.3.4.1, *Background*, for more information on the HMP). In addition to development activities within the HMP-designated development areas, the HMP identifies allowable development activities and specific future road and other infrastructure projects that could occur within the remaining HMP-designated areas, including habitat reserves and corridors. Similar to the 5,051 acres of vegetated development areas, these areas are known, or have the potential, to support Federal and State listed species. Under the No Action Alternative, the allowable development activities and future road corridors and other infrastructure projects within these remaining HMP-designated areas would not be covered under the comprehensive base-wide ITPs. Therefore, development activities outside of the HMP-designated development areas would also need to obtain individual ITPs on an individual, project-by-project basis if take of listed species would occur.

2.3.3.2. Habitat Management Activities

Under the No Action Alternative, deed restrictions and MOAs in place as a result of Army obligations under the HMP would continue to provide the basic mechanism for implementing parcel-specific habitat protection measures specified by the HMP. Land recipients that receive lands with habitat management requirements identified in the HMP, as amended,

would be required to implement them even under the circumstances that development is reduced within the designated development areas. Accordingly, each jurisdiction would be required to comply with the ESA and CESA and may be required to obtain take authorization from the USFWS and CDFW in order to implement the management requirements to avoid being in violation of the ESA and CESA. This alternative assumes that the existing HMP land use designations would not be revised since the U.S. Army and land recipients are mandated to comply with the HMP before accepting the property. Instead, implementation of the HMP by the land recipients would be required through the land transfer process. In fact, most of the lands on the former base would be (and most already have been) transferred to the land recipients, as anticipated by the HMP.²

Implementation of the HMP-required habitat management activities within the HMP-designated areas includes restoration, preservation, prescribed burning, non-native species controls, road and trail maintenance, access control, erosion control, monitoring, research, fuelbreak construction, installation of signage, and regular patrols to enforce and monitor public access and use. Many of these activities could result in take of Federal and/or State listed species. Therefore, under the No Action Alternative, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs. The HMP requires that Resource Management Plans (RMPs) be prepared and implemented for each of the habitat reserves and development parcels with restrictions or reserves. RMPs are planning documents that provide the basis of what habitat management activities will be conducted, periodicity of the activities, monitoring of HMP species and their habitats, and reporting requirements. The area under a single RMP may consist of a single habitat reserve, the reserve portion of a single development parcel, or groupings of reserves or parcels. The geographic area and the content of the RMP are generated through review of the CRMP and review and acceptance of the RMP by the Wildlife Agencies. The exact amount and extent of take of listed species that would result from implementation of HMP-required management activities cannot be defined without completion of the RMP(s). Assessments of erosion issues, non-native species issues, and other conservation management issues must be determined in order to estimate the necessary management measures for the RMP(s). For these reasons, it is difficult to estimate with accuracy what management activities will be required and identifying the associated potential for take of listed species.

The jurisdictions that have transferred lands with HMP habitat management requirements include BLM, Marina, UC, County, State Parks, MPC, and MPRPD. These jurisdictions (excluding the BLM, which is authorized to implement its habitat management activities under its RMP and BO) would likely need to obtain take authorization from the USFWS and/or CDFW to implement many of the HMP-required habitat management requirements. The lands transferred to Seaside, Del Rey Oaks, Monterey, and BOT/CSUMB do not have any habitat management requirements under the HMP. However, these jurisdictions may need take authorization from the USFWS or CDFW to implement HMP Borderland requirements, which apply to some of their property adjacent to HMAs and include fire-wise planning (including setbacks from the wildland interface and creating and maintaining fuelbreaks), non-native species control, signage, erosion control, and access control. Therefore, the jurisdictions with habitat management and Borderland requirements (excluding BLM) would need to obtain individual ITPs if take of listed species would occur as a result of these activities.

2.3.3.3. Mitigation Strategy

As stated above, the No Action Alternative includes activities within the 4,241 acres of the designated development areas that are primarily developed and would not require ITPs from the USFWS and/or CDFW. Therefore, the comprehensive base-wide ITPs would not be issued by the USFWS and CDFW, and the Draft Fort Ord HCP, including the HCP's mitigation strategy would not be implemented.

As stated above, the majority of the future proposed development activities within the 5,051 acres that is primarily vegetated would likely be subject to CEQA review and would likely be required to comply with ESA (primarily through the Section 10 process), CESA, NEPA, and other environmental regulations, which may require protections for species and their habitats and consideration of environmental effects on a project-by-project basis. The issuance of individual ITPs from the USFWS and/or CDFW would require a project-by-project mitigation strategy. Mitigation strategies are highly variable and highly dependent on the species and extent and intensity of the impact. Based on a review of current and expected future regulatory requirements, as described above, as well as the ESA and CESA mitigation that has been previously required for

² Regulatory practices are anticipated to change over the next 50 years, but assumptions regarding future changes to existing or potential new regulations would be speculative. For the purposes of this analysis, future regulations are assumed to be consistent with existing regulations.

individual projects within the former Fort Ord, a typical permit would include mitigating impacts to Federal and State listed species at a 3:1 ratio, on- or off-site (i.e., within the project site or outside the project site within suitable habitat). In addition, in consultation with the USFWS and CDFW, it is reasonable to assume that mitigation lands for future development activities may consist of the following options to offset unavoidable impacts:

- Avoidance and preservation on-site with a management plan and endowment to maintain the preservation site;
- Preserve and/or restore suitable habitat off-site with a management plan and endowment to maintain the preservation site (within or outside the Plan Area);
- Purchase credits at a USFWS/CDFW-approved habitat conservation bank; or
- A combination of some or all of the above.

In addition, as part of the individual ITPs for any of the future proposed development activities, the USFWS and CDFW would likely require projects to implement project-specific AMMs. AMMs for individual projects are expected to be similar to those required under the Proposed Action, and may include, but are not limited to: species surveys; construction timing restrictions, training, monitoring; implementing buffers; species salvage; and erosion, access, and non-native species control measures.

The amount of resource avoidance and preservation required by the expected regulatory setting could restrict the amount of development within the vegetated designated development areas. For example, applying a 3:1 mitigation ratio for impacts to Federal and State listed species within the vegetated designated development areas, future development activities may be confined to 1,263 acres within the vegetated designated development areas to allow for 3,788 acres of mitigation lands to be set aside within the former Fort Ord. Mitigation lands could also be preserved outside the former Fort Ord.

While the extent and number of individual ITPs the USFWS and/or CDFW would approve is unknown, for the purpose of this analysis, it is assumed that approximately 25% of the vegetated development areas (1,263 acres) could be developed during the 50-year period and the remaining vegetated development areas (3,788 acres) would be suitable, available, and provide the mitigation lands required by ITPs, if needed.³ This EIS/EIR acknowledges that this assumption does not guarantee individual ITPs would be issued by the USFWS and/or CDFW for future development of 1,263 acres, and rather uses this reasonable assumption to provide meaningful analysis and comparison of alternatives in this EIS/EIR. It is further assumed that the implementation of the habitat management and Borderland activities within the non-Federal HMP-designated areas would be required pursuant to the HMP under the No Action Alternative. Therefore, in addition to individual project proponents, the jurisdictions with habitat management and Borderland requirements (excluding BLM) may need to obtain individual ITPs if take of listed species would occur as a result of these activities. While these activities are generally beneficial for listed species and their habitat, it is likely that additional mitigation measures within the habitat areas may be required to offset impacts to listed species. **Table 2-2** provides a summary of land use designations under Alternative 1.

Table 2-2. Summary of Land Use Designations under Alternative 1: No Action

Land Use Designation	Acres	Miles
Designated Development Areas		
Currently Disturbed Areas (Developed Lands) to be Developed	4,241	
Natural Lands to be Developed (25% of 5,051 acres)	1,263	
Natural Lands to be Preserved (75% of 5,051 acres)	3,788	
Subtotal	9,292	
Borderlands		
Along FONM Interface		14.7
Habitat Management Areas		
Allowable Development	0	
Roads Corridors and Infrastructure	0	
Habitat Management	18,540	
Subtotal	18,540	
Total	27,832	14.7

³ Total estimated acreage of vegetated designated development areas is 5,051 acres; 25% is 1,263 acres and 75% is 3,788 acres.

In the absence of a Draft Fort Ord HCP, there would be no base-wide, comprehensive mitigation strategy and, therefore, formulating adequate mitigation for future projects and activities may become more complicated and constrained as redevelopment of the former Fort Ord occurs on a project-by-project basis. Each project proponent would be required to negotiate with landowners and consult with the regulatory agencies, which requires extensive time and effort on the part of the agency, landowner, and project proponent.

Funding to implement the HMP would be the responsibility of the entities receiving properties or with management responsibilities. The FORA CIP would no longer be funding HCP required endowments. Instead, 25%, or approximately \$21 million, of the current FORA CIP funding for HCP endowments would likely be set aside for the implementation of the 1997 HMP and 1997 Reuse Plan due to the anticipated reduction in former Fort Ord development activities resulting from the No Action Alternative. This funding could be proportionally divided amongst the land use jurisdictions that may require take authorization for HMP management activities and future development activities for use in obtaining project-specific ITPs. Funding for the development of individual HCPs required at the individual project-level would be the responsibility of the entities receiving properties or with management responsibilities. No additional future funding from the FORA CIP is anticipated under this scenario.

2.3.4. Alternative 2: Proposed Action Alternative - Draft Fort Ord HCP

2.3.4.1. Background

The Proposed Action is the issuance of ITPs by the USFWS and CDFW, and approval and implementation of the Draft Fort Ord HCP by the Permittees. The project addressed in the Draft Fort Ord HCP is the reuse and development of the former Fort Ord military base as presented in the HMP (Section 7 requirement of the Biological and Conference Opinion [USFWS, 1997]), Reuse Plan (EMC and EDAW, 1997), and subsequent updates.⁴ This section describes the background of these documents and their relationship to the Draft Fort Ord HCP. Both the Reuse Plan and the HMP were the result of years of planning, environmental review, and land conveyance decisions relative to the closure, disposal, and reuse of former Fort Ord; they establish the template for ultimate land uses on the former base that designates developable areas and HMAs.

The Reuse Plan and the HMP assume a program of development and redevelopment on former Fort Ord. Under the Draft Fort Ord HCP, base reuse would result in the rehabilitation and construction of roads, utilities, and other infrastructure to support new research/educational, residential, commercial, light industrial, recreational, and other development. As a result, of the 27,832 acres in the Plan Area, 4,241 acres of existing developed areas on the former base would be redeveloped and about 5,051 acres of existing vegetated areas would be affected by new development within the designated development areas. Approximately 777 acres would be affected by covered activities within the HMAs (485 acres on the non-Federal HMAs); however, that development would be required to be sited in areas of existing development or disturbance to the maximum extent feasible. Impacts to HCP species resulting from base redevelopment would be minimized and fully mitigated through the preservation and management of 3,895 acres on non-Federal HMAs of HCP species, their habitat, and natural communities, and through management of habitat on 14,645 acres of HCP species and their habitat on BLM land, the extent allowed by Federal law.

It is estimated that 12,000 dwelling units (including units for California State University Monterey Bay [CSUMB] on-campus housing and Presidio of Monterey [POM] Annex housing), 18,000 jobs, and a build-out population of approximately 37,370 would occur on Fort Ord development parcels.⁵ The CSUMB on-campus traditional student enrollment is projected to reach 8,500 full-time equivalent (FTE) students with an additional 3,500 FTE non-traditional primarily off-campus students, for a total of 12,000 FTE at buildout (Year 2025).

⁴ Subsequent updates to these plans include changes resulting from land use modifications in the East Garrison and Parker Flats areas, relocation of the multi-modal transportation corridor, the Seaside/State Parks land swap, and other changes since the HMP and the Reuse Plan were finalized.

⁵ Since the Reuse Plan allows a limited amount of development to occur within the former Fort Ord, this analysis assumes the resource-constrained (i.e., water) Reuse Plan buildout described in FORA's Development and Resource Management Plan (DRMP). The DRMP is utilized to restrain development to available resources and service constraints and to save capacity for industrial/commercial land uses and to prevent residential development from outstripping potable water supply. The DRMP currently caps development at 6,160 new dwelling units, 1,813 rehabilitated and replacement units, and 18,342 jobs (the approximate equivalent of 3.6 million square feet of commercial and industrial development (approximately 80-100 acres)).

The Reuse Plan also designates about two-thirds (approximately 18,540 acres) of former Fort Ord to be managed consistent with the base-wide habitat management program described in the HMP. Of that total, approximately 14,645 acres would be managed by BLM and the rest by non-Federal entities. The Army would retain 876 acres (3%) as a military enclave (i.e., Presidio of Monterey [POM] annex, reserve center).

The HMP establishes a habitat conservation area and corridor system and parcel-specific land use categories and management requirements for all lands on former Fort Ord. The designation of habitat reserve lands is based on a habitat conservation area and corridor system that was initially developed following widely accepted ecological concepts such as size, shape, location, connectivity, and management considerations for the establishment and maintenance of habitat reserve areas and corridors. In its early stages, the conservation area and corridor system relied on maximum preservation of high and medium density locations of HMP species, species richness, and habitat connectivity. Subsequent iterations incorporated changes in response to existing and potential land uses, the Army's landfill remediation requirements, additional habitat restoration and enhancement opportunities, and other factors. Adjustments were made with the acknowledgment that some loss of HMP species habitat could be mitigated by managing, expanding, and restoring similar habitat in other areas and by establishing clear, manageable boundaries along the urban/wildland interface. The resulting conservation program was formalized in the April 1997 HMP.

The HMP assigns six principal land use categories for parcels or groups of parcels as follows: 1) habitat reserve areas, 2) habitat corridors, 3) development with reserve areas or restrictions, 4) development, 5) Borderlands, and 6) future road corridors, easements, and rights of way. The relationship between HMP land use categories and the HCP land use designations is described in Section 2.3.4.2, *Draft Fort Ord HCP Land Use Designations*, below. Parcels under each HMP category are shown on **Figure 2-1**. Resource conservation and management requirements for these parcels are based on the main management goal for each category. The habitat reserve areas are lands that are set aside from development to protect biologically important habitat for species targeted in the HMP. The main management goal for the habitat reserve category is the conservation and enhancement of these species and natural communities. Habitat corridor areas require management strategies that promote maintenance of connections between habitat reserve areas. Development with reserve areas or restrictions are parcels that are slated for development but that have inholdings of habitat reserve land or require development restrictions to protect habitat within or adjacent to the parcel.

Lands designated as development have no management requirements related to the target species, unless they are designated Borderlands. Borderlands, as defined in the HMP, are designated development and HMA parcels at the urban/wildland interface where specific planning and design considerations and management activities are required. Future road corridors, easements, and rights-of-way (ROWs) are designated within some of the habitat reserves and these areas are to be managed as part of the reserve until such time that they are developed or if specific management activities are required to maintain facilities such as utilities.








Since the HMP was finalized in 1997, changes have been made and additional details have become available with respect to land uses on certain parcels. For example, the land use modifications for the East Garrison and Parker Flats areas clarified land use boundaries and added new habitat areas to the original HMP reserve configuration; the proposed Multi-Modal Transportation Corridor (MMTC) through the UC's South Reserve has been relocated; the Final General Plan for the Fort Ord Dunes State Park (FODSP) was approved by State Parks in 2004; BLM approved a RMP covering current and future lands that it manages at Fort Ord in 2007; and the interim use of the Laguna Seca Recreational Expansion Areas has been clarified. The Coordinated Resource Management and Planning (CRMP) program's recommendation to expand the Borderlands category to cover all areas at the urban/wildland interface has also been incorporated into the Draft Fort Ord HCP along with the changes, recommendations, and additional information described above.

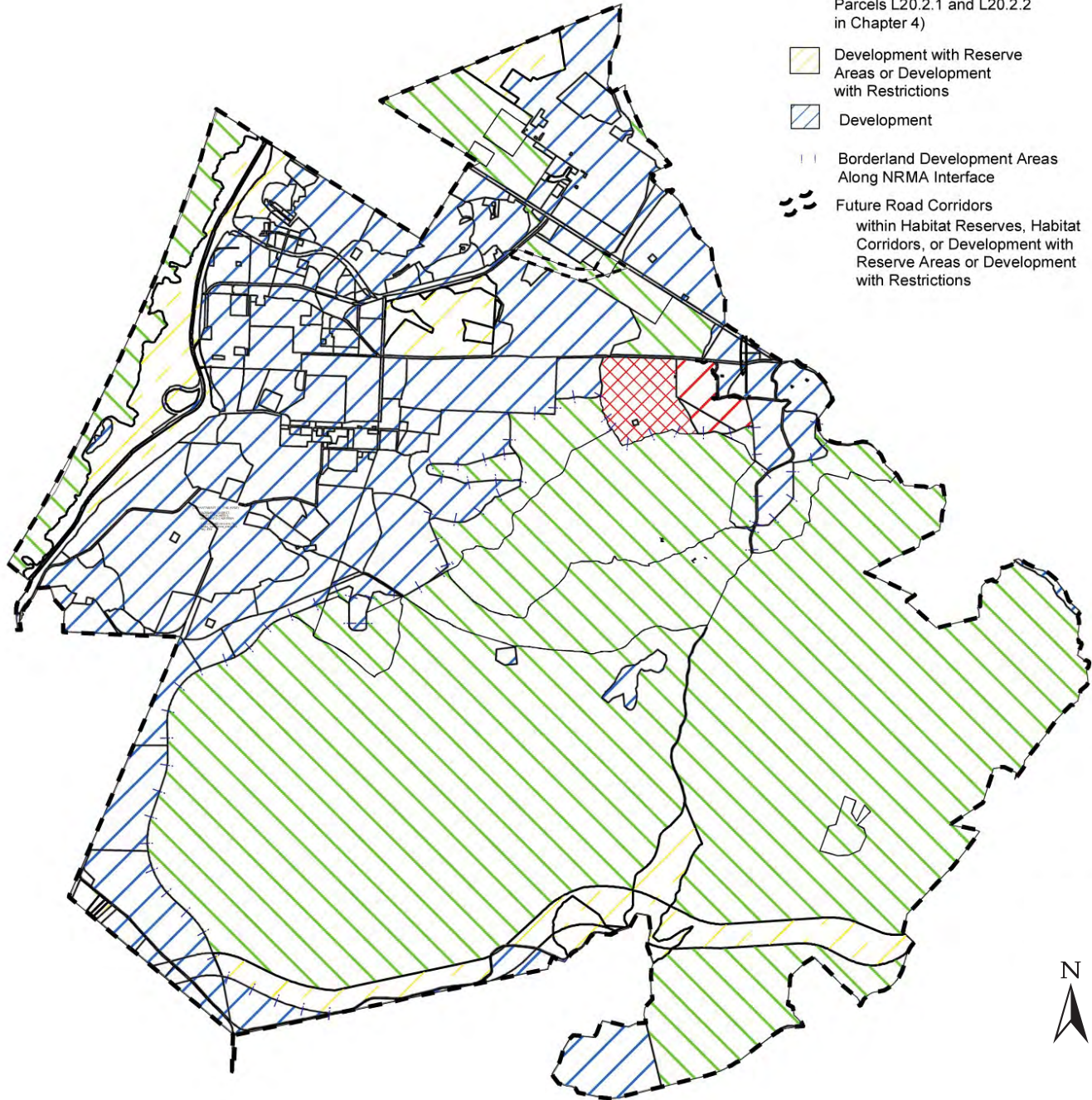
While the conservation program established by the HMP is intended to be a comprehensive program for the former base, it stems from an agreement between the Army and USFWS and does not exempt other landowners (existing or future) of transferred property from the ESA Section 9 prohibitions against take of listed species or from compliance with the provisions of the CESA. As described in Section 1.1, *Overview of the Draft Fort Ord HCP*, HMP was intended to serve as

Notes:

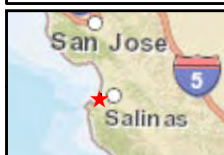
- 1) Polygon boundaries in development areas may be modified, and development polygons may be subdivided or aggregated, before or after transfer. These types of changes in development polygons will not require modifications to this HMP.
- 2) The E11b parcels do not reflect the public benefit conveyance still being coordinated by FORA, the County of Monterey, and Monterey Peninsula Regional College. A portion of these parcels will likely be transferred as public benefit conveyance transfers.

Legend

- — Boundary of the Former Fort Ord
- HMP Management Categories**
-  Habitat Reserve
- Habitat Corridor**
-  Habitat Corridor
-  Portion of Habitat Corridor with Allowance for Future Development (See Figure 4-3 and the Discussion of Parcels L20.2.1 and L20.2.2 in Chapter 4)
-  Development with Reserve Areas or Development with Restrictions
-  Development
-  Borderland Development Areas Along NRMA Interface
-  Future Road Corridors within Habitat Reserves, Habitat Corridors, or Development with Reserve Areas or Development with Restrictions



Source: Zander Associates



Title: **HMP Land Use Designations**
 File: HMP Land Use.pdf

Date: 4/19/2012
 Scale: N/A
 Project: 2444



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Figure
2-1

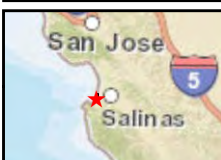
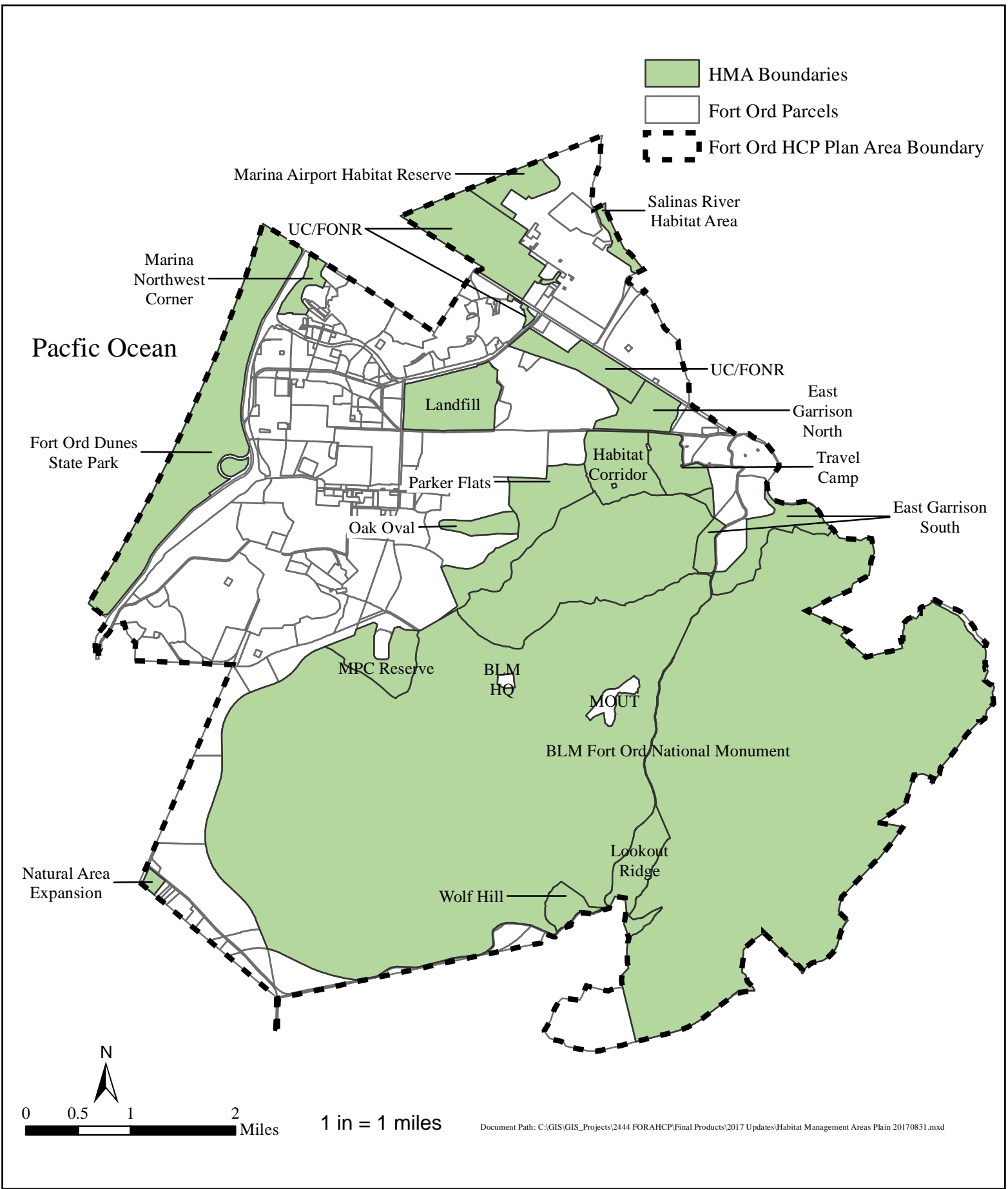
the basis for the Draft HCP and to support the issuance of ITPs to non-Federal land recipients. The habitat management actions under the HMP must be implemented as required under existing land transfer agreements. As a result, habitat and species management requirements under the HMP have been incorporated into the conservation strategy for the HCP species (Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP). The general conservation strategy developed in the HMP, and evident in the configuration of reserve and development lands, was designed to be sufficient for use in an HCP. The habitat reserve areas and habitat corridors are considered HMAs in this HCP, as are the restricted development parcels (Section 2.3.4.2, *Draft Fort Ord HCP Land Use Designations*, below). All of these HMAs combine to create a habitat reserve system supporting the full range of HCP species and natural communities while allowing limited development on properties with lesser resource values. Accordingly, the provisions of the Draft HCP closely mirror the provisions of the HMP and are intended to provide those details and that documentation. However, the Draft HCP includes additional required actions in order to meet the Federal and State ITP issuance criteria. The Draft HCP describes in detail how to avoid, minimize, and mitigate impacts on listed species, addressing the permit requirements relevant to these species for covered activities, as well as the responsibilities associated with operating and maintaining the habitat reserves that will be created to mitigate anticipated impacts resulting from growth and development activities (please refer the Chapter 2, *Proposed Action and Alternatives*, and Section 1.7, *Relationship of the Habitat Management Plan Conservation Program to this HCP*, in the Draft HCP). The Draft Fort Ord HCP adds to and codifies the HMP to meet the Federal and State ITP issuance criteria. Upon issuance of the State and Federal ITPs, if the Draft Fort Ord HCP requires additional actions, then the Draft Fort Ord HCP must be followed to ensure permit compliance.

Earlier drafts of the HCP included all of the species addressed in the HMP (18 species plus one additional species for a total of 19 species) as covered species. However, in 2016, the USFWS requested that the HCP better differentiate between the Federal and non-Federal actions, in particular, land management actions on the FONM. The intent of this request was to clarify that Permittees would only receive credit for mitigation implemented on FONM if those mitigation actions are funded or implemented by the Permittees and approved by the BLM, and if those actions are in addition to actions that the BLM would normally implement on FONM. The USFWS also requested that the HCP should clarify that for the Section 10 permit, protection of HCP species and their habitat on the Permittee's non-Federal HMAs qualifies as mitigation for take, but the FONM, which would be managed through BLM's normal operations and management actions, would not qualify as mitigation for take. For the State permit, the CDFW considers protection and management of the FONM, consistent with its RMP, stepdown plans and ACEC designation, national monument designation, the HMP, the HMP MOU, and the LOT, and only to the extent allowed under governing law and regulation, including FLPMA, NEPA, and the OPLMA, to be in conformance with the HCP as mitigation for take of listed species. The USFWS provided guidance on approaches to provide adequate mitigation. Those approaches included reducing the number of HCP species and not including BLM-funded land management actions on FONM as mitigation for impacts on non-Federal land. As a result, eight species are considered covered species in the Draft HCP. Any HMP habitat management requirements associated with the 10 HMP species not included in the Draft HCP have been identified in Section 4.3, *Biological Resources*, as mitigation measures to ensure HMP compliance.

2.3.4.2. Draft Fort Ord HCP Land Use Designations

The Draft Fort Ord HCP land use designations are based on those used in the HMP and Reuse Plan. As such, the roles and responsibilities of the landowner as outlined and agreed to under these plans are further codified in the Draft Fort Ord HCP. **Table 2-3** provides the relationship between the HMP land use descriptions and those used in the Draft HCP. **Table 2-4** identifies each land use designation by land recipient. **Figure 2-2** shows the land use designations assigned to parcels in the Draft HCP.

The revised designations better address the more detailed planning and other changes that have occurred since the HMP was finalized. Each of the Draft HCP land use designations has specific allowances and requirements, but there is also overlap among them (e.g., some development is allowable in all categories; interim management requirements apply in some Borderland and designated development areas; an individual parcel may be classified as a Borderland parcel and designated development parcel or HMA). These allowances and requirements are the basis of the covered activities described in Section 3.3, *Covered Activities*, of the Draft Fort Ord HCP. Each of the Draft Fort Ord HCP land use categories is further described in the following subsections.



Title: **Habitat Management Areas**
 File: HMAs.mxd

Date: 8/31/2017
 Scale: 1 in = 1 mile
 Project: 2444

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Figure
2-2

Table 2-3. Relationship between HMP Land Use Descriptions and Terms Used in the Draft Fort Ord HCP

HMP Land Use Descriptions	HCP Land Use Category
Development	Designated Development Areas
Borderland Development Areas along FONM Interface	Borderlands Category 1 (Equivalent to Borderlands as Defined in HMP)
No Equivalent	Borderlands Category 2 (Designated Development Areas at Urban/ Wildland Interface)
No Equivalent	Borderlands Category 3 (Designated Development Areas within HMAs)
No Equivalent	Borderlands Category 4 (HMAs Adjacent to Existing Development)
Future Road Corridor	Future Road Corridors in HMAs, Future Road Corridors
Habitat Reserve	HMA
Habitat Corridor	HMA
Development with Reserve Areas or Development with Restrictions	Allowable Development in HMAs

Table 2-4. Draft Fort Ord HCP Land Use Designations by Land Recipient

Land Recipient	HCP Land Use Designation							
	Designated Development Areas				Habitat Management Areas			
	Existing Developed Areas	Natural Lands	Borderlands (Category)				Allowable Development	Habitat Management
		1	2	3	4 ^a			
State Parks	X	X				X	X	X
BOT/CSUMB	X	X	X	X				
UC								
UC/NRS						X	X	X
UC MBEST	X	X		X				
County of Monterey	X	X	X	X		X	X	X
City of Marina	X	X		X		X	X	X
City of Seaside	X	X	X					
City of Del Rey Oaks	X	X	X	X				
City of Monterey	X	X	X					
MPC	X	X	X		X			X
MCWD	X	X					X	
MPRPD								X
BLM	X	X			X	X	X	X

^a Category 4 Borderlands are located on HMAs.

Parcel designations used by the Army in the HMP are occasionally referenced in this EIS/EIR and the Draft Fort Ord HCP. However, in recognition that these parcel designations would eventually fade from use and that parcels are usually managed as a group when under the same land manager, the Draft Fort Ord HCP assigns commonly recognized names to parcels or groups of parcels that combined, make up a single land use or management area. This is particularly relevant for HMP parcel designated as habitat reserve area, habitat corridors, and development with reserve areas of restrictions. This EIS/EIR follows the Draft HCP land use designations for ease of reference.

Designated Development Areas

The designated development areas include all parcels that the HMP designates as development and encompasses 9,292 acres. These areas include both currently developed lands (i.e., lands with existing structures), as well as natural lands (i.e., lands with vegetation). Natural lands are lands that would be developed during the permit term, but some have interim land management responsibilities until they are developed (i.e., the Category 1 Borderlands). Lands designated as development under the HMP had no management restrictions. Biological resources on these parcels were not considered essential to the long-term preservation of sensitive species in the Plan Area. The Draft Fort Ord HCP calls this land use category “designated development parcels,” or collectively as “designated development areas.” Within this land use category, there

are designated development areas with currently developed lands and those with natural lands (**Table 2-5**). In addition, some designated development areas may also be categorized as Borderlands (please refer to *Borderlands* below).

Table 2-5. Land Use Designation Area or Length

Land Use Designation	Acres	Miles
Designated Development Areas		
Currently Disturbed Areas (Developed Lands)	4,241	
Natural Lands	5,051	
Subtotal	9,292	
Borderlands		
Category 1		14.9
Category 2		14.3
Category 3		2.3
Category 4		27.7
Subtotal		59.2
Habitat Management Areas		
Allowable Development	777	
Road Corridors and Infrastructure ¹	106	
Habitat Management	17,657	
Subtotal	18,540	
Total	27,832	59.2
¹ Includes Inter-Garrison Road Widening, MCWD, Fort Ord Recreational Trail and Greenway, and City of Marina Airport Master Plan Expansion Impacts.		

Currently, developed lands are designated development areas with negligible resource values; they were developed and previously used for military purposes over the years when former Fort Ord was an active installation and remain developed and/or disturbed today. These existing disturbed/developed areas on the former base span approximately 4,241 acres of the designated development areas.

Within the designated development areas, approximately 5,051 acres remain undeveloped. These lands support a range of species, including HCP species and natural communities, and are referred to as natural lands. While there are no development restrictions for this land use category, lands categorized as designated development under the Draft HCP would have to comply with HCP required actions as identified in Chapter 5, *Conservation Strategy*, of the Draft HCP. Parcel management prior to development and the pace of development would have to comply with the stay-ahead provision (Section 7.6, *Stay Ahead Provision*, of the Draft HCP), which requires that HMA establishment and protection of each HCP species' habitat stays ahead of impacts on those species' habitat allowed under the permits.

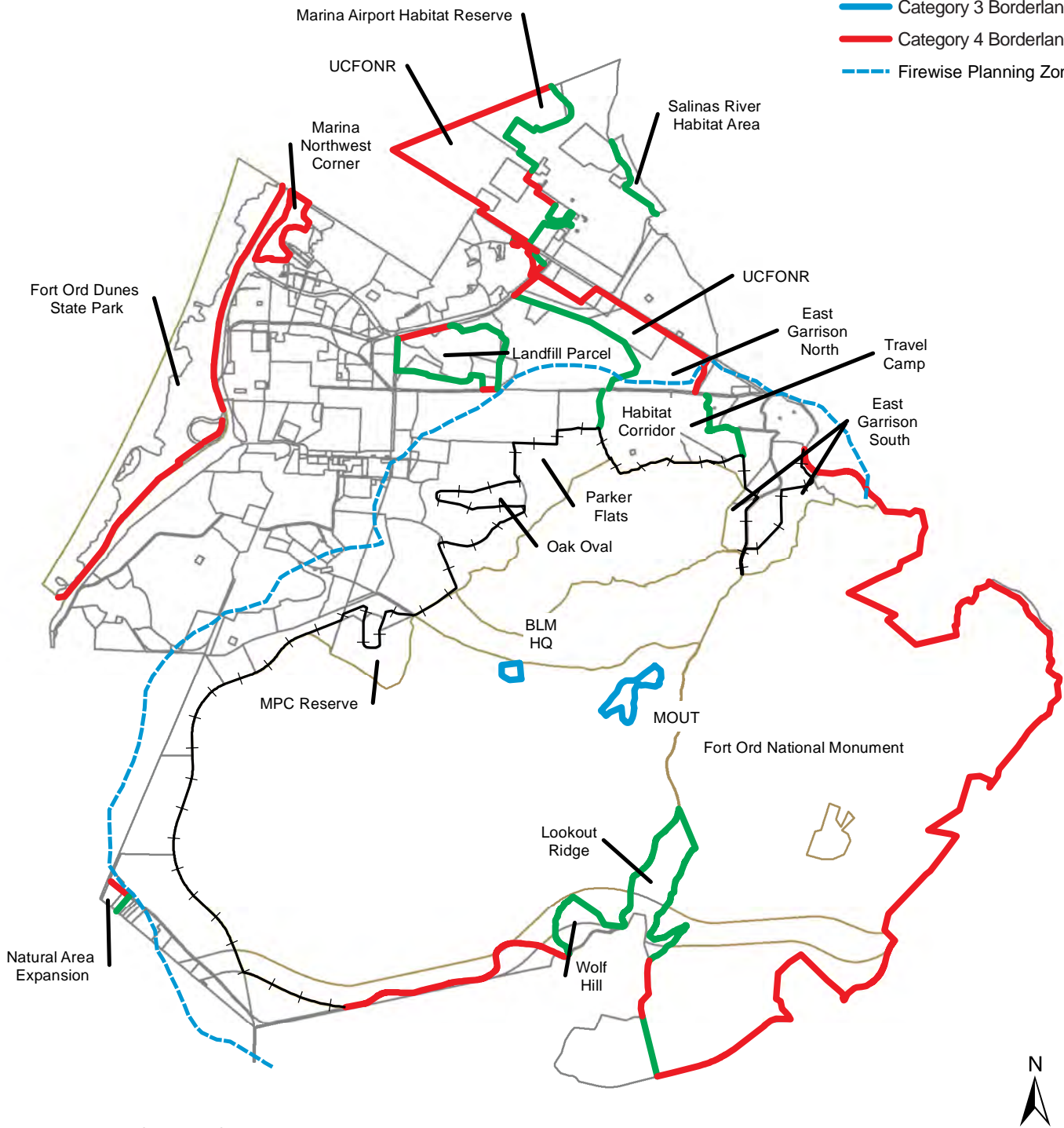
Borderlands

Borderlands are designated development parcels or HMA parcels at the urban/wildland interface where specific planning and design considerations and management activities are required to minimize effects of development on HCP species and natural communities (**Figure 2-3**). This land use designation overlaps with designated development areas and HMAs. That is, an individual parcel can be categorized as a designated development parcel or HMA and also a Borderland parcel. The Borderland designation applies to the entire parcel. This borderland designation is used to identify parcels that abut the urban/wildland interface. However specific Borderland avoidance and minimization measures (AMMs) may or may not apply to an entire Borderland parcel. In the HMP, the Borderlands designation was limited to development parcels adjacent to the main central habitat reserve, the FONM, and adjoining habitat areas. The HMP definition was expanded for the Draft Fort Ord HCP to identify management responsibilities for additional boundary situations. The term "Borderlands" is used broadly to refer to all Borderland parcels, regardless of their category.

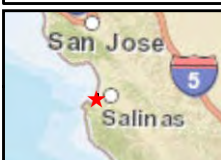
The Draft Fort Ord HCP identifies four Borderland categories based on anticipated conditions at the urban/wildland interface (**Table 2-6**, **Figure 2-3**, and **Table 2-7**). Category 1, 2, and 3 Borderlands apply to designated development parcels in the Plan Area that share a border with an HMA (please refer to Draft Fort Ord HCP Section 3.2.2.1, *Category 1: Equivalent to Borderlands as Defined in the HMP*; Section 3.2.2.2, *Category 2: Designated Development Parcels at Urban/Wildland Interface*; and Section 3.2.2.3, *Category 3: Designated Development Parcels in HMAs*, for definitions). Category 4 Borderlands applies to HMAs that abut areas of existing development in the Plan Area or areas of development outside of the Plan Area (please refer to Draft Fort Ord HCP Section 3.2.2.4, *Category 4: HMAs Adjacent to Existing Development*, for definition).

Legend

-  Category 1 Borderlands
-  Category 2 Borderlands
-  Category 3 Borderlands
-  Category 4 Borderlands
-  Firewise Planning Zone



Source: Fort Ord Reuse Authority



Title: **Borderlands**
 File: Borderlands.pdf

Date: 9/7/2017
 Scale: N/A
 Project: 2444



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Figure
2-3

Table 2-6. Borderland Parcel Boundary Length at the Urban/Wildland Interface by Land Recipient

Land Recipient	Borderlands Category (miles)				Total (miles)
	1	2	3	4	
State Parks	–	–	–	4.1	4.1
BOT/CSUMB	0.5	1.6	–	–	2.1
UC					
UC/NRS	–	–	–	4.8	4.8
UC MBEST	–	1.1	–	–	1.1
County of Monterey	8.2	8.9	–	2.2	19.5
City of Marina	–	2.5	–	2.6	5.1
City of Seaside	2.8	–	–	–	2.8
City of Del Rey Oaks	1.2	0.2	–	–	1.4
City of Monterey	0.1	–	–	–	0.1
MPC	2.1	–	1.7	–	3.8
MCWD	–	–	–	–	–
MPRPD	–	–	–	0.2	0.2
BLM	–	–	0.6	13.8	14.4
Total	14.9	14.3	2.3	27.7	59.2

Borderlands design consideration and management activities are specified in HCP required AMMs (please refer to Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP). All AMMs focus on minimizing effects on HCP species from development activities occurring adjacent to HMAs. **Table 2-6** summarizes the Borderland length because AMMs are generally required at or near the boundary of the parcel adjacent to an HMA (for Categories 1 through 3). For Category 4 Borderlands, AMMs are required along the HMA boundary with existing development in the Plan Area, existing development not in the Plan Area, or parcels in the Plan Area that are not party to the Draft Fort Ord HCP. In some cases, a single parcel may be assigned more than one Borderland category. This occurs when an HMA parcel borders both existing development and a designated development parcel. In these instances, AMMs would be applied on the designated development parcel when the HMA borders a designated development parcel and on the HMA parcel when the Category 4 Borderlands conditions are met.

Table 2-7. Parcels Designated as Borderlands by Land Recipient

Land Recipient	Parcel	Borderlands (Category) ^a			
		1	2	3	4
State Parks	S3.1.1, S3.1.3				X
BOT/CSUMB	S1.3.2	X			
	S1.2.1, S1.2.2		X		
UC					
UC/NRS	S2.1.2, S2.1.3, S2.1.5, S2.3.1.2, S2.3.1.4, S2.3.2.1, S2.3.2.2, S2.3.2.3, S2.3.2.4, S2.4				X
UC MBEST	S2.1.1, S2.1.4.1, S2.1.7, S2.5.1.2, S2.5.2.2		X		
County of Monterey	E11b.8, E19a.3, L3.2, L5.7, L20.2.1, L20.2.2, L20.2.3.1, L23.3.2.2, L23.3.3.1, L23.3.3.2, L20.18	X			
	E8a.1.2, E8a.1.4, E8a.1.1.2, E11b.1, L5.7, L7.2, L20.3.1, L20.3.2, L20.5.1, L20.5.2, L20.5.3, L20.6, L23.3.1, L23.3.3.1		X		
	E8a.1.1.1, E8a.1.1.2, E8a.1.3, E8a.1.4, E11a, E11b.7.2, L20.10.3, E11b.7.1.2				X
City of Marina	E5a.1, E5b, L5.1, L5.1.3, L5.1.8		X		
	E2a, L5.1.11				X
City of Seaside	E23.1, E23.2, E24, E34	X			
City of Del Rey Oaks	E29a, E29b.1	X			
	E36, E31a, E31b, E31c L6.1, L6.2		X		X
City of Monterey	E29b.2	X			
MPC	E19a.5, E21b.3, E40	X			
	F1.7.2			X	
BLM	F1.12			X	
	F1.1.1, F1.1.2, F1.1.3, F1.7.4, F1.13.1				X

^a A single parcel may be assigned more than one Borderlands category depending on the boundary conditions.

For all Borderland parcels, fire protection planning is required by State law. State of California Department of Forestry and Fire Protection defensible space requirements, Public Resources Code Section 4291, states there should be a 100 foot [fuel break] between structures and wildlands (<http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php>).

Designated development areas that are also designated as Borderlands have interim management requirements because it may take many years before development occurs in them. In order to prevent potential conflicts between the interim use of these parcels before their development and habitat management activities in the adjacent habitat area, FORA, local jurisdictions, or other recipients of the land will arrange for interim management of the land from the time of transfer until the land is developed. Management actions defined in Section 5.4, *Measures to Avoid and Minimize Impacts*, of the Draft Fort Ord HCP must also be applied as interim management actions prior to development.

FORA and/or the recipient of the land will be responsible for implementing the interim management requirements, which are consistent with Item C of the terms in the *Development of the Revised Fort Ord Habitat Management Plan* signed by the Army, USFWS, UC, and FORA in April 1996 (copy included in Appendix C of the Draft Fort Ord HCP). Some of the land recipients have entered into an agreement with FORA to implement their Borderland responsibilities (see Chapter 7, *HCP Implementation*, of the Draft Fort Ord HCP).

Habitat Management Areas

Land designated as HMAs in the Draft HCP include groups of HMP parcels that were designated habitat reserves, habitat corridors, and development with reserves or restrictions in the HMP and total 18,540 acres. For the purposes of the HCP land use designations, the HMP designations refer to areas within the HMAs that allow development with restrictions or require habitat management. All HMA parcels have habitat management requirements. With the exception of East Garrison (North and South), Parker Flats, Salinas River, Marina Airport, MPC Range 45 Reserve, and Natural Area Expansion (NAE) HMAs, the HMA parcels also allow development with restrictions.⁶ The specific covered activities covered in the HMAs are discussed in Section 2.3.3.4, *Covered Activities*. **Figure 2-2** shows the land use designations assigned to parcels in the Draft HCP.

The HMAs contain groups of parcels that when combined, constitute a contiguous series of properties. These properties will be managed by BLM, State Parks, UC/NRS, and the Cooperative in a coordinated and cooperative manner. BLM will manage the public land properties under its jurisdiction, referred to in this document and the Draft Fort Ord HCP as FONM, in accordance with its authorities as described in Section 1.3.2, *Role of Bureau of Land Management*. State Parks and UC/NRS will manage the FODSP and Fort Ord Natural Reserve (FONR). The Cooperative will be responsible for the implementation of all the management activities summarized in *Allowable Development in HMAs* below, on the behalf of the County, Marina, MPC, and MPRPD. The Cooperative may conduct the actions itself as the HMA manager, partner with other HMA managers within the Draft HCP (e.g., BLM, State Parks, UC), or contract with a third party, as needed. BLM will manage the FONM in accordance with its authorities (Section 1.9.3, *Role of Bureau of Land Management*). The HMA parcels have certain allowances for or restrictions on development, but most are primarily to be maintained and managed for the preservation and enhancement of HCP species and natural communities. **Table 2-8** lists the HMP parcels that constitute each HMA, and **Figure 2-4** identifies the location of the management areas.

⁶ FORTAG and the Marina Airport Master Plan Expansion are two covered activities that would result in development within HMAs that do not have development with restrictions allowances under the HMP and Draft HCP (i.e., Marina Airport, Salinas River, East Garrison North, Habitat Corridor, and NAE HMAs). Implementation of these activities would be mitigated through the establishment of additional mitigation areas (per MM-39 and MM-40).

Table 2-8. HMAs and HMP Parcels

Land Recipient	Habitat Management Area	Acreage	HMP (Army) Parcel Designations
BLM	FONM	14,645	F1.1.1, F1.1.2, F1.1.3, F1.13, F1.13.1, F1.2, F1.3, F1.7.4, L20.4
State Parks	FODSP	979	S3.1.1, S3.1.2, S3.1.3, S3.1.4
UC	FONR	606	S2.1.1.1, S2.1.1.2, S2.1.2, S2.1.3, S2.1.5, S2.3.1.4, S2.3.1.2, S2.3.2.1, S2.3.2.2, S23.2.3, S2.3.2.4, S2.4, S2.3.1.3
County of Monterey	East Garrison Reserve		
	North	148	E11a
	South	275	E11b.6.1, E11b.6.2, E11b.6.3, E11b.7.1.1, E11b.7.1.2, E11b.7.2
	Habitat Corridor/Travel Camp	398	L20.2.1, L20.2.2, L20.2.3.1
	Oak Oval Reserve	73	E19a.2
	Parker Flats Reserve	372	E19a.4
	Landfill Parcel	308	E8a.1.1.1, E8a.1.1.2, E8a.1.2, E8a.1.3, E8a.1.4, E8a.1.5, E8a.2
	Laguna Seca Recreational Expansion		
	Wolf Hill	79	L20.3.1, L20.3.2
	Lookout Ridge	196	L20.5.1, L20.5.2, L20.5.3
City of Marina	Salinas River Habitat Area	43	L5.1.12
	Marina Airport Habitat Reserve	130	L5.1.11
	Marina Northwest Corner	63	E2a
MPC	Range 45 Reserve	206	E38, E39, E41, E42
MPPRD	NAE	19	L6.1, L6.2
Total		18,540	

Covered activity descriptions for each HMA are summarized in *Allowable Development in HMAs* below, and detailed in Section 3.2.2., *Allowable Development in HMAs*, of the Draft HCP. These descriptions include the nature and extent of anticipated development, types of public use that would be allowed, and teaching activities that would be conducted, and a summary of the resource conservation and management actions that would be undertaken. Other covered activities within HMAs related to future road corridors and infrastructure, operation and management activities, and HCP required actions that may result in take are summarized below in the following sections: *Operation and Management Activities in HMAs*; *Future Road Corridors and Infrastructure Construction, Operations, and Maintenance in HMAs*; and *HCP Required Activities that may Result in Take*. All of these, with the exception of those on BLM lands, are considered covered activities under the Draft HCP and their effects are considered in the impact assessment described in Chapter 4, *Environmental Consequences*, of this EIS/EIR.⁷

2.3.4.3. HCP Species

Wildlife and plant species included in the Draft Fort Ord HCP were selected based on their legal protection under the ESA and CESA, their listing status, and the relative importance of existing populations and habitats in the Plan Area to the continued survival of the species. A complete list of the eight plant and animal species covered by the Draft HCP is provided in Table 1-1 in Chapter 1, Introduction. For consistency and so that the Draft Fort Ord HCP will be applicable to both ITPs, the term “HCP species” is used instead of the term “covered species” throughout the Draft Fort Ord HCP and this EIS/EIR, unless use of the latter term is necessary for clarity.

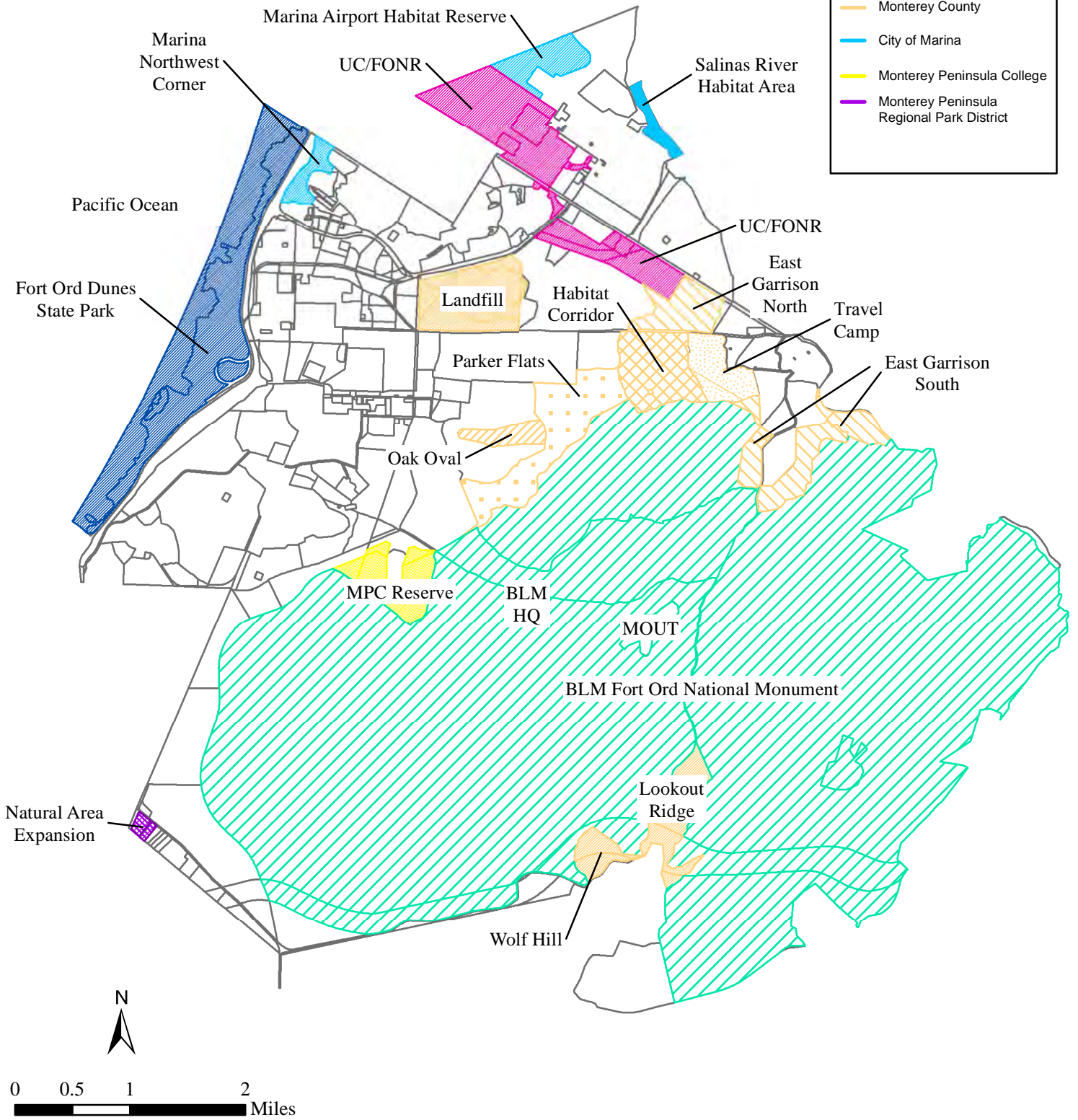
2.3.4.4. Covered Activities

This section describes the type and extent of activities within the Plan Area that would be covered by the final permits and for which the Draft Fort Ord HCP provides avoidance, minimization, and mitigation for impacts to HCP species. Additional details of the covered activities can be found in Section 3.3, *Covered Activities*, of the Draft Fort Ord HCP. All covered activities described in Chapter 3, *Covered Activities*, of the Draft Fort Ord HCP apply to the two permit applications (CDFW and USFWS). Listed below are the covered activities for which incidental take authorization from the USFWS and CDFW is sought (please also refer to **Table 2-9a**, **Table 2-9b**, and **Table 2-10**):

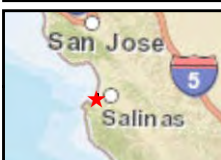
⁷ The ITPs provides take coverage for the identified activities on non-Federal lands only. Any activities that may result on take on Federal lands (i.e., BLM or Army) would be addressed through Section 7 consultation.

Jurisdiction

- BLM
- State Parks
- UC
- Monterey County
- City of Marina
- Monterey Peninsula College
- Monterey Peninsula Regional Park District



Document Path: C:\GIS\GIS_Projects\2444 FORAHCP\Final Products\2nd Admin Draft 20150807\Habitat Management Areas 20150807.mxd



Title: **HCP HMAs**
 File: HCPHMAs.pdf

Date: 8/7/2015
 Scale: 1 in = 1 mile
 Project: 2444



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Figure
2-4

- Development, including construction associated with development, in designated development areas;
- Allowable development in the HMAs;
- Future road corridors and infrastructure construction, operations, and maintenance in HMAs;
- Operation and management activities within HMAs, including:
 - Operation, maintenance, and management activities associated with roads, trails, and fuelbreaks;
 - Recreational and educational use; and
 - Beach management.
- HCP required action that may result in take, including:
 - Revegetation, restoration, and enhancement;
 - Prescribed burning and alternative vegetative management;
 - Non-native invasive species control;
 - Erosion control for habitat restoration and enhancement; and
 - Monitoring.

BLM would not receive take authorization for any activities described in this EIS/EIR or Draft Fort Ord HCP via the Federal or State ITPs, and is not currently requesting consultation under the ESA’s Section 7. The description of the BLM activities is generally consistent with those actions approved by BLM through its RMP, Activity-Level Plans, and individual implementation plans referred to in Section 1.3.2, *Role of the Bureau of Land Management*. These activities are not considered “covered activities” as defined in Section 1.5, *Covered Activities*, of the Draft Fort Ord HCP as BLM is not a permittee, and are included to provide a comprehensive description of activities within the Plan Area.

Table 2-9a. Covered Activities by Land Recipient

Land Recipient ^a	Covered Activities			
	Designated Development Areas	HMAs		
	Development	Allowable Development ^b	Future Road Corridors and Infrastructure Construction and O&M	O&M Activities and HCP Required Actions that may Result in Take
State Parks		X	X	X
BOT/CSUMB	X			
UC				
UC/NRS		X	X	X
UC	X			
MBEST				
County of Monterey	X	X	X	X
City of Marina	X	X	X	X
City of Seaside	X			
City of Del Rey Oaks	X			
City of Monterey	X			
MPC	X			X
MCWD	X			
MPRPD			X	X
BLM ^c	X ^d	X	X	X

^a A total of 876 acres (3%) of former Fort Ord will stay under Army jurisdiction as a military enclave (i.e., POM annex, reserve center). FORA may temporarily hold parcels after their transfer from the Army and prior to the designated land recipient to implement the Environmental Services Cooperative Agreement (ESCA) and the Capital Improvement Program (CIP) which includes transportation/transit, potable water augmentation, storm drainage, habitat management, public facility (fire station) improvements, and building removal.

^b Development with restrictions is allowed in HMA parcels to support public recreation and open space uses or teaching activities.

^c BLM is not receiving take authorization for any activities described in this EIS/EIR or Draft Fort Ord HCP via the Federal or State ITPs and is not currently requesting consultation under the ESA’s Section 7. The description of the BLM activities is generally consistent with those actions approved by BLM through its RMP, Activity-Level Plans, and individual implementation plans referred to in Section 1.3.2, *Role of the Bureau of Land Management*. These activities are not considered “covered activities” as defined in Section 1.5, *Covered Activities*, of the Draft Fort Ord HCP as BLM is not a permittee, and are included to provide a comprehensive description of activities within the Plan Area.

^d BLM ancillary facilities are located in an unrestricted development parcel.

Table 2-9b. FORA and Marina Capital Improvement Program Covered Activities

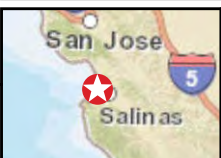
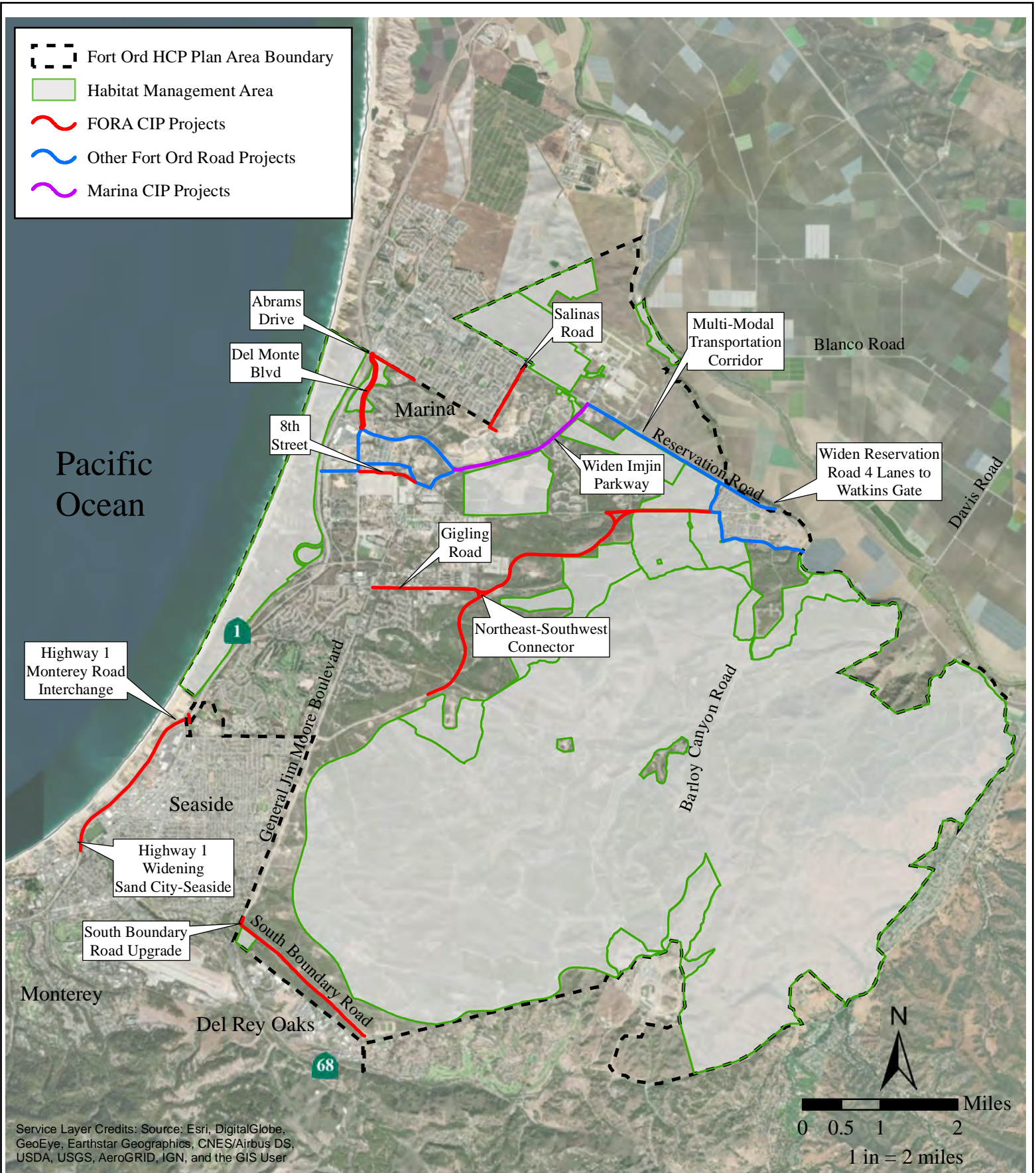
Project #	Description
Regional Improvements	
R3	Highway 1—Sand City limits to Seaside limits—Widen Highway 1 from Fremont Avenue to at least Canyon Del Rey Avenue and make interchange and related local road improvements in the vicinity of Canyon Del Rey and Fremont Avenues (only a portion of this is in the Plan Area).
R10	Highway 1—Monterey Road Interchange—Construct a new interchange at Monterey Road.
Offsite Improvements	
10	Del Monte Blvd Extension—Connection between Del Monte and intersection at Imjin/2 nd Avenue.
Onsite Improvements	
FO2	Abrams Drive (2 nd Avenue to Crescent Avenue)—Construct a new two-lane arterial from intersection with 2 nd Avenue easterly to the intersection with Crescent Court extension.
FO5	8 th Street (2 nd Avenue to Inter-Garrison Road)—Upgrade/construct new two-lane arterial from 2 nd Avenue to connection with Inter-Garrison Road.
FO6	Inter-Garrison Road (Eastside Road to Reservation Road)—Upgrade to a four-lane arterial from Eastside Road easterly to Reservation Road.
FO7	Gigling (General Jim Moore Boulevard to Eastside Road)—Upgrade/construct new four-lane arterial from General Jim Moore Boulevard easterly to Eastside Road.
FO9B (Ph-II)	General Jim Moore Blvd-Normandy to McClure—Widen from 2 to 4 lanes from Normandy Rd to McClure.
FO9B (Ph-III) [1]	General Jim Moore Blvd-s/o McClure to s/o Coe—Widen from 2 to 4 lanes from McClure to Coe.
FO9C	General Jim Moore Blvd-s/o Coe to S Boundary—Widen from 2 to 4 lanes from s/o Coe to South Boundary Rd.
FO11	Salinas Avenue (Reservation Road to Abrams Drive)—Construct new two-lane arterial from Reservation Road southerly to Abrams Drive.
FO12	Eucalyptus Rd—Upgrade to 2 lane collector from General Jim Moore Blvd to Eastside Rd to Parker Flats cut-off.
FO13B	Northeast-Southwest Connector (formerly Eastside Road or Parkway) (new alignment) (Eucalyptus Road to Inter-Garrison Road)—Construct new two-lane arterial from Eucalyptus Road to Inter-Garrison Road.
FO14	South Boundary Road upgrade (General Jim Moore Boulevard to Rancho Saucito Drive)—Upgrade to a two-lane arterial.
R 46 B	Imjin Parkway —Reservation Road to Imjin Road —Widen road to four lanes
Transit Capital Improvements	
T22	Intermodal Centers — Public Facilities Implementation Plan T-31 includes 3 elements: 1. Intermodal Transportation Center at 1 st Avenue s/o 8 th Street; 2. Park and Ride Facility at 12 th Street and Imjin Road; and 3. Park and Ride Facility at 8 th Street and Gigling Road.

All covered activities must incorporate the relevant avoidance and minimization measures described in Chapter 5, *Conservation Strategy*, of the Draft HCP to avoid or minimize impacts to HCP species. Part of the HCP concurrence for parties seeking coverage under the Draft HCP is demonstration that the avoidance and minimization measures have been incorporated or will be incorporated properly into proposed projects.

Development in Designated Development Areas

Covered activities in designated development areas include development projects and activities that would result in the removal of biological resources. The resources found on these parcels would be lost as a result of reuse, but are not considered essential to the long-term habitat conservation goal of the Draft Fort Ord HCP. Development in designated development areas would be required to maintain compliance with the stay-ahead provision (please refer to Section 7.6, *Stay Ahead Provision*, of the Draft HCP). Depending on the location, development in these areas would have to include HCP required avoidance and minimization measures as identified in Chapter 5, *Conservation Strategy*, of the Draft HCP.

Several Capital Improvement Program (CIP) projects would span multiple parcels in the designated development areas (**Figure 2-5**). These CIP projects include major transportation infrastructure implemented by FORA (**Table 2-9b**) and the City of Marina (**Figure 2-5, Table 2-9b**). Major transportation infrastructure projects passing through HMAs are identified in Section 2.3.3.4.4, *Future Road Corridors and Infrastructure Construction, Operation, and Maintenance in HMAs*.



Title: Future Road Corridors
File: Future Road Corridors.pdf

Date: 9/17/2019
Scale: 1 in = 2 miles
Project: 2444

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Figure
2-5

Table 2-10. HMA Allowable Development, Road Corridors and Infrastructure, and Preserved for Habitat Management

Land Recipient	Habitat Management Area	Total Area (acres)	Allowable Development (acres)	Road Corridors and Infrastructure (acres)		Marina Airport Expansion Activities	Fort Ord Recreational Trail and Greenway ^h Alignment	Preserved for Habitat Management (acres)
				Road ^a	MCWD			
BLM	FONM	14,645	292	–	0.5 ^b	–	–	14,353
State Parks	FODSP	979	142	–	2.6	–	–	834
UC/NRS	FONR	606	8	–	0.5	–	– ^c	598
County of Monterey	East Garrison Reserve — North	148	–	7.5	1.1	–	3.5	136
	East Garrison Reserve — South	275	–	–	–	–	–	275
	Habitat Corridor/Travel Camp	398	52	10.5	31.3	–	3.3 ^d	301
	Oak Oval Reserve	73	4	–	–	–	–	69
	Parker Flats Reserve	372	–	–	–	–	–	372
	Landfill Parcel	308	81	–	–	–	6.5	219 ^e
	Laguna Seca Recreational Expansion— Wolf Hill	79	30	–	–	–	–	49
	Laguna Seca Recreational Expansion— Lookout Ridge	196	110	–	–	–	–	86
City of Marina	Salinas River Habitat Area	43	–	–	–	–	0.7	42
	Marina Airport Habitat Reserve	130	–	–	–	30	4.4	95.6
	Marina Northwest Corner	63	58	–	–	–	– ^f	5 ^g
MPC	Range 45 Reserve	206	–	–	–	–	–	206
MPRPD	NAE	19	–	–	–	–	1.3	18
Non-Federal Total		3,895	485	18	35.5	33	18	3,312.5
Total		18,540	777	18	36	33	19	17,657

^a This includes impacts from the widening of Inter-Garrison Road.

^b Potential MCWD development is not part of BLM's 2% development allowance.

^c The conceptual alignment is proposed within Category 4 Borderlands buffer area along fuelbreaks so impacts are not included here to avoid double-counting.

^d The conceptual alignment is proposed within the Habitat Corridor HMA.

^e 150 acres is the landfill cap that will be managed as part of the Conservation Strategy. The Landfill Memorandum of Agreement (MOA) describes the site-specific mitigation that will take place.

^f The conceptual alignment is proposed within the development area within this HMA.

^g The acreage and configuration is to be determined once the boundaries of the Yadon's piperia population on the site have been identified; however, 5 acres is provided here to provide an estimate of species habitat that will be preserved (see Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP).

Allowable Development in HMAs

Although the primary focus in most of the HMAs is the implementation of HCP required mitigation and monitoring actions (please refer to Chapter 5, *Conservation Strategy*, and Chapter 6, *Monitoring and Adaptive Management*, of the Draft Fort Ord HCP), HMA-specific development allowances are included as covered activities in some HMAs to support public recreation and open space uses or educational activities (**Table 2-9a**, **Table 2-10**, and **Table 2-11**).

“Allowable development” is a category of covered activities that specifies the acreage of disturbance from development activities allowed in each of the HMAs. Development restrictions in the HMAs are derived from the HMP, County, or are self-imposed. The allowable development acreage ranges from 0 to 292 acres, and totals 777 acres for all HMAs. Allowable development does not include operation and management activities within HMAs, specified future road and infrastructure activities, or HCP required actions; these covered activities are described in Sections 2.3.3.4.3, *Operation and Management Activities in HMAs*; 2.3.3.4.4, *Future Road Corridors and Infrastructure Construction, Operation, and Maintenance in HMAs*; and 2.3.3.4.5, *HCP Required Activities* below. Allowable development activities are separate covered activities under the Draft HCP. Allowable development does not refer to a development activity that would be authorized by the USFWS, CDFW, or Permittees through permit issuance or HCP approval. As covered activities under the Draft HCP, take associated with allowable development would be authorized; however, relevant Permittee approvals (e.g., grading permits, building permits, etc.) and environmental compliance would still be required for allowable development actions.

Recreational and educational use are covered activities for all HMAs; however, public access is limited or prohibited within the UC FONR and Range 45 Reserve. Public access is only currently permitted at the FONM and FODSP along designated trails. Several other HMAs also anticipate allowing future public access along designated trails. Private access will be permitted within all HMAs, with permission from the landowner. Recreational access is allowed on established routes within BLM’s current RMP.

The Landfill Parcel and Marina Northwest Corner HMAs are designated as mixed-use parcels that include both a designated development area and HMA. As such, development covered activities in portions of these parcels would be consistent with the Reuse Plan and local area plans. Required AMMs are identified in Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP.

For a summary of the allowable development activities covered under the Draft HCP, please refer to Section 3.3.2, *Allowable Development in HMAs*, of the Draft HCP for more details.

Operation and Management Activities in HMAs

Maintain and Improve Roads and Trails

Many existing roads and road segments pass through HMAs. These include: named, paved roads through the FONM, Habitat Corridor/Travel Camp, and East Garrison HMAs such as Barloy Canyon Road, Hennekens Ranch Road, Watkins Gate Road, Parker Flats Road, and Eucalyptus Road; unpaved roads through habitat areas; the existing roads in the coastal zone to be transferred to State Parks; and others. Road closures, rehabilitation, and/or relocations of some of these roads may be considered, depending on their projected uses and potential effects on HCP species and natural communities. The anticipated future road corridor construction, operation, and maintenance activities are described below in Section 2.3.3.4.4, *Future Road Corridors and Infrastructure Construction, Operations, and Maintenance in HMAs*.

The purpose of this activity is to maintain and improve roads and trails in the HMAs that are necessary for land management purposes and to provide opportunities for compatible public access on a system of well-defined and maintained trails. **Figures 2-6** and **2-7** depicts the existing road and trail networks in FONM and FONR, respectively. Existing road and trail systems that are redundant or not needed would be eliminated or restored. Needed transportation systems would be rerouted away from occupied habitat of HCP species where possible—especially Federal and State listed species. Activities to maintain and improve roads and trails apply to all HMAs and would include the following:

- Maintain paved roads and associated shoulders with appropriate materials and at prescribed widths;
- Maintain unpaved roads and associated vegetated shoulders with appropriate materials and at prescribed widths;
- Maintain trails to include a compacted soil surface at a prescribed width;

- Close and rehabilitate redundant or unneeded road and trail systems within the HMAs; and
- Develop new routes when needed outside occupied habitat of Federal and State listed species to the maximum extent possible.

Table 2-11. Covered Activities by HMA

HMA ^c	Covered Activities											
	HCP Required Actions that may Result in Take ^a						O&M Activities				HMA Allowable Development	Future Road Corridors and Infrastructure
	Revegetation, Restoration and Enhancement	Prescribed burning ^b / Alternative Management	Non-Native Invasive Species Control	Erosion Control	Evaluate Alternatives to Burning	Monitoring	Road and Trail Maintenance	Fuelbreak Maintenance	Beach Management	Recreational and Educational Use		
BLM												
Fort Ord National Monument	X	X	X	X	X	X	X	X		X	X	X
State Parks												
Fort Ord Dunes State Park	X		X	X		X	X		X	X	X	X
UC/NRS												
Fort Ord Natural Reserve	X	X	X	X	X	X	X	X		X	X	X
County of Monterey												
East Garrison Reserve (North and South)	X	X	X	X		X	X	X		X		X
Habitat Corridor/Travel Camp	X	X	X	X		X	X			X	X	X
Oak Oval Reserve	X	X	X	X		X	X	X		X	X	
Parker Flats Reserve	X	X	X	X		X	X	X		X		
Landfill Parcel	X		X	X		X	X			X	X	X
Laguna Seca Recreational Expansion (Wolf Hill and Lookout Ridge)	X	X	X	X		X	X			X	X	
City of Marina												
Salinas River Habitat Area	X	X	X	X		X	X			X		X
Marina Airport Habitat Reserve	X	X	X	X		X	X	X		X		X
Marina Northwest Corner	X	X	X	X		X	X			X	X	X
Monterey Peninsula College												
Range 45 Reserve	X	X	X	X		X	X	X		X		
Monterey Peninsula Regional Park District												
Natural Area Expansion	X	X	X	X		X	X			X		

X = Covered activity takes place within HMA and there is potential for take. Impact analysis (Chapter 4, *Environmental Consequences*) provides qualitative and/or quantitative impact description.

^a Covered activity may result in temporary impacts but provides long-term net benefit to HCP species.

^b Prescribed burning is a covered activity in this HMA. However, Munitions and Explosives of Concern (MEC) cleanup activities are not covered under this HCP and instead are covered by USFWS, Army, and FORA under separate authorizations.

^c BLM is not receiving take authorization for any activities described in this EIS/EIR or Draft Fort Ord HCP via the Federal or State ITPs and is not currently requesting consultation under ESA's Section 7. BLM's activities are not considered "covered activities" as defined in Section 1.5, *Covered Activities*, of the Draft Fort Ord HCP, as BLM is not a permittee, and are included to provide a comprehensive description of activities within the Plan Area.

Maintain Fuelbreaks

The purpose of this covered activity is to maintain fire and emergency access and fuel reduction standards around and through the HMAs to provide for adequate management during prescribed burns and to reduce fire threats to communities at risk. A fuelbreak is a type of fuel buffer that is meant to slow or stop the spread of fire. The primary responsibility for providing adequate fuelbreaks or other appropriate separation between the reserve and developed private lands or lands designated for future development rests with the designated development lands (Chapter 5, *Conservation Strategy*, of the

Draft HCP). However, fuel reduction measures within the HMAs would be used to complement those required fuelbreak measures on Borderland parcels adjacent to the HMAs.

The locations of fuelbreaks on FONM and FONR are mapped (**Figures 2-6 and 2-8**); however, the locations of the fuelbreaks on the other HMAs are not known at this time. Fuelbreaks would typically be maintained along the HMA borders (i.e., Borderlands) and/or existing roads or fuelbreaks. Activities to provide and/or maintain adequate fuelbreaks would include: 1) maintaining and managing fuelbreaks of variable width depending upon fuel type, fuel loading (tons per acre), topographic position, and features of the area; and 2) implementing special fuels management strategies if determined necessary to reduce the risk of wildfire adjacent to Borderlands.

Recreation and Educational Use

HMA recreational and educational use would be a covered activity. Although the primary focus in most of the HMAs is the implementation of HCP required mitigation and monitoring actions (please refer to Chapters 5 and 6 of the Draft HCP), development with restrictions is included as a covered activity in all HMAs to support public recreation and open space uses or teaching and research activities. Public access is only currently permitted at the FONM and FODSP along designated trails. Several other HMAs also anticipate allowing future public access along designated trails. Educational use may be implemented in the form of guided tours or educational panels within the HMAs, especially in the interests of promoting actions in the community that would aid in preservation of native habitats and species. Recreational use may include active and passive activities, such as hiking, walking, running, biking, bird watching, horseback riding, and wildlife viewing. These activities would be designed and conducted to minimize adverse effects to all HCP species.

Beach Management

Beach management activities include marine mammal rescue, assistance of stranded boats, law enforcement, removal of hazardous materials, and any other activities associated with public safety. All beach management activities are covered by this HCP. These activities would be implemented in a way that would minimize impacts on any HCP species (see Chapter 5, *Conservation Strategy*, of the Draft HCP). These management activities are unpredictable and difficult to quantify, but the amount of take would likely be small.

Future Road Corridors and Infrastructure Construction, Operations, and Maintenance in HMAs

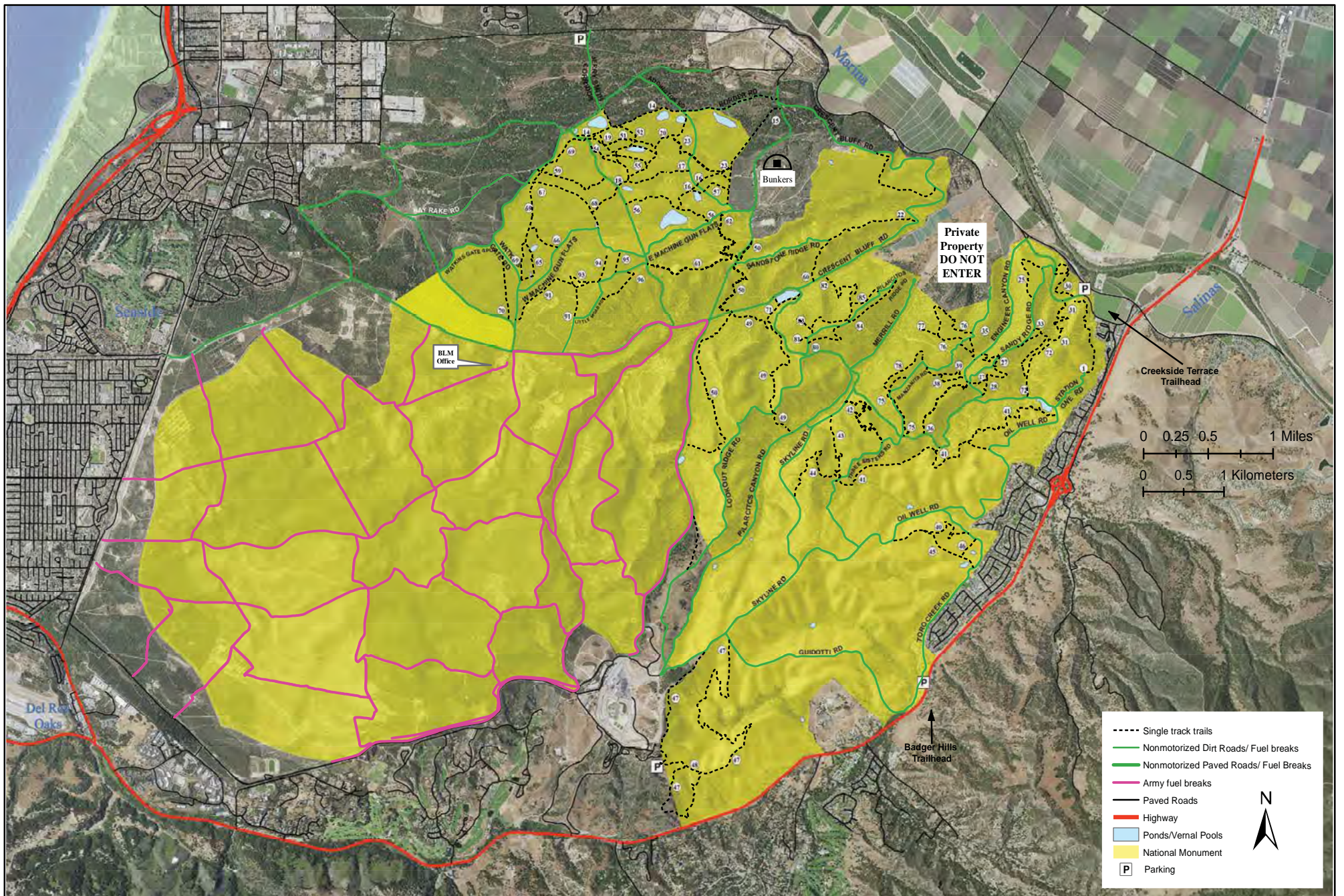
Road corridors and infrastructure construction, operations, and maintenance in HMAs would be covered activities under the Draft HCP. The following covered activities would typically be implemented by a Permittee or third party applicant that is not the HMA land owner or manager.

Future Road Corridors in HMAs

A MMTC linking Salinas to Fort Ord by a variety of transportation methods, including light rail, was proposed through the UC/NRS FONR HMA (South Reserve) in the Reuse Plan and HMP. The alignment of the MMTC has since been changed and associated easements dissolved. The corridor was also proposed to follow the existing alignment of Inter-Garrison Road and the proposed East Garrison Connector Road (described above) through adjacent HMAs (i.e. East Garrison North, Habitat Corridor/Travel Camp, and the Landfill Parcel) (**Figure 2-9**). This alignment of the MMTC would have encompassed the future widening of Inter-Garrison Road (FORA CIP Project FO6, **Table 2-9b**). Therefore, with the MMTC alignment no longer proposed along Inter-Garrison Road, the Inter-Garrison Road widening would encroach into the East Garrison North (i.e., 7.5 acres) and Habitat Corridor/Travel Camp (10.5 acres) HMAs based on conceptual plans. The approved MMTC alignment avoids impacts to all HMAs.

The roadway along the Marina Northwest Corner parcel is proposed as a four-lane arterial with a 122-foot-wide ROW. The alignment of this road would avoid any Yadon's piperia, including a suitable buffer area. The roadway would run adjacent to the reserve's northwest boundary and not through it. Construction and maintenance of these two roads are covered activities under this Draft Fort Ord HCP as development activities in designated development areas.

The City of Marina is in the process of preparing an Airport Master Plan Update for the Marina Municipal Airport that was not previously addressed in the HMP. This proposed plan will result in future improvements at the airport, including a future road that may be constructed on the eastern end of the runway to provide access to the designated development area to the north of the airport. Due to Federal Aviation Administration regulations, the road may be required to encroach into the Salinas River HMA and impact approximately three acres. The future operation and maintenance of the road would not



Source: BLM Fort Ord National Monument Route Map - April 2016








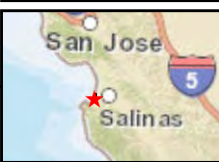
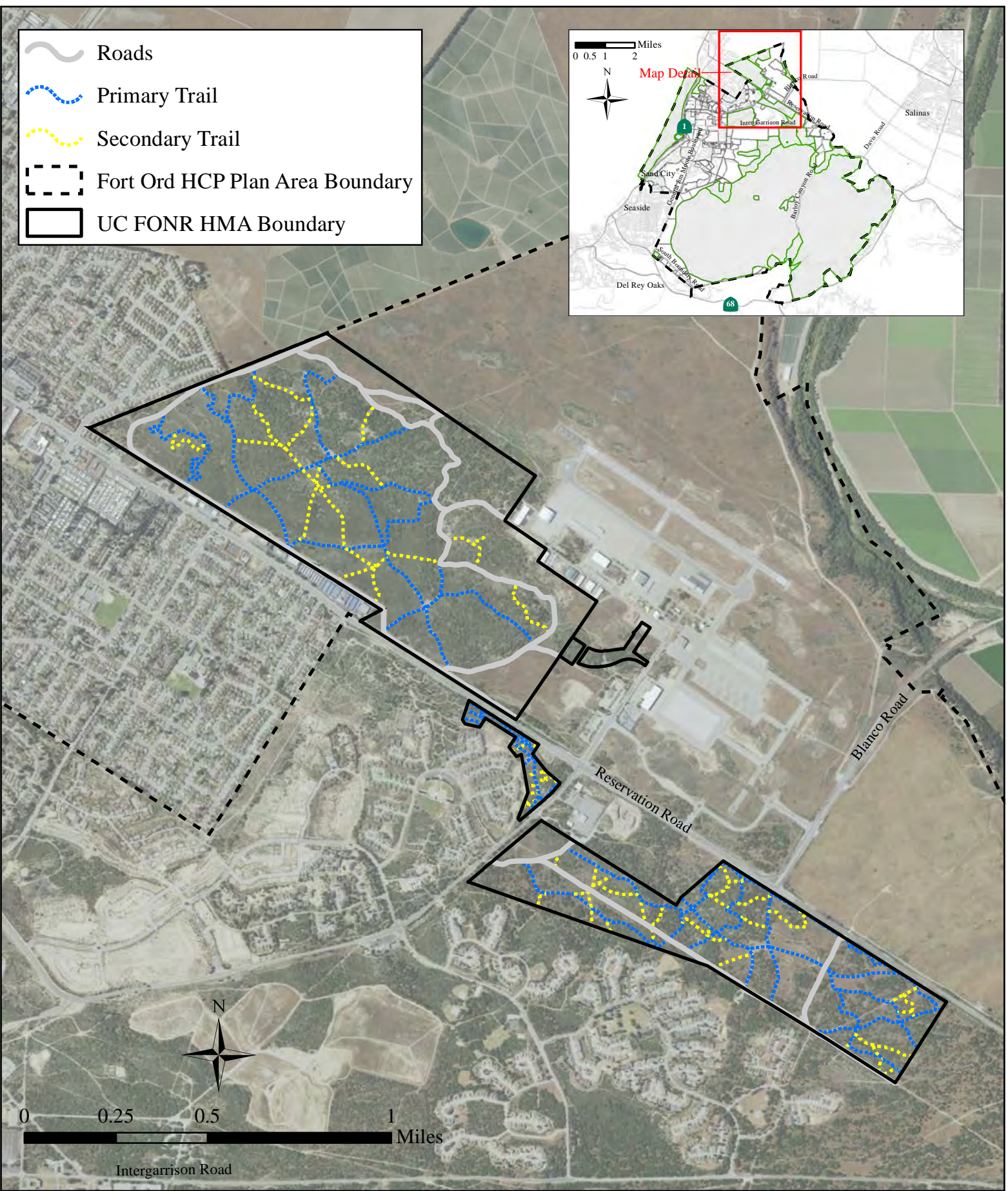
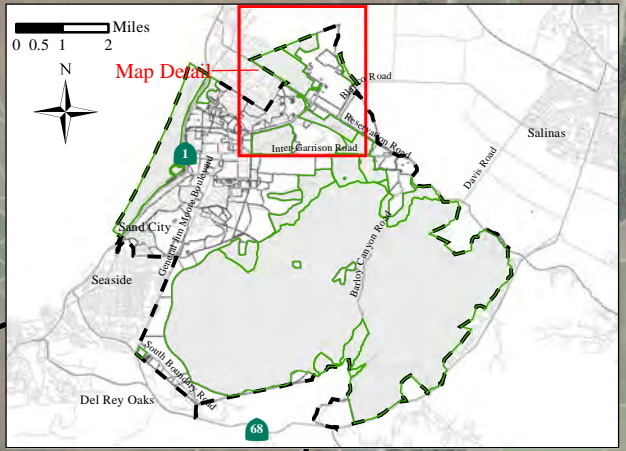
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Date:	08-31-17
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Project:	2444



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-  Roads
-  Primary Trail
-  Secondary Trail
-  Fort Ord HCP Plan Area Boundary
-  UC FONR HMA Boundary






Title: **UC FONR
Roads and Trails**
File: FONRRoadsTrails.pdf

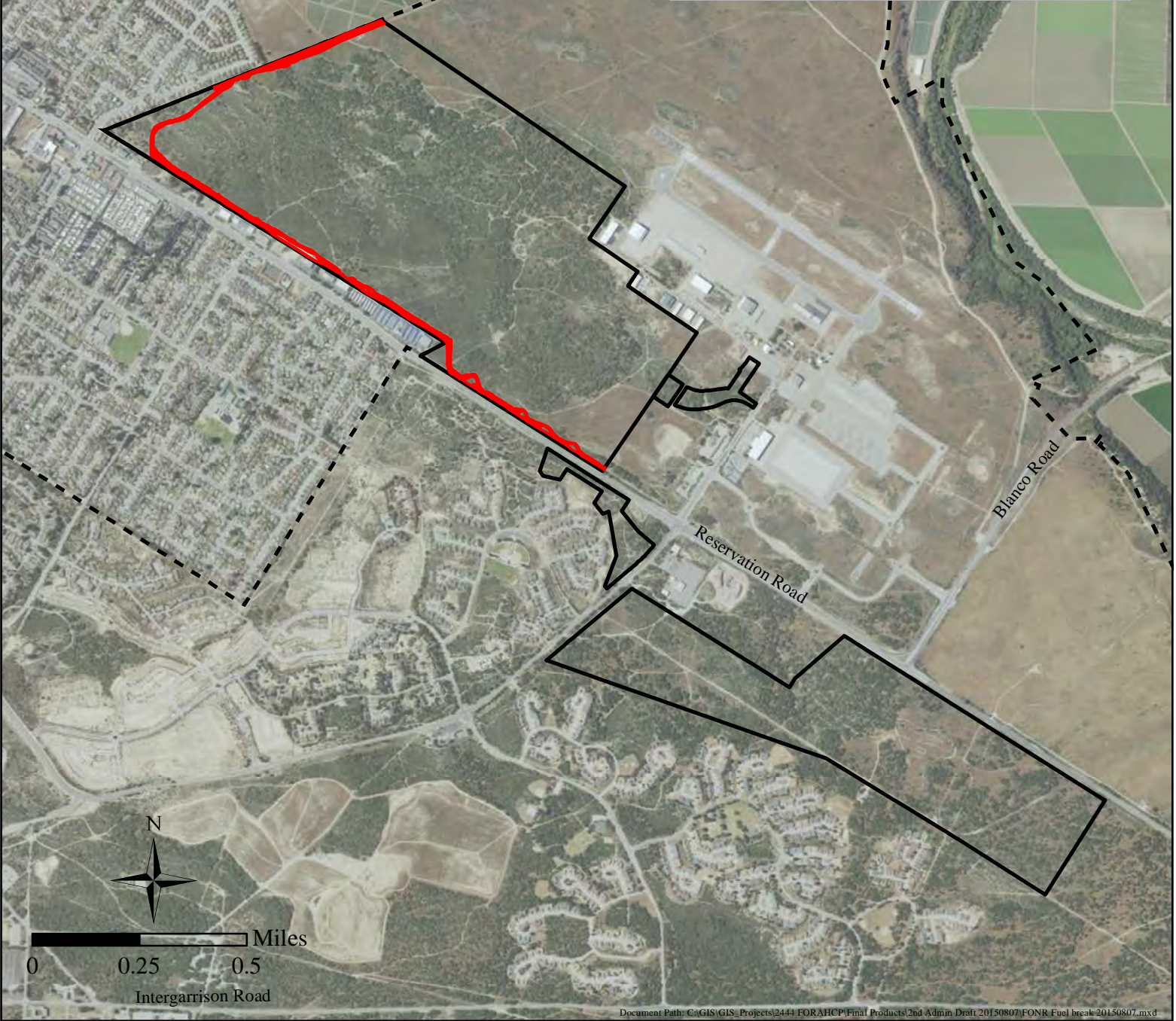
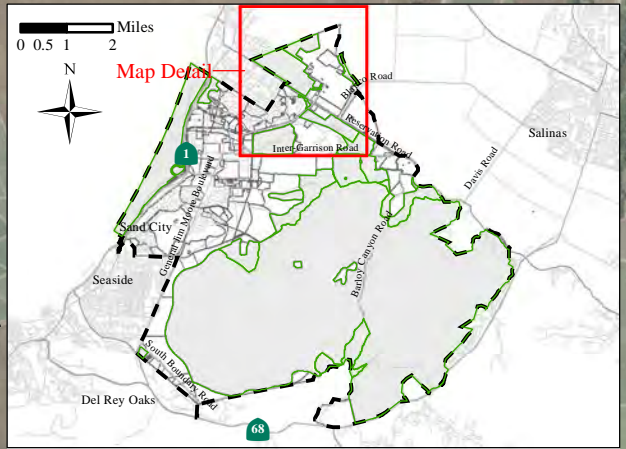
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Scale: 1 in = 0.3 mile
Project: 2444



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Figure
2-7

-  Fort Ord HCP Plan Area Boundary
-  UC FONR HMA Boundary
-  Fuelbreaks



Document Path: C:\GIS\GIS_Projects\2444 FOR\HCP\Final Products\2nd Admin Draft\20150807\FONR Fuel break 20150807.mxd



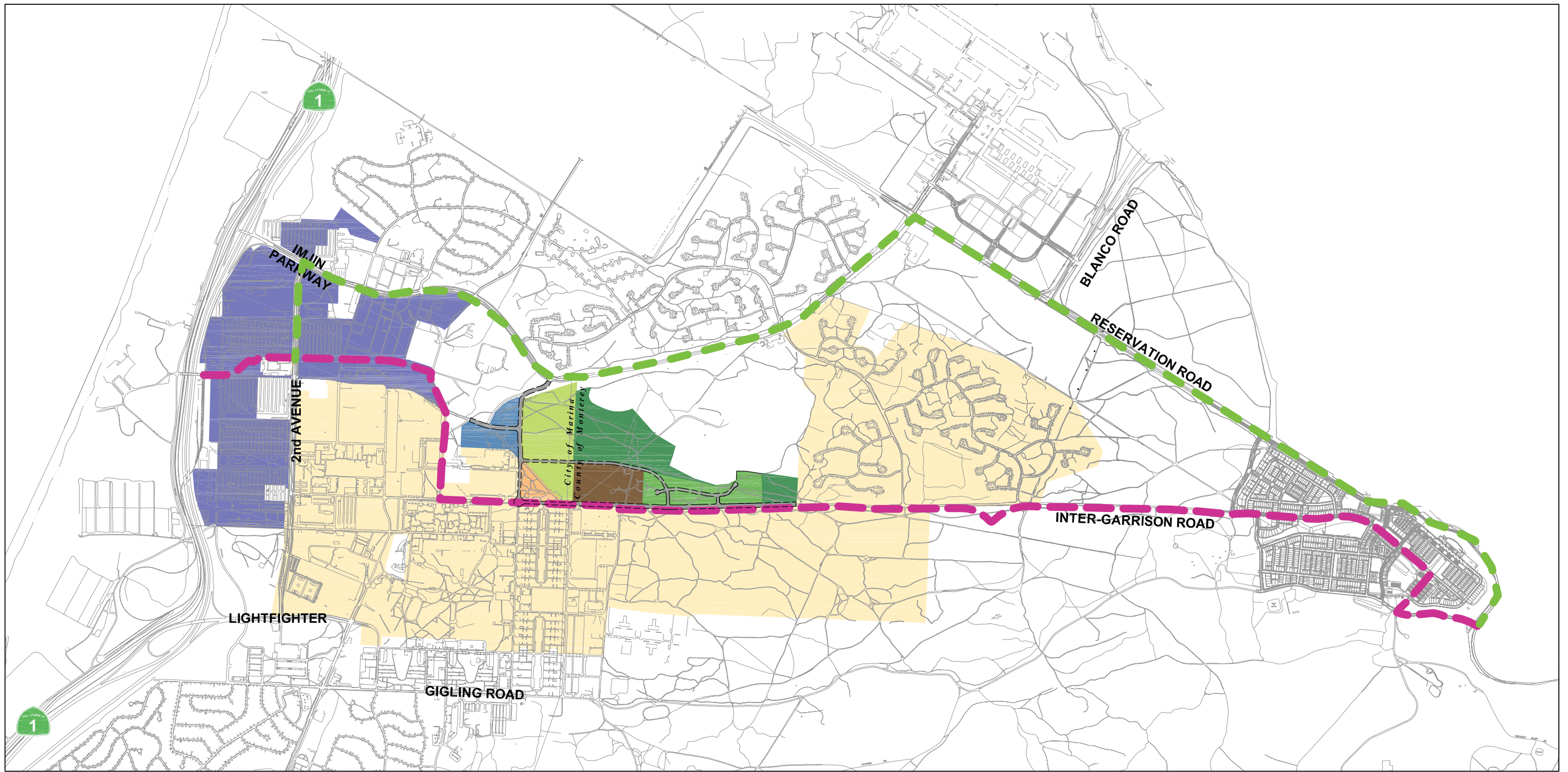
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 File: FONRFuelbreaks.pdf

Date: 8/7/2015
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 Project: 2444

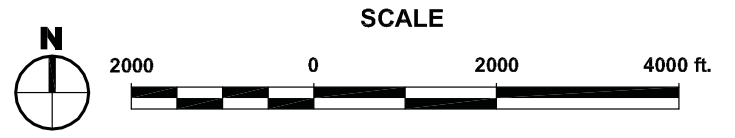


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Figure
2-8



- | | | | |
|--------------------------------------|-------------------------|------------------------------------|---|
| Whispering Oaks Development (County) | U.C. Development Parcel | The Dunes of Monterey Bay (Marina) | Proposed Multi-Modal Corridor Alignment Alternative 1 |
| Whispering Oaks Habitat Conservation | C.S.U.M.B Property | Golden Gate University | Proposed Multi-Modal Corridor Alignment Alternative 2 |
| Whispering Oaks MST Transit Parcel | City of Marina Property | | |



Source: Whitson Engineers, 2012



Title: Multi-Modal Transportation Corridor (Alternative 1)
 File: MMTC.pdf

Date: 4/20/2012
 Scale: N/A
 Project: 2444



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Figure
 2-9

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result in additional impacts as the road ROW would be maintained as paved and/or gravel areas lacking suitable HCP species habitat.

Utilities, Easements, and Rights-of-Way Construction, Operation, and Maintenance in HMAs

Utilities, easements, and ROWs exist or may exist in HMAs throughout the Plan Area. Water, gas and electric lines, and ancillary facilities to support these services (e.g., water tanks, towers) exist and would likely need to be improved and increased as base redevelopment proceeds. The requirements to avoid and restore habitat disturbed within the HMAs and corridor areas for operation, maintenance, and replacement of utility systems in utility easement areas in the HMAs are the same as applied to the fee title grantee of the HMA and/or corridor area. Coordination of the proposed actions and compliance with the requirements of the Draft Fort Ord HCP are the responsibility of the HMA owner and manager.

The following section provides the projected operation and maintenance activities and proposed improvement projects in habitat areas for the MCWD. The operation and maintenance of PG&E transmission lines within HMAs are discussed below in Section 2.3.3.5, *Activities Not Covered in the Fort Ord HCP*. However, in the event that additional utility requirements are identified in habitat areas or new utility requirements through habitat areas become necessary to support reuse, they would need to be addressed separately from the permitted uses of the Draft HCP (please refer to Chapter 8, *Assurances and HCP Amendments*, of the Draft HCP). The impact assessment for the construction of new MCWD facilities in HMAs assumes that ground-disturbing effects will be the same as development and considered permanent. However, for some of the facilities (e.g., pipelines), the ground disturbance will be temporary and HCP plant species may be able to recolonize the disturbed areas. The maintenance activities are assumed not to result in take as the facilities and access easements would be maintained as developed areas lacking suitable HCP species habitat.

Marina Coast Water District Facilities

In 1997, FORA selected the MCWD from among other competing companies to receive the Fort Ord water and wastewater collection systems. The conveyance process was completed in late October 2001 when the Army transferred the deeds to FORA, and FORA in turn transferred the property to MCWD. In June 2004, MCWD released its CIP for former Fort Ord that identifies the construction of new storage tanks and booster/lift stations and installation of wells and pipelines within or adjacent to HMAs. Since the 2004 CIP, the MCWD has reprioritized the projects and identified new projects that are required to supply water to the former Fort Ord (**Figure 2-10** and **Table 2-12**). Descriptions of the operation and maintenance activities and proposed projects are provided in Appendix D of the Draft Fort Ord HCP. Covered MCWD projects within HMAs are summarized in **Table 2-12**.

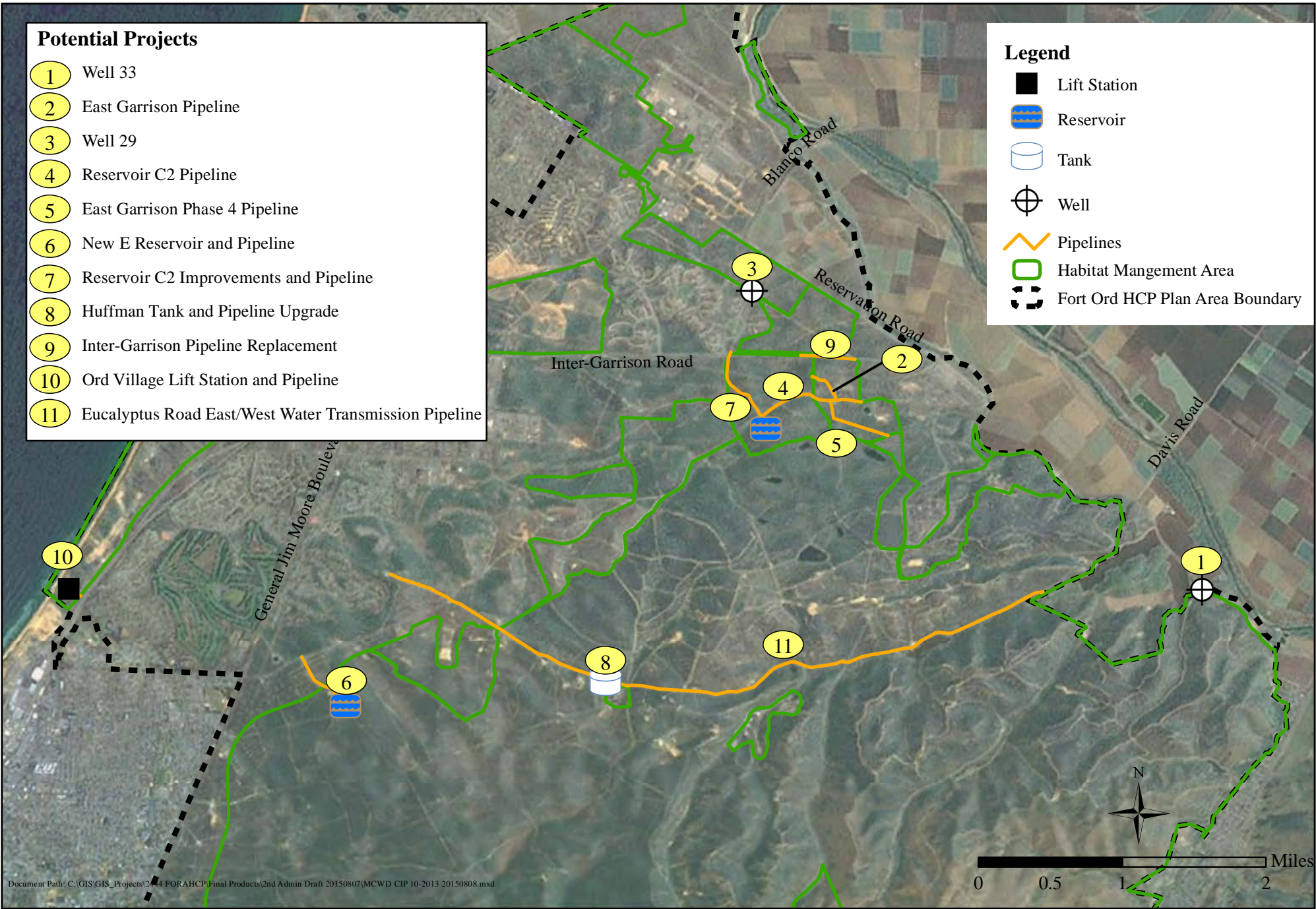
The MCWD facilities and associated activities within HMAs include: new water distribution pipelines and tank improvements and construction within the Habitat Corridor/Travel Camp, East Garrison North, and FONM; well abandonment within the UC FONR; and improvements to the wastewater lift station within the State Parks property (**Table 2-12** and **Figure 2-10**). Proposed development by MCWD in the FONM (i.e., Huffman Tank and pipeline) would occur in existing easements granted to MCWD from the Army, but may require a ROW issued by BLM for a 0.5-acre portion of the activity. This activity on the FONM would be part of BLM's 2% development allowance, and only if approved and authorized under a BLM ROW and reinitiation of Section 7 consultation, if necessary. Thus, it is assumed that this MCWD development activity would be included as part of the 292 acres of allowable development in the FONM.

The construction of new facilities as described herein for the MCWD are covered activities under the Draft Fort Ord HCP. If HMA lands are impacted as a result of these operation and maintenance activities, MCWD will be responsible for restoring impacted areas to their previous condition. The future operation and maintenance of these facilities would not result in additional impacts as the existing access roads and easements would be maintained as paved and/or gravel areas lacking suitable Draft Fort Ord HCP species habitat.

Fort Ord Recreational Trail and Greenway

FORTAG is proposed as a continuous 12-foot wide paved bikeway with an open-space buffer on both sides incorporating habitat, existing parks, playing fields, developed outdoor recreation sites, associated amenities, unpaved trails, and agriculture (**Figure 2-11**).

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- ### Potential Projects
- 1 Well 33
 - 2 East Garrison Pipeline
 - 3 Well 29
 - 4 Reservoir C2 Pipeline
 - 5 East Garrison Phase 4 Pipeline
 - 6 New E Reservoir and Pipeline
 - 7 Reservoir C2 Improvements and Pipeline
 - 8 Huffman Tank and Pipeline Upgrade
 - 9 Inter-Garrison Pipeline Replacement
 - 10 Ord Village Lift Station and Pipeline
 - 11 Eucalyptus Road East/West Water Transmission Pipeline

- ### Legend
- Lift Station
 - Reservoir
 - Tank
 - Well
 - Pipelines
 - Habitat Mangement Area
 - Fort Ord HCP Plan Area Boundary

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Title: **MCWD Potential Projects**

File: MCWDProject.pdf

Date: 12/10/2014

Scale: N/A

Project: 2444



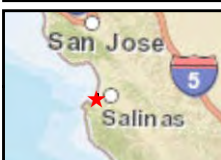
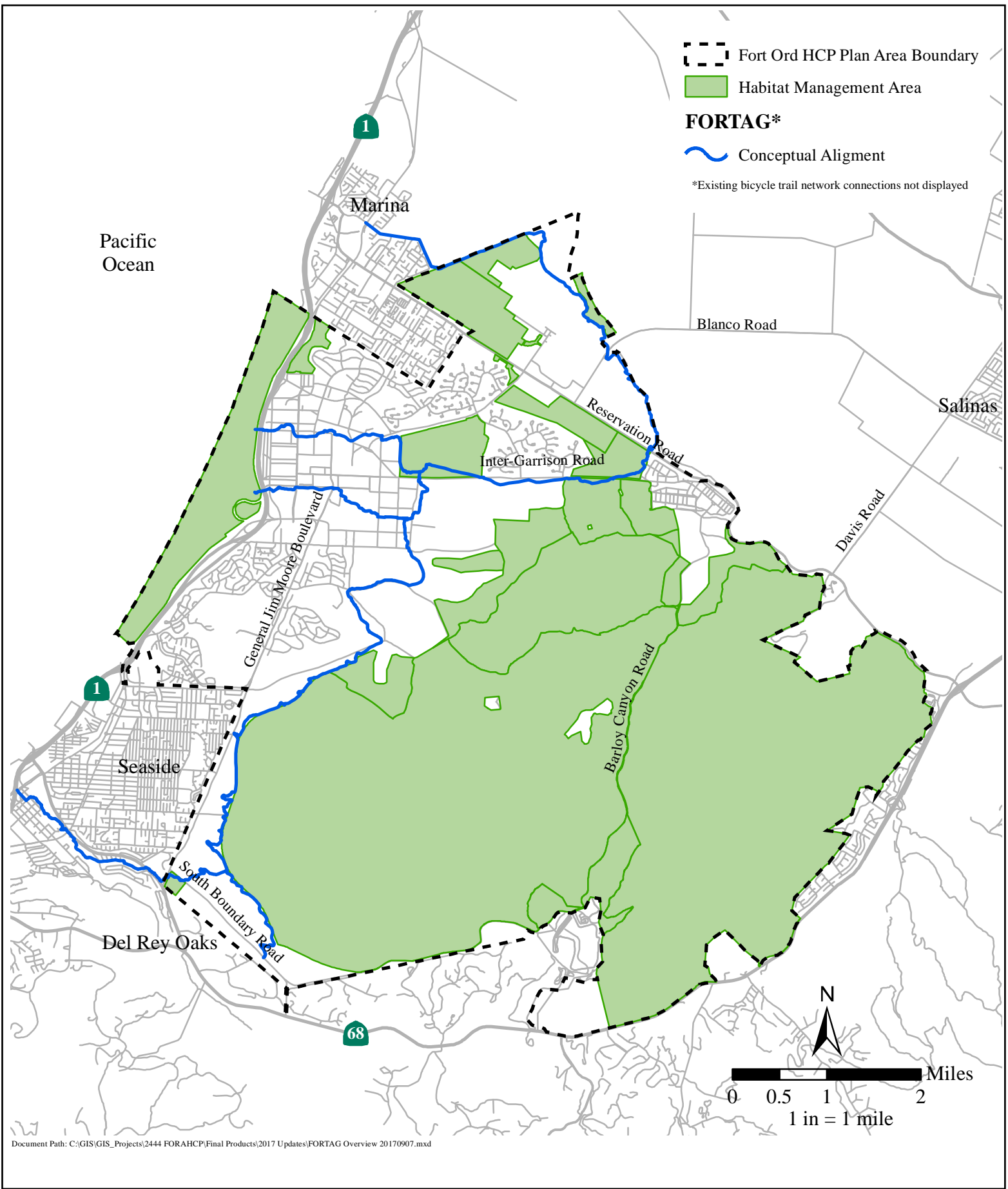
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Figure
2-10



Title: **Conceptual FORTAG Alignment**

File: FORTAG.pdf

Date: 9/7/2017

Scale: 1 in = 1 mile

Project: 2444



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Figure **2-11**

Table 2-12. Covered MCWD Projects within HMAs

MCWD Project	Project Description	Location	Impact Area	HMA
East Garrison Pipeline	Install pipeline from Reservoir B4/B5 to East Garrison	South of Inter-Garrison Road within Habitat Corridor/Travel Camp HMA	1,348 linear feet with 100-foot wide corridor = 3.1 acres total	Habitat Corridor/Travel Camp
Well 29	Destroy Well 29; add standby mode and disinfection	Within MCWD easement on north side of Old County Road within FONR South	0.5 acre	FONR (South Reserve)
Reservoir C2 Pipeline	Install new pipeline from Reservoir C2 to Watkins Gate Road	Pipeline alignment follows Watkins Gate Road and existing gravel road from Reservoir C2 to Watkins Gate within Habitat Corridor/Travel Camp	4,600 linear feet with 100-foot wide corridor = 10.6 acres total	Habitat Corridor/Travel Camp
East Garrison Phase 4 Pipeline	Install new pipeline to serve East Garrison along unpaved roads	Alignment follows unpaved roads within Habitat Corridor/Travel Camp	2,761 linear feet with 100-foot wide corridor = 6.3 acres total	Habitat Corridor/Travel Camp
Reservoir C2 and Pipeline	Construct pipeline from tank to Inter-Garrison Road	Pipeline alignment follows unpaved road from Reservoir C2 to Inter-Garrison Road (or alternatively may follow existing trail straight downhill through vegetation); portion of alignment lies within Habitat Corridor/Travel Camp; however, the northern portion may fall within designated development parcel (to be determined during design)	3,458 linear feet with 100-foot wide corridor (7.9 acres); existing parcel 0.92 acre but need 1.92 acres for tank improvements and operation = 9.8 acres total	Habitat Corridor/Travel Camp
Huffman Tank and Pipeline Upgrade	Replace Huffman Tank and upgrade pipeline from tank to Eucalyptus Road	FONM and within BLM Headquarters parcel; portion of pipeline runs cross-country (approximately 4,000 feet) but upgrade would occur in existing roadway; tank replacement would occur within 0.5-acre footprint but may need to be in new location	Assume pipeline within existing roadway but tank construction may require impacts to vegetated area = 0.5 acre total	FONM
Inter-Garrison Pipeline Replacement	Replace water supply pipeline along Inter-Garrison Road	Inter-Garrison Road, possibly along road shoulder but would be off-pavement and likely affect vegetation	Assume 2,000 linear feet and 50-foot wide corridor plus 50 square feet on both ends (100,100 square feet) = 2.3 acres total	East Garrison North; Habitat Corridor/Travel Camp
Wastewater CIP Project—Ord Village Lift Station	Upgrade existing pump station and pipeline	0.91-acre parcel on southern end of State Parks, east of Highway 1	1.91 acres with 300-foot pipeline with 100-foot wide corridor (0.69 acre) = 2.6 acres total	State Parks

This development, not previously considered in the HMP, will intersect development parcels and HMAs, including HMAs that do not have development with restrictions allowances under the HMP or Draft HCP (i.e., East Garrison North, Habitat Corridor, Salinas River, and NAE HMAs). The “greenway” component is based on the concept of maintaining an open-space buffer extending at least 150 feet on each side of the trail for the majority of its length and the linked bikeways will be on development parcels. The proposed alignment is in conceptual planning phase. As currently proposed, the northern loop of FORTAG encircles Marina, following a 13.08-mile route that includes 2.56 miles of the existing “Coastal Recreational Trail.” The southern loop of FORTAG encircles Seaside and bisects Del Rey Oaks, following a 15.90-mile route that includes 4.73 miles of the existing coastal trail system. The two main loops combined and connected total 29.91 miles of trail, including 7.47 miles of the existing “Coastal Recreational Trail.” Additional segments are being considered as potential alternatives or future pursuits. The main FORTAG trail system connects with spurs that lead into existing and planned municipal bike/pedestrian infrastructure. Several sections of the paved trail would be accompanied by nearby unpaved trails running loosely parallel to the main paved trail. Many of these unpaved trails already exist. It is likely that FORTAG would involve three underpasses and one overpass for pedestrians and bikes.











Due to its conceptual nature and for the purposes of this environmental analysis, it is assumed that the paved trail will be 12 feet wide, with median striping and 2-foot buffers on either side to facilitate a safe line of sight and to reduce obstruction by overhanging vegetation. It is also assumed that the trail would be constructed within HMAs, a 52-foot-wide construction limit, with the exception of a few designated locations for staging and underpass construction, to provide a sufficiently wide corridor for future design, planning, and engineering to occur and account for any potential constraints in the alignment location. The future operation and maintenance of the trail would not result in additional impacts as the trail right-of-way would be maintained as paved and/or gravel areas lacking suitable HCP species habitat.

City of Marina – Airport Master Plan Update

The City of Marina adopted an Airport Master Plan Update for the Marina Municipal Airport in June 2018 that was not previously addressed in the HMP (**Figure 2-12**). This plan would result in future improvements at the airport and an updated long-term development program for the continued operation of a safe, efficient, and environmentally sensitive airport facility. Potential airside (e.g., runways, taxiways, navigational aids, markings, lighting) and landside (e.g., hangars, apron areas, terminal building) development alternatives are in the process of being developed. At present, Runway 11-29 is planned to be extended from 3,483 feet to 5,800 feet in the long term. While the current runway length is adequate to meet the needs of current users, to accommodate more activity by larger turboprop and small business jet, a runway length of 4,000 to 5,000 feet would be needed. The runway extensions, corresponding modified taxiways, and runway safety zones would extend into a portion of the Marina Airport HMA west of the runway, which may result in impacts to approximately 30 acres with the 130-acre HMA. In addition, a future road may be constructed on the eastern end of the runway to provide access to the designated development area to the north of the airport. Due to Federal Aviation Administration regulations, the road may be required to encroach into the Salinas River HMA and impact approximately three acres. The future operation and maintenance of the road would not result in additional impacts as the road right-of-way would be maintained as paved and/or gravel areas lacking suitable HCP species habitat.

HCP Required Activities that may Result in Take

HCP required actions described in Chapter 5, *Conservation Strategy*, and Chapter 6, *Monitoring*, of the Draft HCP would be covered activities under the Draft HCP. Avoidance and minimization measures and mitigation measures implemented as part of the conservation strategy are HCP required actions that are designed to avoid, minimize, or mitigate for the impacts of the activities covered under the Draft HCP. These actions are mandatory to meet ESA and CESA permit requirements. All HCP required actions are expected to result in a net long-term benefit for HCP species and natural communities. Avoidance and minimization measures were designed to minimize or avoid impacts to HCP species (Chapter 5, *Conservation Strategy*, of the Draft HCP); however, some HCP required actions may have temporary or short-term adverse effects and may result in limited take of covered species (Chapter 4, *Impact Assessment and Levels of Take* of the Draft HCP and Chapter 4, *Environmental Consequences* of the EIS/EIR). The following is a summary of those HCP required actions that may result in impacts to HCP species.

-  Fort Ord HCP Plan Area Boundary
-  3/4 Mile Visibility Cone
-  Potential Public Access Road
-  Future Road Area (3 Acres)
-  Runway Expansion Area (Approx. 30 Acres)
-  1,000' Equipment Buffer Area (39 Acres)
-  Aviation Development Reserve Area
-  Revenue Support Area
-  Habitat Management Area (HMA)
-  Recommended Habitat Reserve Replacement Area (Approx. 38 Acres)



Source: City of Marina, August 27, 2018



Title: **Marina Municipal Airport Master Plan Update Activities**

File: Marina Airport Master Plan Update Activities.pdf

Date: 10/16/2018

Scale: N/A

Project: 2444



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Figure
2-12

- **Revegetation, restoration, and enhancement.** Revegetation, restoration, and enhancement would generally be disruptive only in the short term because these activities may involve soil disturbance, removal of undesirable plants, and limited grading. All habitat enhancement and restoration activities conducted in the HMAs that are consistent with the requirements of the Draft HCP would be covered by the permits.
- **Prescribed burning and alternative vegetative management.** Prescribed fire and wildfire suppression strategies play an important role in perpetuating desired future conditions for stands of maritime chaparral in the HMAs. Prescribed burning would be conducted on a rotational basis with a patchwork of burned and unburned areas to maintain food and shelter for HCP animal species inhabiting planned burn sites. Alternative vegetative management would be conducted in areas where prescribed burns are not feasible and pose a risk to public safety. Techniques may include mechanical mowing, livestock grazing, and trimming.
- **Non-Native Invasive species control.** Integrated vegetation management methods would be used to control the spread and reduce the abundance and distribution of noxious weed infestations. The goal is to limit the overall area of individual infestations to no more than 5% of the total area of habitat. A combination of standard methods and research-oriented treatments would be employed, including manual removal, mowing, use of gas powered weed cutters, propane torches, hand spraying herbicide or vinegar, livestock grazing, and prescribed burning (both in and out of season) to contain, reduce, or remove infestations of non-native plant species.
- **Erosion control for habitat restoration and enhancement.** While wind, sheet, rill, and gully erosion are natural processes in the maritime chaparral landscape, accelerated erosion is normally associated with road construction and maintenance (or lack of maintenance) and former military training. Erosion control activities would focus on reducing the source of erosion such as concentrated runoff, point discharges, gullies, and other drainage problems; especially those associated with impervious surfaces, disturbed landforms, roads, and trails. Restoration of eroded or otherwise disturbed areas should recreate characteristics similar to natural functioning undisturbed parts of the nearby landscape.
- **Monitoring.** Status and trends monitoring, as well as effectiveness monitoring, is required by the HCP (Chapter 6 of the Draft HCP). Monitoring required by the Draft HCP could result in trampling of HCP species or temporary habitat degradation, but these are expected to be infrequent impacts because of the limited number of events and awareness of the personnel assigned to conduct the monitoring.

Within the FODSP, State Parks, U.S. Army, and the DTSC have signed agreements on future lead cleanup activities on property owned by State Parks shown on as “remediation zones” (Figures 3-6b in the Draft HCP).⁸ Future surface lead removal may be required on State Parks’ property within this NRMZ and is included as an HCP covered activity. Surface lead removal would occur while State Parks is implementing any of the HCP required activities that may result in take as described above. In areas where HCP species could be present on FODSP, to the extent feasible, measures would be taken to limit the effect on HCP species. When accumulations of lead bullets are found at the surface of the soil, these bullets would be collected by hand and/or with rakes or similar tools to sift them from the sand. The sifted sand would be left on site, and the bullets would be placed in buckets and transported offsite for recycling or disposal. Bullet collection would not take place within western snowy plover breeding habitat during the western snowy plover breeding season. To avoid/minimize disturbance of Monterey spineflower and sand gilia, bullet collection would not take place under/among these species during their live growth period. To avoid/minimize disturbance to Smith’s blue butterfly, bullet collection around buckwheat plants would be conducted carefully to avoid disturbance of buckwheat plants. If duff around/under buckwheat plants is disturbed during bullet collection, it would be deliberately placed back around/under the buckwheat plants. If HCP species are present, then remediation sites would be limited to less than 0.5 acres in size. DTSC’s surface lead removal guidelines are included as Appendix Q of the Draft HCP. These activities would result in temporary disturbance and would be restored.

⁸ Note that MEC cleanup involves munitions and explosives of concern and is being conducted by the Army. MEC cleanup activities are covered under separate authorizations between USFWS, Army, and FORA and are not included as covered activities in the HCP. However, lead cleanup on FODSP may be required during implementation of HCP required activities, and, therefore, lead cleanup is included as a covered activity in the HCP.

2.3.4.5. Conservation Strategy

The conservation strategy provides for the establishment, enhancement, and long-term management of habitats that support HCP species to protect and enhance populations of these species and ensure their long-term viability. Specifically, the conservation strategy will accomplish the following objectives:

- Ensure covered activities will avoid or minimize impacts on HCP species and natural communities to the maximum extent practicable.
- Preserve HCP species' populations and habitats.
- Restore, enhance, and maintain species' habitat and natural communities to mitigate for direct and indirect impacts on particular species and vegetation communities.
- Restore, enhance, and maintain HCP species habitat.
- Manage preserved HMAs, including appropriate natural processes, to maximize the functions of habitats for HCP species.

Avoidance and Minimization Measures

Substantial AMMs were built into the redevelopment of the Plan Area through the HMP process. The parcels dedicated for conservation (i.e., HMAs) and parcels dedicated for development (as identified by the Army) were selected based on the distribution and abundance of HCP species, and the size, shape, and location of parcels to maximize conservation value for the HCP species. Accordingly, the HMAs are areas that have high densities of HCP species, are of large size, have minimal edge-to-area ratio, and are adjacent to existing preserved areas or other HMAs. Through the HMP planning process, covered activities already avoid many impacts by being located in areas with lower HCP species density and lower habitat value.

The AMMs developed for the Draft HCP serve to augment those measures adopted in the HMP in order to meet ESA Section 10 and CESA section 2081 purposes. The AMMs developed for the Draft HCP would apply to qualifying covered activities occurring in designated development areas, Borderlands, and HMAs (please refer to Chapter 5, *Conservation Strategy*, of the Draft HCP). These measures would be applied as conditions on covered activities in non-Federal designated development areas, Borderlands, or HMAs to ensure that impacts on covered species and their habitats are avoided and minimized to the maximum extent practicable during HCP implementation.

Mitigation Measures

HCP required mitigation measures were developed to offset any impacts resulting from implementation of the covered activities. Mitigation measures would be applied at the landscape-level, habitat (or natural community) level, and the species-level in the HMAs (please refer to *Table ES-2* of the Draft HCP). Landscape-level mitigation measures would be applied over the entire Plan Area and relate to establishment, planning, design, and management of designated HMAs. Landscape-level mitigation measures address ultimate disposition (ownership and management responsibilities) of the land and the management activities and commitments necessary to maintain a well-functioning habitat reserve and corridor system. Habitat-level and species-level mitigation measures are directly linked to HCP biological goals and objectives. Habitat-level mitigation measures apply to each natural community within the habitat reserve system. These habitat-level mitigation measures were determined by the habitat needs of HCP species and by actions required to conserve and manage natural communities. Mitigation measures at this level would conserve most HCP species through conservation and management of their habitats. However, some species-level mitigation measures would provide additional conservation tailored to a particular HCP species at the individual- or population-level. These species-specific mitigation measures would augment the landscape-level and habitat-level mitigation measures. Habitat-level and species-level mitigation measures include requirements for habitat revegetation, restoration, and enhancement, prescribed burning and alternative vegetative management, non-native invasive species control, erosion control for habitat restoration and enhancement, and evaluation of alternatives to burning (please refer to Chapter 5, *Conservation Strategy*, of the Draft HCP).

2.3.4.6. Monitoring and Adaptive Management

Monitoring and adaptive management are essential components of an HCP. They provide information on implementation of required AMMs, the effectiveness of these actions, as well as provide a foundation to make adjustments to these measures

as needed. As such, the purpose of the monitoring and adaptive management program for the Draft HCP is to ensure that the conservation strategy is achieving the biological goals and objectives for HCP species and their habitats. Monitoring implementation of the Draft HCP would include two components: *compliance monitoring* and *effectiveness monitoring*. Information obtained from these monitoring actions can be used to adjust AMM and mitigation measure implementation, as appropriate, based on specific HCP management decisions to ensure the success of this HCP's adaptive management.

Compliance monitoring tracks the status of HCP implementation, ensuring that HCP required actions are executed and permit compliance is maintained. A cornerstone of the Draft HCP's compliance monitoring program is the evaluation of land use status to ensure compliance with the stay-ahead provision and to track the cumulative take of covered species. This monitoring effort provides a systematic means of measuring progress on base reuse against the assumptions and requirements of the HCP. Covered activities in designated development areas, especially in Borderlands, would be tracked through this type of monitoring. The Cooperative, in coordination with the Permittees and BLM, would coordinate and perform compliance monitoring. Compliance monitoring, for areas including the Borderlands, would allow the Cooperative to assure USFWS and CDFW that impacts from development activities on HCP species and habitats are sufficiently offset by the amount of land preserved and managed for those species and habitats.

Effectiveness monitoring measures the biological response to implementation of the HCP required AMMs and mitigation measures. Information obtained from this monitoring uses metrics that can be directly compared and contrasted to the biological goals and objectives of the HCP. This type of monitoring includes *status and trends monitoring* and *effects monitoring*. It is focused on HCP species and natural communities. It would quantify resources and threats in the Plan Area through time. Additionally, monitoring results would be used to evaluate the success of specific projects initiated as part of HCP required AMMs and mitigation measures, such as controlled burns, non-native plant control treatments, and trail closures. These efforts would commence with *baseline studies* that identify, characterize, and map HCP species and natural communities within HMAs.

Information obtained from compliance and effectiveness monitoring would be used, as appropriate, to adjust AMM and mitigation measure implementation using an adaptive management approach. Critical decisions affecting management of the HCP are expected to occur when monitoring results indicate that previously employed management measures do not produce desired results, that circumstances have changed, or that biological conditions are different from those originally estimated for the HCP. As such, evaluation of monitoring results against compliance and biological thresholds for the HCP species would be reviewed annually through the Technical Advisory Committee (TAC). Adjustments to implementation of the HCP required actions would be made as appropriate. For more details on monitoring and adaptive management, see Chapter 6, *Monitoring and Adaptive Management*, of the Draft HCP.

2.3.5. Alternative 3: Reduced Take Alternative

The Proposed Action (Alternative 2) includes a bounded, defined amount of development within the designated development areas and HMAs, as described in Section 2.3.4, *Alternative 2: Proposed Action*. Alternative 3 would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would occur as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action* and the covered activities listed below). Listed below are the covered activities for which incidental take authorization from the USFWS and CDFW would be sought under this alternative:

- Development, including construction associated with development, in designated development areas;
- Operation and management activities within HMAs, including:
 - Operation, maintenance, and management activities associated with roads, trails, and fuelbreaks;
 - Recreational and educational use; and
 - Beach management.
- HCP required action that may result in take, including:

- Revegetation, restoration, and enhancement;
- Prescribed burning and alternative vegetative management;
- Non-native invasive species control;
- Erosion control for habitat restoration and enhancement; and
- Monitoring.

Therefore, direct impacts would be limited to HCP species that have habitat within the designated development parcels, and those impacts expected from HMA management activity implementation within the HMAs. Any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities to be established within the designated development areas. No take of HCP species would be authorized for development activities within the HMAs as proposed under the Proposed Action. **Table 2-13** provides a summary of the land use designations under Alternative 3.

While a reduced development scenario would still meet most of the Proposed Action's purpose and objectives, less development in the HMAs may reduce the funding to implement the mitigation measures identified in the Draft HCP. Under Alternative 3, Permittees may seek separate project-level ITPs for development in HMAs, including future road corridors and infrastructure projects and allowable development as defined in the HMP. This would affect the Cooperative's ability to predict funding availability for mitigation measure implementation and endowment establishment. As such, the funding assurances required for HCP permit issuance would be compromised. Furthermore, excluding development in the HMAs in the Draft HCP would not allow the Permittees to address a more comprehensive suite of potential future impacts and plan accordingly for appropriate avoidance and mitigation measures.

The base-wide ITPs under this alternative would provide take coverage for the identified activities on non-Federal lands only. Any activities that may result on take on Federal lands (i.e., BLM or Army) would be addressed through Section 7 consultation. BLM would not receive take authorization for any activities described herein or in the Draft HCP and is not currently requesting consultation under the ESA's Section 7. The description of the BLM activities is generally consistent with those actions approved by BLM through its RMP, Activity-Level Plans, and individual implementation plans referred to in Section 1.3.2, *Role of the Bureau of Land Management*. These activities are not considered "covered activities" as defined in Section 1.5, *Covered Activities*, of the Draft Fort Ord HCP as BLM is not a permittee, and are included to provide a comprehensive description of activities within the Plan Area.

Table 2-13. Summary of Land Use Designations Under Alternative 3: Reduced Take Alternative

Land Use Designation	Acres	Miles
Designated Development Areas		
Currently Disturbed Areas (Developed Lands) to be Developed	4,241	
Natural Lands to be Developed	5,051	
Subtotal	9,292	
Borderlands		
Category 1		14.9
Category 2		14.3
Category 3		2.3
Category 4		27.7
Subtotal		59.2
Habitat Management Areas		
Allowable Development	0	
Road Corridors and Infrastructure ¹	0	
Habitat Management	18,540	
Subtotal	18,540	
Total	27,832	59.2

¹Would not include Inter-Garrison Road Widening, MCWD, Fort Ord Recreational Trail and Greenway, and City of Marina Airport Master Plan Expansion Impacts.

2.3.6. Alternatives Eliminated from Further Consideration

Several other alternatives were considered; however, during the evaluation of these alternatives, it was determined that they did not meet the purpose and need or goals and objectives identified in Chapter 1, Section 1.6 of this EIS/EIR and were not reasonable in the context of the criteria identified in Section 2.3.1. The following section represents a brief description of the alternatives considered but eliminated from further consideration.

2.3.6.1. Reduced Habitat Management in HMAs

Prescribed burns and alternative vegetative treatments are required under the Draft Fort Ord HCP for habitat management. Under the Proposed Action, prescribed burning activities are covered activities within all HMAs. To date, only BLM has committed to conducting prescribed burns. The MMs in the conservation strategy require prescribed burns in BLM's FONM and East Garrison South, prior to the development of the second phase of the East Garrison Development so adjacent land uses would not be at risk. Alternative vegetative treatments are proposed within the other HMAs identified above where it is considered too hazardous to burn due to adjacent land uses.

The HMP states that controlled burning may be used as a habitat management activity within some habitat reserve areas; however, it does not provide specific requirements, except for the use of controlled burns within the FONM. The HMP states that BLM will control burn approximately 500 acres per year on a rotational basis (about a 12- to 15-year rotation) and will determine the specific seasonal timing, patch size, yearly total, and rotational time for maritime chaparral burns. As a result, BLM provided a prescribed burn program to the Permittees and Wildlife Agencies for inclusion in the Draft HCP. Under the No Action Alternative, it is anticipated that BLM would implement prescribed burns within the FONM consistent with this program and with BLM's requirements in the RMP, step-down plans, the ACEC designation, national monument designation, the HMP and HMP MOU, and the LOT. The ROD for the RMP states that BLM will coordinate with the MBARD to predict impacts on air quality from prescribed burns and develop criteria for prescribed burns with MBARD to avoid air quality degradation beyond established air quality standards. Prescribed burns may also be used in other habitat reserves under the HMP; however, specific burn programs have not been completed and details are unknown.

The habitat management actions under the HMP must be implemented as required under existing land transfer agreements, and for BLM, the HCP MOU. As a result, prescribed burns would be required under the Proposed Action Alternative and No Action Alternative and would be very similar; therefore, the analysis would be redundant.

2.3.6.2. Reduced Development Alternative

An alternative was considered that focused on limiting development activities to redevelopment of existing developed areas within the designated development areas and HMAs, and included implementation of required HMP habitat management in HMAs. This alternative would result in a decrease in the extent of HCP covered activities implementation, as it assumes no take would occur in existing developed areas within the designated development areas and HMAs associated with redevelopment activities, and very little take in HMAs as a result of HMA management activities and conservation strategy implementation. Therefore, impacts to HCP species would be limited to HMA management activities and conservation strategy implementation. This includes direct impacts from road and trail maintenance, fuelbreak establishment and maintenance, recreational and educational use, and beach management, as well as indirect impacts from prescribed burns and alternative vegetative management. Therefore, the jurisdictions with habitat management and Borderland requirements (excluding BLM) would need to obtain individual ITPs if take of listed species would occur as a result of these activities.

Direct impacts to HCP species would be reduced; however, the extent of mitigation measure implementation and funding would also be reduced. The HMP requires preservation of the Plan Area, codifying the deed restrictions and MOAs in place as a result of Army obligations under the HMP. These agreements provide the basic mechanism for implementing parcel-specific habitat protection measures specified by the HMP, while MM-1 of the Draft HCP (adopt implementing ordinance or policy) ensures the HCP is implemented at the local, agency, or institutional level. However, since the HCP would not provide take coverage for development of natural lands within development parcels, the amount of Community Facilities District (CFD) revenues to fund HCP implementation would be reduced. Mitigation measure scope and frequency would be reduced to take into account reduced impacts and available funding.

This alternative is not considered feasible or reasonable since it is highly unlikely development activities could be limited to only existing developed or disturbed areas within the designated development areas and HMAs, where take would not occur. Projects may be proposed in areas designated for development in the HMP, in the future, and may apply for ITPs if needed. While the extent and number of individual ITPs the USFWS and/or CDFW would approve is unknown, it is not reasonable to assume that none would be issued. In addition, BLM and other Federal landowners (including the Army, especially for action not already covered by existing BOs) would continue to be required to consult under Section 7 of the ESA with USFWS for any actions that could affect listed wildlife or plants.

Without coordinated, base-wide ITPs from USFWS and CDFW, each non-Federal recipient of land would likely be required to negotiate separately with these agencies for ITPs for development within natural lands. Measures to protect the HCP species would likely be tied to project-by-project evaluation through the local land use jurisdictions with oversight by the USFWS and CDFW. Depending on how the permit requirements were structured, the requirements could draw upon the proposed HCP conservation strategy; however, this would affect the Cooperative's ability to predict funding availability for mitigation measure implementation and endowment establishment. As such, the funding assurances for HCP permit issuance would be compromised. In addition, the coordinated and comprehensive nature of the plan for habitat management on the former Fort Ord would be compromised by this project-by-project approach.

The parties affected by the closure, disposal, and reuse of the former Fort Ord have been proactive in developing a coordinated regulatory compliance program that maximizes the opportunities offered by this HCP. Base-wide authorization under both Federal and State statutes in conformance with the HCP would avoid the inefficiencies and delays typical of the project-by-project approach and establish mechanisms for assuring coordinated resource management. The process of issuing individual authorizations would be cumbersome and time-consuming, and a valuable element of cooperation between development and habitat preservation interests could be lost. This alternative would be contrary to the spirit of the HMP, as well as the HCP, and could limit benefits to both reuse and habitat management that would result from a more comprehensive approach.

Although this alternative reduces take and other environmental impacts (e.g., other biological resources, cultural, air quality, noise, etc.), it also reduces the extent of covered activities. Base-wide ITPs would not be issued for development activities as planned in the Reuse Plan and local general plans. As a result, this alternative would not meet most of the goals and objectives of the Proposed Action, including:

- Enable the Permittees to reasonably and efficiently implement their respective general, specific, and master plans, which collectively represent the foreseeable development on the former Fort Ord pursuant to the adopted Reuse Plan, as modified.
- Provide streamlined permitting process resulting in improved conservation.
- Provide a comprehensive means to coordinate and standardize mitigation and compensation requirements of ESA, CESA, CEQA, NEPA, and other applicable laws and regulations relating to biological and natural resources within the Plan Area so that public and private actions will be governed equally and consistently, thereby reducing delays, expenses, and regulatory duplication.

This alternative is not considered feasible or reasonable and does not meet most of the goals and objectives of the Proposed Action, and, therefore, was not carried forward for further analysis in this Draft EIS/EIR.

2.3.6.3. Expanded List of Covered Species

The addition of other special-status species was considered early in the HCP process. The Draft Fort Ord HCP currently proposes the coverage of eight species. The Draft Fort Ord HCP was developed based on the species addressed in the HMP, which were chosen based on the following:

- their legal protection under ESA and CESA;
- their listing status;
- the relative importance of existing populations and habitats on the former Fort Ord to the continued survival of the species; and
- if they were CNPS-listed species with more than 10% of their known range on former Fort Ord.

Additional species that were considered early in the Draft HCP process included:

- American badger (*Taxidea taxus*),
- Contra Costa goldfields (*Lasthenia conjugens*),
- Robust spineflower (*Chorizanthe robusta* var. *robusta*),
- Coast wallflower (*Erysimum ammophilum*),
- Toro manzanita (*Arctostaphylos montereyensis*),
- Sandmat manzanita (*Arctostaphylos pumila*),
- Monterey ceanothus (*Ceanothus rigidus*),
- Eastwood’s Ericameria (*Ericameria fasciculata*),
- Hooker’s manzanita (*Arctostaphylos hookeri* ssp. *hookeri*),
- Monterey ornate shrew (*Sorex ornatus salarius*),
- Northern California legless lizard (*Anniella pulchra*),
- California linderiella (*Linderiella occidentalis*),
- Bank swallow (*Riparia riparia*),⁹
- Monterey dusky-footed woodrat (*Neotoma macrotis luciana*),
- Western pond turtle (*Emys marmorata*),
- Western burrowing owl (*Athene cunicularia*),
- Coast horned lizard (*Phrynosoma blainvillii*),
- Congdon’s tarplant (*Centromadia parryi* ssp. *congdonii*), and
- Hickman’s onion (*Allium hickmanii*).

This alternative was considered not to be feasible since additional funding to address these species in the Draft HCP has not been secured. Further, the addition of these species would not significantly alter the proposed conservation strategy in the Draft HCP. The proposed conservation measures currently protect and enhance these species by protecting their habitat. In addition, including these species would not result in a reduction of any environmental impacts associated with implementation of the Draft HCP. If these species were listed in the future, the Draft HCP can be amended to include species-specific conservation measures. However, these conservation measures would not significantly change the conservation strategy since their habitat is already being protected and enhanced by the Draft HCP. This alternative was eliminated from further analysis based on it not substantially altering the project description or project impacts.

2.3.6.4. ESA-Listed Species Only

Under this alternative, only those species that are Federally listed as threatened or endangered would be covered under the Draft HCP; these species include the following:¹⁰

- | | |
|---|--|
| <ul style="list-style-type: none"> ▪ Smith’s blue butterfly, ▪ Western snowy plover, ▪ California tiger salamander, ▪ California red-legged frog ▪ Monterey spineflower, | <ul style="list-style-type: none"> ▪ Robust spineflower, ▪ Yadon’s piperia, ▪ Contra Costa goldfields, and ▪ Sand gilia. |
|---|--|

⁹ Note that consistent with the Draft HCP, no take of bank swallows would occur and impacts to this species would be avoided.

¹⁰ Robust spineflower is not included as a covered species in the Draft HCP since its historic population on FODSP has not been re-discovered and the location of the historic population would not be impacted by any proposed covered activities. Contra Costa goldfields are also not included as covered species in the Draft HCP since populations are only located on BLM land and would not be impacted. Any activities that may result on take on Federal lands (i.e., BLM) would be addressed through Section 7 consultation.

Other sensitive species, including State-listed species, would not be covered and impacts, including take under CESA, would be addressed on a project-by-project basis as described under the No Action alternative. No assurances would be provided by the USFWS that the Draft HCP conservation strategy adequately conserved non-listed species that may be listed during the 50-year permit term. This alternative would not meet the purpose and need and goals and objectives of the Proposed Action to: 1) protect, conserve, and enhance HCP species and their habitat while enabling the Permittees to implement their respective planning goals. As a result, this alternative was eliminated from further evaluation in the EIS/EIR.

2.3.6.5. Activities Not Covered in the Fort Ord HCP

The following activities were included in the HMP analysis. However, these activities are not part of the Proposed Action and are excluded from the project description and permit coverage. This is not an exhaustive list. These specific projects are identified because they are addressed in the HMP or the Base Reuse Plan. The organizations involved with the activities described below, such as PG&E, have and will follow separate ESA and CESA compliance processes for their actions.

Highway 1 Corridor and Transportation Easement-State Route 68 Corridor

The Highway 1 corridor is the principal State highway route paralleling Monterey Bay along the westerly edge of the Plan Area. It has been maintained as a Caltrans ROW through the base during the Army's tenure, but title to most sections of the route has now been transferred directly to Caltrans. The highway would continue to be used for transportation purposes and may be used for expansion or improvements of transportation systems.

Caltrans has an 847-acre study corridor for the proposed Caltrans State Route 68 Corridor, which is described in the 1997 HMP as a foreseeable development (**Figure 2-1**). The portion of this study corridor that could be developed in the former Fort Ord outside of the FONM is a nearly 200-acre area. Sections of the Laguna Seca Recreational Expansion area are included in the study corridor (98 acres of Lookout Ridge and 37 acres of Wolf Hill). Any work proposed by Caltrans on this study corridor is not a covered activity and is not authorized as part of the HCP nor are potential environmental impacts addressed in this EIS/EIR. However, the study corridor includes a 647-acre swath through the FONM and Army lands, and rights have not been granted to Caltrans for such purposes by the Army or BLM. Development of a highway realignment in the FONM would require a consistency determination by the BLM (in relation to how it would affect the FONM) and additional mitigation.

Under BLM Manual 6220-National Monuments, National Conservation Areas, and Similar Designations (Public), it is the BLM's policy "to the greatest extent possible, subject to applicable law, that BLM should through land use planning and project-level processes and decisions, avoid granting new ROWs in Monument and National Conservation Areas and similar designations" (U.S. Department of Interior – BLM, 2012). BLM intends to manage public land resources in the FONM consistent with the conservation of biological resources. A Natural Resources Management Plan will be developed and implemented for the area by BLM (Section 5.5.2, *Development of Resource Management Plans for specific HMAs and Base-Wide Management Strategies*). Due to BLM's strict policies, it is unlikely that this unfunded development will occur.

Pacific Gas and Electric Company Operations

PG&E will continue to operate and maintain all gas and electric transmission and delivery in the Plan Area through easements granted by the Army. In order to meet the needs of customers and to satisfy the California Public Utilities Commission's (CPUC's) requirements to offer "adequate, efficient, just, and reasonable" service, PG&E must construct, operate, and maintain safe and efficient gas and electric service. However, PG&E facility operation and maintenance will not be covered under the Draft Fort Ord HCP. PG&E is seeking separate ESA Section 10 coverage under the PG&E Operations and Maintenance Multi-Region Conservation Habitat Plan.

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CHAPTER 3. AFFECTED ENVIRONMENT

3.1. INTRODUCTION

This chapter presents information on the current condition of the resources that may be affected by the implementation of the Proposed Action and alternatives. This section relies on existing information primarily from the following documents, which describe the resources of the former Fort Ord, jurisdictions located therein, and planned development activities:

- Fort Ord Disposal and Reuse Final Environmental Impact Statement (USACE, 1993) and Fort Ord Disposal and Reuse Final Supplemental Environmental Impact Statement (USACE, 1996) (Army's FEIS and FSEIS);
- Reuse Plan (EMC and EDAW, 1997);
- City of Marina General Plan (City of Marina, 2006) and EIR (Lamphier & Associates, 2000);
- City of Seaside General Plan (City of Seaside, 2003) and EIR (City of Seaside and Cotton/Bridges/Associates, 2004);
- City of Del Rey Oaks General Plan (DD&A, 1997a) and EIR (DD&A, 1997b);
- County of Monterey General Plan (County of Monterey, 2010) and EIR (ICF, 2010); and
- FODSP Final General Plan and EIR (State Parks, 2004).

NEPA Regulations and CEQA Guidelines both require the description of existing environmental conditions be no longer than is necessary to understand and describe the effects of the proposed action/proposed project and alternatives. This Draft EIS/EIR may summarize relevant information and analysis from previous environmental documents where appropriate. If readers would like additional details of a particular resource or analysis, they are referred directly to these documents. These documents are available for public review at the FORA offices located at 920 2nd Avenue, Suite A, Marina, CA 93933. Additional data sources to support specific resource discussions are cited in the text. The biological resources section of the EIS/EIR also relies on natural resource data that were gathered for the proposed Draft HCP.

3.1.1. Regional Environmental Setting

Fort Ord is a former Army installation located along the Pacific Ocean in the northern part of the County of Monterey in central California. The former Fort Ord occupies approximately 28,000 acres adjacent to Monterey Bay, a national marine sanctuary. Approximately 72% of the former base lies within unincorporated portions of the County of Monterey, with about 15% within the City of Seaside, 12% within the City of Marina, 1% within the City of Del Rey Oaks, and less than 0.5% within the City of Monterey. Sand City shares a portion of its boundaries with the Plan Area. The former Fort Ord has a generally mild climate because of the Pacific Ocean's effect on the coastal area. Temperatures near the coast are uniform throughout the year, with an average annual temperature of 55°F. Precipitation amounts vary greatly as a result of the maritime influence and terrain. The average annual precipitation is 14.2 inches and is concentrated from November through April. The maritime influence also results in foggy weather during the summer. The topography of the former Fort Ord is dome-like; the center of the installation has the greatest elevation, while the boundaries are low-lying areas. The most notable topographical features are the coastal dunes and the steep slopes in the eastern portion of the installation, both of which have high erosion potential.

3.1.2. Baseline Conditions

The environmental baseline represents the physical conditions or environmental setting by which an action's physical impacts are evaluated. Clearly identifying the environmental baseline is an important component of the CEQA/NEPA process and ensures that the potential effects of an action are evaluated against the same environmental conditions. While the general purpose and intent of establishing a baseline are similar under NEPA and CEQA, the State CEQA Guidelines contain specific requirements related to the identification of the appropriate baseline. NEPA, on the other hand, does not contain the same procedural requirements. In addition, the courts have also played an important role in defining the appropriateness of baseline conditions under CEQA. This section provides a brief discussion of applicable CEQA and NEPA requirements related to baseline conditions, as well as applicable court decisions pertaining therein.

3.1.2.1. CEQA

CEQA Guidelines §15125(a) require that an EIR include a description of “the physical environmental conditions in the vicinity of a project, as they exist at the time... environmental analysis is commenced...” These environmental conditions would normally constitute the baseline physical conditions by which the CEQA lead agency determines whether an impact is significant. While the environmental baseline is normally the physical conditions at the time the NOP is published, the CEQA Guidelines and recent court decisions (see for instance *Cherry Valley Pass Acres and Neighbors v. City of Beaumont*; see also *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310) recognize that an alternate baseline may be appropriate.

In general, the appropriate CEQA baseline is the existing environmental conditions at the time the NOP was published or the time the environmental analysis was commenced. In determining the appropriate environmental baseline for evaluating potential air quality impacts, the California Court of Appeal, found in *Communities for a Better Environment v. South Coast Air Quality Management District, et al.*, 48 Cal. App. 4th 310 (2010), that the appropriate CEQA baseline consisted of the physical environmental conditions existing at the time of analysis. The decision stated that a long line of Court of Appeal decisions holds that the impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis and these decisions concluded that the baseline for CEQA analysis must be the “existing physical conditions in the affected area,” that is, the “real conditions on the ground.”

The NOP for the Proposed Action was published on June 20, 2005. Under normal conditions, this date would represent the environmental baseline condition for the purposes of CEQA. As described above, the courts have held that an alternate baseline may be appropriate, particularly in instances where there are several years between the time of NOP issuance and EIR preparation. Significant time has elapsed since the time the NOP was issued and the preparation of this EIS/EIR commenced, which began in 2011. In addition, many revisions have been made to the Draft HCP since 2011. Therefore, for the purposes of this EIR/EIS, the CEQA environmental baseline condition is considered the time at which point the preparation of the revised administrative draft of the EIS/EIR commenced, which was January 2017. This is considered a more realistic environmental baseline which recognizes changes in the physical conditions on the former Fort Ord since the initial NOP issuance, as well as accounts for the availability of the Draft HCP in August 2017, completion of the Draft HCP take assessment in June 2017, changes in the regulatory framework that have occurred since 2011, and updates to the local planning and development conditions. The use of an alternate baseline is appropriate in light of the significant time and changes in environmental conditions since the issuance of the NOP. The physical environment has changed considerably since 2005. An evaluation of the Proposed Action with the current physical conditions of the environment, as opposed to past conditions, would permit a more realistic evaluation of impacts and their potential significance. For these reasons, the CEQA baseline is the physical environmental conditions as they exist at the time this Draft EIS/EIR was prepared, as opposed to the date of issuance of the NOP.

3.1.2.2. NEPA

NEPA, unlike CEQA, does not have a standard rule that states when to define the baseline conditions or determine the boundaries of the affected environment. However, NEPA does require establishment of a baseline against which to compare the impacts of the proposed action. Like CEQA, the NEPA environmental baseline is usually defined as the pre-project or existing environmental conditions. The significance of impacts is determined by comparing the impacts of the Proposed Action and alternatives to the baseline condition. The Ninth Circuit Court of Appeals considered the baseline issue in *American Rivers v. Federal Energy Regulatory Commission*, 187 F.3d 1007 (9th Cir., 1999). The court held that the appropriate baseline is the existing environmental conditions rather than a “theoretical reconstruction” of what the conditions would have been like if past projects had not occurred.

Under NEPA, the baseline conditions can be, but are not necessarily the same as, the no action alternative. As a result, the baseline and no action alternative are often confused. The purpose of the no action analysis is to compare alternatives, not establish a baseline. The definition of the no action alternative will vary depending on the nature of the proposed project. For some projects, the existing environmental conditions will not change if the project is not approved, and the no action alternative and baseline will be the same. For other projects, rejection of the project will not preserve existing environmental conditions, and the no action alternative will be different from the baseline. Under NEPA, the analysis of the effects of the no action alternative may be documented by contrasting the existing conditions and expected future

conditions if the proposed action is not approved with the impacts of the proposed action and alternatives (40 CFR 1502.14[d], CFR 43.415[b][1]). The no action alternative represents conditions that would result if the agency continued existing policy or did not implement the proposed Federal action, and, unlike CEQA, serves as a baseline against which the effects of implementing the proposed action and other alternatives are measured.

Typically, NEPA lead agencies will use the date of the issuance of the NOI as the date to define the existing conditions. The NOI for the Proposed Action was published on September 29, 2004. Significant time has elapsed since the NOI was published. In order to account for changes in environmental conditions since NOI publication and for the reasons identified above in the CEQA baseline discussion, this EIS/EIR uses the existing physical conditions at the time of this Draft EIS/EIR preparation along with expected future conditions if the Proposed Action is not approved as the NEPA environmental baseline as opposed to the date of issuance of the NOI. The preparation of this Draft EIS/EIR commenced in January 2017.

3.1.3. Resource Areas Not Considered in Detail in this EIR/EIS

A preliminary analysis of the key environmental issues was conducted for this EIS/EIR to assess the potential for environmental resources to be significantly affected by the Proposed Action and alternatives. The environmental resources considered were based on the USFWS NEPA Handbook, Appendix G of the CEQA Guidelines, Volume 4 of the Reuse Plan, the Army's FEIS and FSEIS, public comments received during the scoping periods, and professional judgment. Based on the preliminary analysis, it was determined that agricultural resources and mineral resources will not be significantly affected by the Proposed Action or alternatives. Therefore, to help narrow the scope of this EIS/EIR and focus the analysis on the issues that are potentially significant, these environmental resources are not considered in detail in this EIS/EIR (40 CFR 1501.1, 40 CFR 1501.1(d), 40 CFR 1501.7(a)(3), and CEQA Guidelines Section 16063(c)(3)). The reasons for elimination are discussed below in accordance with NEPA Regulations (40 CFR 1508.0) and CEQA Guidelines (Section 15128).

3.1.3.1. Agricultural Resources

The Proposed Action or alternatives would not have an effect on agricultural resources because former Fort Ord lands do not contain significant agricultural resources. There are no designated prime or important farmlands, or parcels with Williamson Act contracts on former Fort Ord lands. The BLM allows sheep grazing within the grasslands of the FONM in accordance with the lease requirements. The Proposed Action and alternatives do not prohibit sheep grazing, and, therefore, impacts to grazing activities will not occur.

3.1.3.2. Mineral Resources

The Proposed Action or alternatives would not have an effect on mineral resources because former Fort Ord lands do not contain significant mineral resources which would potentially be used for extraction. Additionally, the covered activities are not expected to substantially alter landforms containing mineral resources. Therefore, effects on mineral resources are not analyzed further in this EIS/EIR.

3.1.4. Resource Areas Considered in Detail in this EIS/EIR

Based on the preliminary analysis of potential impacts, the following resources would potentially be significantly affected by the Proposed Action or alternatives:

- Aesthetics,
- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural Resources,
- Energy,
- Geology and Soils,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise,
- Public Services,
- Socio-Economics,
- Transportation and Circulation, and
- Utilities.

These resources will be analyzed in further detail in this EIS/EIR. The affected environment associated with these resources is discussed in this chapter, and potential impacts to these resources are discussed in Chapter 4, *Environmental Consequences*.

3.2. AESTHETICS

3.2.1. Introduction

This section describes the existing visual quality of the former Fort Ord relevant to the Proposed Action and alternatives, including the environmental setting and applicable Federal, State, and local regulatory requirements. This discussion is based, in part, on information provided in the FORA Reuse Plan EIR. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced.

3.2.2. Regional Setting

The former Fort Ord is located in a region of diverse, sensitive, and high-quality visual resources, containing some of the most vivid and important aesthetic images in California: the Monterey Peninsula, with its rocky cliffs and shores, windswept cypress trees, cove beaches, rolling sand dunes, Fisherman's Wharf, Cannery Row, and historic mission; Monterey Bay, with its changing colors, sunsets, sailboats, fishing boats, and migrating whales; the broad pastoral and scenic Salinas Valley, with its agricultural fields, meandering streams and river, and shifting fog; and rugged coastal hills and ranges, with their steep slopes and drainages and diverse patterns of oak woodlands, chaparral, and grasslands.

The former Fort Ord contributes substantially to the region's highly valued visual character and quality. It provides a major area of open space and has a mostly natural appearance and unified development character. Within its regional context, much of former Fort Ord is visually unique because it contains vast areas of natural and diverse vegetative cover, its shoreline appears relatively undisturbed, and it is mostly undeveloped. Except for a few areas near Highway 1 and in the north and northeast portions of the site, the former Fort Ord appears preserved as a largely natural area surrounded by intensively farmed land and urban development.

3.2.3. Concepts and Terminology

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the visual character and quality of the environment, a visual or aesthetic impact may occur. Visual character, visual quality, and visual sensitivity are the terms used throughout the analysis, and are defined below.

3.2.3.1. Visual Character

Visual character is a general description of the visual attributes of a particular land use setting and the unique set of landscape features. The purpose of defining the visual character of an area is to provide the context within which the visual quality of a particular site or locale is most likely to be perceived by the viewing public. For natural and open space settings, visual character is most commonly described in terms of areas with common landscape attributes (such as landform, vegetation, or water features).

3.2.3.2. Visual Quality

Visual quality is defined as the overall visual impression or attractiveness of a site or locale as determined by its aesthetic qualities (such as color, variety, vividness, coherence, uniqueness, harmony, and pattern). Natural and built features combine to form perspectives with varying degrees of visual quality, which are rated in this analysis as low, moderate, and high, as follows:

- **Low.** The location is lacking in natural or cultural visual resource amenities typical of the region. A site with low visual quality will have aesthetic elements that are relatively unappealing and perceptibly uncharacteristic of the surrounding area.

- **Moderate.** The location is typical or characteristic of the region's natural or cultural visual amenities. A site with moderate visual quality maintains the visual character of the surrounding area, with aesthetic elements that do not stand out as either contributing to, or detracting from, the visual character of an area.
- **High.** The location has visual resources that are unique or exemplary of the region's natural or cultural scenic amenities. A site with high visual quality is likely to stand out as particularly appealing and makes a notable positive contribution to the visual character of an area.

3.2.3.3. Visual Sensitivity

Visual sensitivity is the overall measure of a site's susceptibility to adverse visual changes. Visual sensitivity is rated as high, moderate, or low and is determined based on the combined factors of visual quality, viewer types and volumes, and visual exposure to the Proposed Action and alternatives as described above. A setting's overall visual sensitivity is the measure of its susceptibility to significant visual impacts as a result of project-caused visual change.

3.2.4. Site Characteristics

3.2.4.1. Scenic Resources

The California Scenic Highway Program was established by the California Department of Transportation (Caltrans) to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. Two highway corridors in the vicinity of the Proposed Action and alternatives, Highway 1 and Highway 68, are designated as scenic highways by Caltrans:

- **Highway 1.** The segment of Highway 1 located south of the former Fort Ord from Highway 68 to the Carmel River is a Caltrans Officially Designated Scenic Highway. Views from Highway 1 include expansive, highly vivid, and intact views of Monterey Bay, important views of adjacent coastal dunes and shorelines, and views of developed lands mostly east of the highway.
- **Highway 68.** The segment of Highway 68 located adjacent to the former Fort Ord from the City of Monterey to the Salinas River is a Caltrans Officially Designated Scenic Highway. Views from Highway 68 generally consist of low, rolling hills with moderately steep slopes, covered mostly with grazed annual grasslands and interspersed with areas of oak woodland and riparian vegetation.

There are no federally designated wild and scenic rivers in the Proposed Action area (National Wild and Scenic River System, 2019).

3.2.4.2. Visual Character, Quality, and Sensitivity

The existing visual character of the former Fort Ord is comprised of a coastline, distant mountain ranges, undeveloped land, and urban development. Much of the former Fort Ord is undeveloped and characterized by rolling hill topography and eight broad vegetation communities: coastal strand and dune communities, maritime chaparral, coastal scrub, coast live oak woodland and savanna, grassland, riparian, wetland and open water, and marine communities. Surrounding land uses in the vicinity of the former Fort Ord include agriculture and urban development.

The former Fort Ord exhibits relatively high visual quality due to its vividness, intactness, and unity. Vividness of the site, particularly when viewed from the Salinas Valley, the Monterey Bay, and in background of heavily used tourist areas such as Fisherman's Wharf in Monterey, is moderate to high because of its generally undeveloped scenic appearance in contrast with nearby developed urban areas. The site exhibits a generally high level of visual intactness because of its extensive natural vegetation cover and localized areas of development. Although some built elements contrast strongly in form with other elements in the former Fort Ord landscape, the visual unity of the study area is generally high. Constructed elements are generally consistent in architectural style, low in height, and surrounded by considerable continuous cover of mature vegetation that helps blend the elements with their surroundings; these factors combine to produce a high degree of visual coherence.

Much of former Fort Ord is visually sensitive because large portions of it are of high visual quality and are highly visible from surrounding areas and features of importance (e.g., residences, roads, tourist areas, and the bay). The bay and nearby beaches and visitor attractions afford important views of former Fort Ord's visually sensitive beaches, sand dunes, coastal bluffs, and interior hills. The Greater Monterey Peninsula Area Plan designates some areas of the former Fort Ord as visually sensitive or highly sensitive (County of Monterey, 2010). However, the overall visual sensitivity of this site is considered moderate because of the variable conditions of the area, characterized by both natural and developed visual settings.

3.2.5. Regulatory Setting

3.2.5.1. Federal

No Federal regulations relative to scenic or visual resources would be applicable to the Proposed Action or alternatives.

3.2.5.2. State

California Scenic Highway Program

In 1963, the State of California established the Scenic Highway Program to develop a system of State roadways whose adjacent corridors contained scenic resources worthy of protection and enhancement. Sections 260 through 263 of the State Streets and Highways Code establish the Scenic Highways Program and require local government agencies to take the following actions to protect the scenic appearance of the scenic corridor:

- Regulate land use and density of development,
- Provide detailed land and site planning,
- Prohibit off-site outdoor advertising and control on-site outdoor advertising,
- Pay careful attention to and control earthmoving and landscaping, and
- Scrutinize the design and appearance of structures and equipment.

As previously indicated, designated state scenic highways in the project vicinity include Highway 1 between Highway 68 and the Carmel River and Highway 68 between the City of Monterey and the Salinas River.

California Coastal Act

Portions of the Proposed Action area (see below) are in the California Coastal Zone, as defined by the California Coastal Commission (CCC). The California Coastal Act (CCA) requires that local government carry out its goals and policies through the Local Coastal Program (LCP) process. Each local jurisdiction within the Coastal Zone is required to prepare a LCP that contains a land use plan and implementation regulations that implement the provisions of the CCA. Proposed developments located within the coastal zone are required to obtain a Coastal Development Permit from local agencies that have a certified LCP. If a coastal jurisdiction does not have a certified LCP, a coastal permit must be obtained from the CCC. There are no certified LCPs within the Plan Area. The only portion of the Plan Area within the Coastal Zone is the FODSP HMA, which is located within the County. However, future actions within the FODSP will be under the jurisdiction of State Parks and, therefore, State Parks would be the permit applicant for future CDPs, if required, in the absence of a County LCP in the Plan Area. CDPs within the FODSP HMA will require compliance with Coastal Act policies, including but not limited to, scenic and aesthetic issues.

3.2.5.3. Regional and Local

FORA Reuse Plan

The Reuse Plan, which was adopted in June 1997, governs the redevelopment of the former Fort Ord. The Reuse Plan assigns goals, policies, and objectives related to base reuse. The Reuse Plan contains goals and objectives for the

preservation and enhancement of aesthetic resources within the former Fort Ord; these goals and objectives are based on key guiding principles, which include:

- Reinforcing the natural landscape setting consistent with the character of the Peninsula;
- Protecting scenic views and preserving and enhancing visual quality of scenic corridors, including the Highway 1 viewshed; and
- Preserving open space to establish the visual image and character of FORA communities, neighborhoods, and business districts.

Highway 1 Design Corridor Design Guidelines

This document provides a set of design guidelines for the creation of design standards and zoning ordinances by jurisdictions with authority along the three-mile Highway 1 segment within the former Fort Ord military base. The Guidelines serve as the basis for future FORA consistency determination review of legislative, land use, and project approvals submitted by affected jurisdictions, as required by state law. FORA, as obligated by the provisions of the Reuse Plan and the accompanying EIR, prepared the Guidelines.

Regional Urban Design Guidelines

The Regional Urban Design Guidelines (RUDG), adopted by the FORA Board in 2016, were developed for the former Fort Ord as directed by the Reuse Plan. The RUDG establish standards for road design, setbacks, building height, landscaping, signage, and other matters of visual importance. They provide jurisdictions, developers, and the public guidance on matters of visual importance to former Fort Ord reuse. Town & Village Centers, Gateways, Regional Circulation Corridors, Trails, and the Highway 1 Scenic Corridor on the former Fort Ord were identified as regionally important locations requiring RUDG development in the Reuse Plan and refined during the RUDG public design process. FORA jurisdictions must consider these guidelines when submitting proposed land use plans, zoning codes, entitlements, and other implementation actions to FORA. FORA must then determine the consistency of such plans, zoning, and actions with the guidelines (as well as other Reuse Plan requirements), as set forth in the FORA Act and Article 8.01 of the Master Resolution. The RUDG are not zoning plans or zoning ordinances; such are the purview of the local jurisdictions. The guidelines are built from the Reuse Plan, draw on existing policy, and incorporate national urban design best practices.

3.3. AIR QUALITY

3.3.1. Introduction

This section describes the existing baseline air quality information relevant to the Proposed Action and alternatives, including a description of regional topography and climate, applicable Federal, State, and local air quality regulatory requirements, local and regional air quality pollutants, existing conditions and ambient air quality standards, and sensitive receptors. Key sources include: Volume 1 of the Army's FEIS and FSEIS and Volume 4 of the Reuse Plan and its supporting technical appendices; MBARD's *2012-2015 Air Quality Management Plan* (2016 AQMP); MBARD's *2008 CEQA Air Quality Guidelines*; and other relevant documents as referenced.

3.3.2. Regional Setting

The former Fort Ord is located within the North Central Coast Air Basin (NCCAB), one of fourteen (14) statewide basins designated by the California Air Resources Board (CARB). The NCCAB covers an area of 5,159 square miles along the central California coast. The NCCAB is comprised of Monterey, Santa Cruz, and San Benito Counties; please refer to **Figure 3.3-1** for a graphical depiction of the location of the NCCAB. The MBARD is responsible for local control and monitoring of criteria air pollutants throughout the NCCAB.

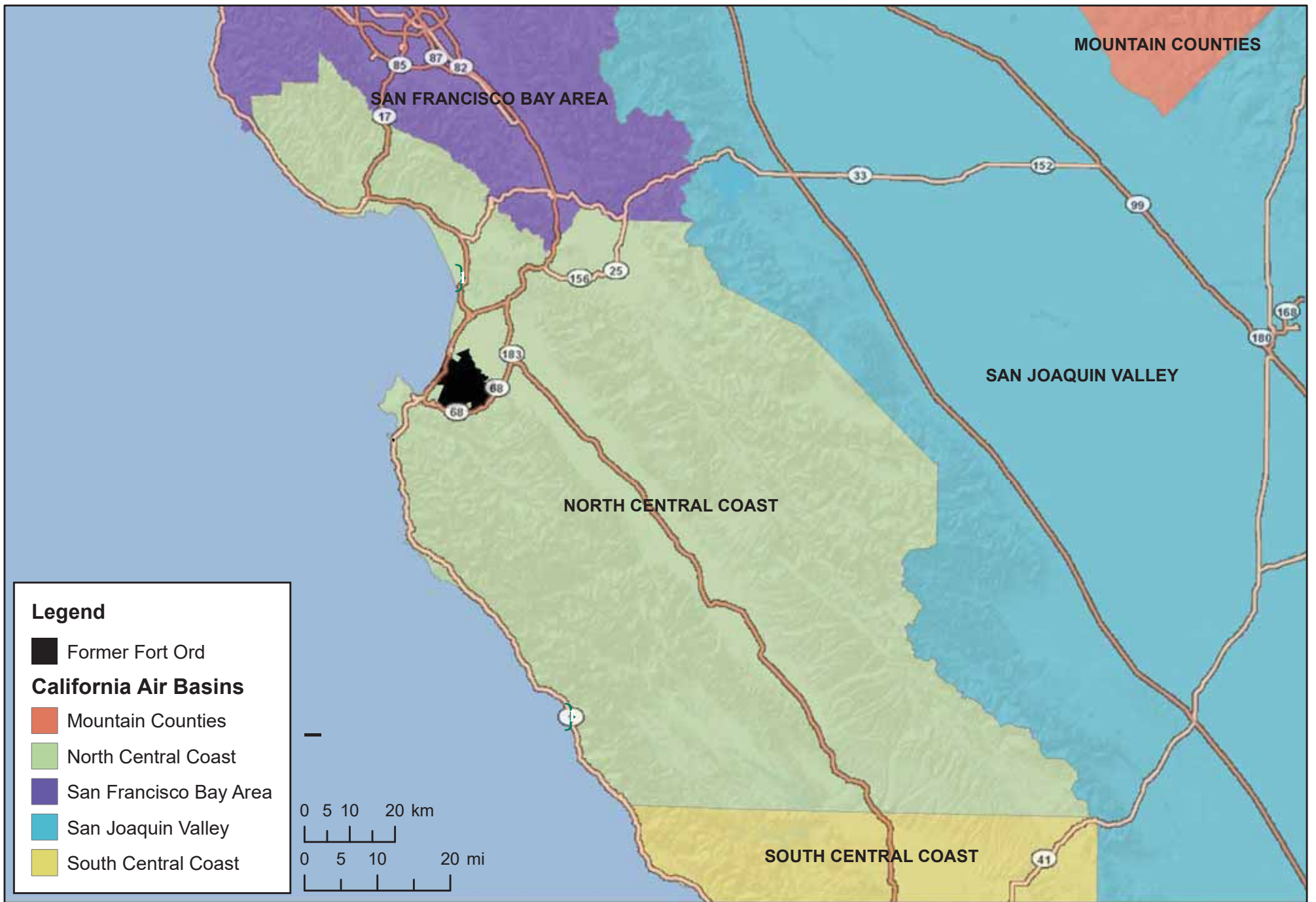
3.3.2.1. Climate and Topography

Climatological conditions, an area's topography, and the quantity and type of pollutants released commonly determine ambient air quality. The northwest sector of the NCCAB is dominated by the Santa Cruz Mountains. The Diablo Range marks the northeastern boundary. The Santa Clara Valley extends into the northeastern tip of the basin. Further south, the Santa Clara Valley becomes the San Benito Valley, which runs northwest-southeast, with the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to south of King City. The coastal Santa Lucia Range defines the western side of the valley.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Communities with cold climates may burn wood or other fuels for residential heating, whereas areas with hot climates may have higher emissions of some pollutants from automobiles. Topography also plays a part, as valleys often trap emissions by limiting lateral dispersal.

A semi-permanent high-pressure cell in the eastern Pacific, the Pacific High, is the controlling factor affecting the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High, forming a stable temperature inversion of hot air over a cool coastal layer. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft acts as a lid to inhibit vertical air movement. The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure that intensifies the onshore air flow during the afternoon and evening. Summer temperatures generally remain between 40 and 70 degrees along the coastal areas, such as the Proposed Action site. In the fall, the surface winds weaken, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay Area or the Central Valley into the NCCAB.

During the winter, the Pacific High migrates southward and has less influence on the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring. Temperatures range between 30 and 65 degrees, generally, along the coast.



Title: **Air Basin Map**

File: Air Basin Map.mxd

Date: 04-12-12

Scale: 1 inch = 17.25 miles

Project: 2444 - FORA HCP

Monterey | San Jose

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Figure
3.3-1

3.3.3. Regulatory Framework

3.3.3.1. Federal

The Clean Air Act (CAA) of 1970, as amended, authorized the establishment of Federal air quality standards and set deadlines for their attainment. The CAA identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and attainment, and incorporates sanctions for the failure to meet interim milestones. The U.S. Environmental Protection Agency (U.S. EPA) is the Federal agency charged with administering CAA and other air quality-related legislation.

National Ambient Air Quality Standards (NAAQS) are established for six “criteria” air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur oxides (SO_x), and lead. The U.S. EPA is responsible for developing rules and regulations to preserve and improve air quality and delegates specific responsibilities to State and local agencies. **Table 3.3-1** contains the Federal air quality standards for each of the criteria air pollutants.

If an area does not meet the NAAQS, Federal clean air planning requirements specify that states develop and adopt State Implementation Plans (SIPs), which are air quality plans showing how air quality standards will be attained. In California, U.S. EPA has delegated authority to prepare SIPs to the CARB, which in turn has delegated that authority to individual air districts. In addition to major pollutants, the U.S. EPA regulates Hazardous Air Pollutants (HAPs). One means by which the U.S. EPA addresses HAP exposure is through the National Emission Standards for Hazardous Air Pollutants (NESHAPS),¹ which include source-specific regulations that limit allowable emissions of such pollutants.

3.3.3.2. State

The CARB, which is part of California Environmental Protection Agency (Cal-EPA) coordinates and oversees both State and Federal air pollution control programs in California. The CARB monitors existing air quality, establishes California Ambient Air Quality Standards (CAAQS), and limits allowable emissions from vehicular sources. California has established its own set of ambient air quality standards (CAAQS) for the seven criteria pollutants with Federal standards. The California Clean Air Act, effective January 1, 1989, provides a planning framework for attaining the State standards. In addition, California has standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.² The standards for the criteria pollutants are presented in **Table 3.3-1**. In nonattainment areas, local air districts are required to prepare plans for attaining State standards. Attainment plans are required to demonstrate a five percent per year reduction in the emissions of nonattainment pollutants or their precursors, unless all feasible measures are being employed. The NCCAB is designated as nonattainment with respect to the State PM₁₀ standard and the State eight-hour ozone standard.

The State also regulates Toxic Air Contaminants (TACs) separately from those pollutants with CAAQS primarily through the Tanner Air Toxics Act (Assembly Bill 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Assembly Bill 2588). The Tanner Act institutes a formal procedure for designating substances as TACs. The procedure includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. The CARB adopts an Airborne Toxics Control Measure for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below the threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions. For source categories under the regulatory jurisdiction of the individual air districts (as previously described), those air districts adopt and enforce the control measure locally.

¹ The NESHAPS are promulgated under Title 40 of the CFR, Parts 61 & 63.

² These standards are designed to protect public health and welfare. The “primary” standards have been established to protect the public health. The “secondary” standards are intended to protect the nation’s welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation, and other aspects of general welfare.

Table 3.3-1. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard ^{a,c}	Federal Standard ^b	
			Primary ^{c,d}	Secondary ^{c,e}
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	--	--
	8-Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)
Carbon Monoxide (CO)	1-Hour	20 ppm (23mg/m ³)	35 ppm (40mg/m ³)	--
	8-Hour	9.0 ppm (10mg/m ³)	9 ppm (10mg/m ³)	--
Nitrogen Dioxide (NO ₂)	1-Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	--
	Annual ^f	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	0.053 ppm (100 µg/m ³)
Sulfur Dioxide (SO ₂)	1-Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	--
	3-Hour	--	--	0.5 ppm (1,300 µg/m ³)
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	--
	Annual ^f	--	0.030 ppm (for certain areas)	--
PM ₁₀	24-Hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual ^f	20 µg/m ³	--	--
PM _{2.5}	24-Hour	--	35 µg/m ³	35 µg/m ³
	Annual ^f	12 µg/m ³	12.0 µg/m ³	15 µg/m ³
Lead ^f	Calendar quarter	--	1.5 µg/m ³ (for certain areas)	1.5 µg/m ³ (for certain areas)
	30-day	1.5 µg/m ³	--	--
	3-Month ^h	--	0.15 µg/m ³	0.15 µg/m ³
Sulfate	24-Hour	25 µg/m ³	--	--
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	--	--
Vinyl Chloride ^g	24-Hour	0.01 ppm (26 µg/m ³)	--	--
Visibility Reducing Particles	8-hours (10 am - 6 pm)	In sufficient amounts to reduce prevailing visibility to < 10 miles when relative humidity is < 70% w/ equivalent instrument method	--	--

ppm = Parts per Million by volume (or micromoles of pollutant per mole of gas)

µg/m³ = Micrograms per Cubic Meter

^a Standards for ozone, carbon monoxide, sulfur dioxide (1 and 24-hour), nitrogen dioxide, suspended particulate matter – PM₁₀ and PM_{2.5}, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current Federal policies.

^c Concentrations expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to match reference temperature and pressure.

^d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^e National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^f Annual Arithmetic Mean

^g The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

^h National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Source: CARB. 2016a. Ambient Air Quality Standards. May 4. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Within California, the Office of Environmental Health Hazard Assessment works with CARB to address health risk issues associated with TACs. The Office of Environmental Health Hazard Assessment establishes Reference Exposure Levels

as indicators of potential adverse health effects. A Reference Exposure Level is a concentration level of a TAC at or below which no adverse health effects are anticipated. The Office of Environmental Health Hazard Assessment has published health Risk Assessment Guidelines for the Air Toxics Hotspots program. Within California, those guidelines are commonly referenced in the adoption of general health risk policies, assessment guidelines, and thresholds at the regional level.

In August 1998, CARB listed “Particulate Matter Emissions from Diesel-Fueled Vehicles” as a TAC. In 2000, CARB developed a Risk Reduction Plan to address this source of TAC and is currently in the process of implementing this plan. The Risk Reduction Plan estimated cancer risk levels from diesel particulate matter emissions associated with various source categories, including freeways, stationary engines, distribution (trucking) centers, truck stops, and locations with concentrations of school bus idling. The Risk Reduction Plan contains the following three components:

- New regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter emissions by 90 percent overall from 2000 levels;
- New retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles where determined to be technically feasible and cost-effective; and
- New Phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 ppm to provide the quality of diesel fuel needed by the advanced diesel particulate matter emission controls.

According to the Risk Reduction Plan, “the projected emission benefits associated with the full implementation of this plan, including proposed Federal measures, are reductions in diesel particulate matter emissions and associated cancer risks [relative to a year 2000 baseline] of 75 percent by 2010 and 85 percent by 2020.” Since adoption of the Risk Reduction Plan, CARB has conducted regulatory activities to implement all three plan components. Examples include the “Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled Residential and Commercial Solid Waste Collection Vehicles” and Airborne Toxic Control Measures for stationary compression ignition engines; portable engines rated at 50 horsepower and greater; in-use diesel-fueled transport refrigeration units and their generator sets, and facilities where transport refrigeration units operate; and diesel-fueled commercial motor vehicle idling.

In 2005, CARB published *Air Quality and Land Use Handbook: A Community Health Perspective* (referred to hereafter as “Air Quality and Land Use Handbook”). This document includes various siting recommendations for proposed sensitive land uses relative to localized air pollution sources. Some of its recommendations are based on exposure to TACs in general and diesel particulate matter in particular. The Air Quality and Land Use Handbook recommends avoiding the siting of “new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.” This recommendation is based largely on the contribution of diesel particulate matter to the overall air pollution impact from such transportation sources.

In July 2007, CARB approved a new regulation to reduce emissions from existing off-road diesel vehicles in California in construction, mining, and other industries. The regulation requires vehicle fleets to either meet a set of fleet average targets for NO_x and particulate matter or to turn over and apply exhaust retrofits to a certain percent of the fleets’ horsepower (hp) per year. The first compliance date for large fleets was 2010, and the first compliance date for small fleets is 2015. This regulation is relevant to future restoration activities that may be completed under the Draft Fort Ord HCP. Regulatory amendments were identified in October 2010, where the CARB considered amendments to both the Truck and Bus Regulation and the In-Use Off-Road Vehicle Regulation. The amendments were designed to provide additional regulatory relief to affected fleets while still achieving California’s clean air commitments.

In December 2008, Office of Environmental Health Hazard Assessment approved the document: *Air Toxics Hot Spots Program Technical Support Document for the Derivation of Non-Cancer Reference Exposure Levels* (hereafter, the “Technical Support Document”). The Technical Support Document presents methodology revised to reflect scientific knowledge and techniques developed since the previous guidelines were prepared and to explicitly consider effects on the health of infants, children, and other sensitive subpopulations, in accordance with the mandate of the Children’s Environmental Health Protection Act (Senate Bill 25, Escutia, chapter 731, statutes of 1999, Health and Safety Code Sections 39669.5 et seq.). In addition to the previously defined acute and chronic Reference Exposure Levels, the new method allows for the estimation of 8-hour Reference Exposure Levels, which may be useful in dealing with some special

circumstances in Hot Spots risk assessments. The Technical Support Document also contains proposed Reference Exposure Levels for six chemicals (acetaldehyde, acrolein, arsenic, formaldehyde, manganese, and mercury)

3.3.3.3. Monterey Bay Air Resource District

As required by the California Clean Air Act and Amendments (HSC Section 40910 et seq.) and the Federal CAA and Amendments (42 U.S.C. Section 7401 et seq.), the MBARD is responsible for establishing and enforcing local air quality rules and regulations that address State and Federal air quality requirements in the NCCAB. The MBARD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education and public information activities related to air pollution. The MBARD, as required pursuant to California Health and Safety Code Sections 39002, et seq. and 40000, et seq., is the primary enforcement mechanism for air pollution control. The MBARD maintains rules and regulations for the implementation and enforcement for the attainment and maintenance of Federal and State ambient air standards. Per the California Clean Air Act (Health & Safety Code §40910 et seq.), MBARD prepared and adopted an initial Air Quality Management Plan (AQMP) in 1991 to address attainment of the State air quality standards. The AQMP has been updated seven times since 1991 with the adoption of the *2012-2015 Air Quality Management Plan* (2016 AQMP) by the MBARD Board of Directors on March 15, 2017. The MBARD also has adopted emission thresholds to determine the level of significance of a project's emissions.

The MBARD also implements a Smoke Management Program, which uses techniques, such as meteorology, fuel moisture, fuel loading, fire suppression and other burn methods to minimize the smoke impacts from prescribed burns. Smoke, which consists primarily of particulate matter, when combined with other chemicals can cause adverse health effects and/or aggravate existing health conditions. In addition, prescribed burns, when not managed properly, can result in a public nuisance; State and local regulations prohibit causing a public nuisance with smoke. All prescribed burns are required to be coordinated with MBARD staff to ensure measures are implemented to reduce potential health hazards due to fire.

Prescribed burns at the former Fort Ord could result in additional air quality effects due to the burning of chemicals, military munitions, and munitions-related debris. These effects are evaluated in Chapter 4, *Environmental Consequences*. Please note, however, that the burns will not release any toxic radioactive material into the air or cause the release of chemical weapons. No radioactive or chemical weapons were used at Fort Ord.

Ozone. In accordance with the California Clean Air Act, the MBARD developed the 2016 AQMP to address NCCAB's nonattainment status in regard to Ozone. As stated above, the 2016 AQMP is the seventh update to the initial AQMP prepared in 1991. The 2016 AQMP discusses the progress the region is making towards meeting the State's ozone standard. MBARD continues to focus on attaining the State's 8-hour component of the ozone standard.

Carbon Monoxide. The MBARD monitoring stations have not recorded violations of the Federal or State CO standard. In connection with proposed land development projects, the MBARD addresses potential CO exposure issues primarily through guidance on how and under what conditions local ambient CO "hot-spot" analysis should be performed in the context of air quality assessments for documents prepared pursuant to CEQA.

Particulate Matter. MBARD planning related to attainment of the State's PM₁₀ standard is addressed in the 2005 Report on the Attainment of the California Particulate Matter Standards in the Monterey Bay Region (Senate Bill 656 Implementation Plan, dated December 1, 2005). This plan describes the greater vulnerability of coastal locations within the NCCAB to PM₁₀ standard violations, due largely to the contribution from sea salt. It focuses primarily on controlling particles in fugitive dust and smoke related to combustion, but also addresses NO_x and reactive organic gases related to particulate matter formation. Consistent with the requirements of Senate Bill 656, and with the difficulty in estimating future ambient concentrations of particulate matter substantially influenced by fugitive dust sources (even disregarding unusual burn events), this plan concentrates on identification of and implementation scheduling for available particulate matter emission control measures.

Public Nuisances. MBARD regulates the creation of air pollutant emissions that would cause public nuisances while operating within the District under Rule 402. This rule states: "No person shall discharge from any source whatsoever

such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of people or to the public; or which endanger the comfort, repose, health or safety of any such person or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property” (HSC Section 41700).

Toxic Air Contaminants. MBARD Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants) addresses exposure issues for TACs in general. It applies to stationary sources for which the State has not adopted an Air Toxics Control Measure. It considers new and modified TACs source review and risk assessment requirements.

The MBARD assumes that diesel particulate matter is the key element of diesel exhaust with respect to cancer risk. The Technical Support Document presents methodology revised to reflect scientific knowledge and techniques developed since the previous guidelines were prepared and to explicitly consider effects on the health of infants, children, and other sensitive subpopulations, in accordance with the mandate of the Children’s Environmental Health Protection Act (Senate Bill 25, Escutia, chapter 731, statutes of 1999, Health and Safety Code Sections 39669.5 et seq.). In addition to the previously defined acute and chronic Reference Exposure Levels, the new method allows for the estimation of 8-hour Reference Exposure Levels, which may be useful in dealing with some special circumstances in Hot Spots risk assessments. The Technical Support Document also contains proposed Reference Exposure Levels for six chemicals (acetaldehyde, acrolein, arsenic, formaldehyde, manganese, and mercury). Although it was published in this document, the MBARD assumes that diesel particulate matter is the key element of diesel exhaust with respect to cancer risk. In addition, the District does not currently enforce the acrolein Reference Exposure Level per the MBARD’s *2008 CEQA Air Quality Guidelines* (page 9-1). This report addresses acrolein within the analysis of Diesel Particulate Matter, below. The affects of acrolein exposure were documented by the Technical Support Document to be temporary irritation of the eyes and respiratory system.

3.3.4. Air Pollutants and Effects

3.3.4.1. Criteria Pollutants

The Federal CAA established NAAQS for seven major air pollutants: CO, NO_x, O₃, PM₁₀, PM_{2.5}, SO_x, and lead. As described above, California has also developed State standards for these pollutants. In addition, California has standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. **Table 3.3-2** identifies the characteristics, health effects, typical sources of these major air pollutants, and their attainment status in the NCCAB Designations of attainment status are made by pollutant according to the following categories:

1. **Attainment** – Air quality in the area meets the standard.
2. **Nonattainment** – Air quality in the area fails to the applicable standard.
3. **Unclassified** – Insufficient data to designate area or designations have yet to be made.
4. **Attainment/Unclassified** - An EPA designation, which, in terms of planning implications, is essentially the same as Attainment.

Table 3.3-2. Federal Clean Air Act Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources	2015 Attainment Status*	
				State	Federal
Lead	Heavy metal	Can adversely affect a number of organs and systems including the nervous system, kidney function, immune system, reproductive system, developmental system, and cardiovascular system.	Sources vary	Attainment	Unclassified/Attainment
Ozone (O ₃)	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen). Often called photochemical smog. Highest concentrations of ozone are found downwind of urban areas.	Respiratory function impairment.	Factories and automobiles and evaporation of solvents and fuels.	Nonattainment-Transitional	Unclassified/Attainment**
Carbon Monoxide (CO)	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels. CO concentrations are highest in the winter, when radiation inversions over large areas can limit vertical dispersion.	Impairment of oxygen transport in the bloodstream. Aggravation of cardiovascular disease. Fatigue, headache, confusion, dizziness. Can be fatal in the case of very high concentrations.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.	Attainment (Monterey County) Unclassified (San Benito County & Santa Cruz County)	Unclassified/Attainment
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a reddish-brown gas that discolors the air, which is formed during combustion. Nitrogen dioxide levels in California have decreased in recent years due to improved automobile emissions. Ambient standards are typically not exceeded in North Central Coast Air Basin.	Increased risk of acute and chronic respiratory disease.	Automobile and diesel truck exhaust, industrial processes, and fossil-fuel powered plants. Also formed via atmospheric reactions.	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	Sulfur dioxide is a colorless gas with a pungent, irritating odor. Ambient standards for sulfur dioxide are rarely exceeded in the North Central Coast Air Basin.	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory disease.	Diesel vehicle exhaust, oil-powered power plants, industrial processes.	Attainment	Unclassified
PM ₁₀ & PM _{2.5}	Solid and liquid particles of dust, soot, aerosols and other matter that are small enough to	Aggravation of chronic disease and heart/lung disease symptoms.	Combustion, automobiles, field burning, factories, and	Nonattainment (PM ₁₀)	Unclassified (PM ₁₀)

Pollutant	Characteristics	Health Effects	Major Sources	2015 Attainment Status*	
				State	Federal
	remain suspended in the air for a long period of time. PM ₁₀ is particulate matter with diameter less than 10 microns. PM _{2.5} is particulate matter with diameter less than 2.5 microns. PM _{2.5} has been found to be more harmful to humans.		unpaved roads. Also, formed secondarily by photochemical processes of combustion emissions. PM _{2.5} is primarily a secondary pollutant.	Attainment (PM _{2.5})	Unclassified/Attainment (PM _{2.5})
* Source: CARB, 2016b					
** On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.					

3.3.4.2. Toxic Air Contaminants

According to Section 39655 of the California Health and Safety Code, a TAC is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health." In addition, substances that have been listed as Federal HAPs pursuant to Section 7412 of Title 42 of the United States Code are TACs under the State's air toxics program pursuant to Section 39657 (b) of the California Health and Safety Code. TACs can cause various cancers, depending on the particular chemicals, their type and duration of exposure. Additionally, some of the TACs may cause other health effects over the short or long term. TACs of particular concern for posing health risks in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel particulate matter.

Although ambient air quality standards exist for the criteria pollutants identified above, no ambient standards currently exist for TACs. CARB has consistently found that there are no levels or thresholds to use to determine exposure risk for TACs; individual TACs vary greatly in the risk. For example, one TAC may pose a hazard that is many times greater than another TAC at the same level of exposure. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health risks, a similar factor—called a Hazard Index—is used to evaluate risk. In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics.

3.3.5. Existing Conditions and Ambient Air Quality Standards

Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height may all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while frequent, short-term variations result from changes in atmospheric conditions. Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, as well as by the climactic and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants, such as CO and PM₁₀, is proximity to major sources. Ambient CO levels, for example, usually closely follow the spatial and temporal distributions of vehicular traffic.

CARB (occasionally with the assistance of private sector partners) and relevant air pollution control districts operate a number of ambient air quality monitoring stations throughout the County and the remainder of the NCCAB. The MBARD monitors air quality at ten monitoring stations in the NCCAB. The National Park Service also operates a station at Pinnacles National Monument. The closest monitoring station in the Proposed Action vicinity is located in Salinas (855 E. Laurel Dr.). Pollutants monitored on a continuous basis at the Salinas site include ozone, PM₁₀ and PM_{2.5}, CO, and NO_x – NO₂. Recent statistics on air quality concentrations and exceedances of ambient air quality standards are provided at: <http://www.arb.ca.gov/html/ds.htm>.

Table 3.3-3 summarizes the highest measured concentrations of selected key air pollutants recorded at the closest monitoring station (Salinas). According to information obtained from CARB, the Salinas monitoring station has shown

zero violations of the State 1-hour ozone standard during the three most recent years for which data are available. Based on available data, no reported exceedance of other State or Federal standards has occurred during the last three years of available data. Concentrations of CO did not approach the State or Federal standards; however, CO concentrations in the vicinity of congested intersections and freeways would be expected to be higher than those recorded at the monitoring station, and local, unrecorded exceedances may have occurred.

Table 3.3-3. Highest Measured Air Pollutant Concentrations at the Salinas Monitoring Station

Pollutant	Average Time	Measured Air Pollutant Levels		
		2014	2015	2016
Ozone (O₃)	1-Hour	0.066 ppm	0.068 ppm	0.066 ppm
	Number of Days Exceeding Standard (State/Federal):	0/0	0/0	0/0
	8-Hour (State)	0.062 ppm	0.061 ppm	0.058 ppm
	Number of Days Exceeding Standard (State/Federal):	0/0	0/0	0/0
Fine Particulate Matter (PM_{2.5})	24-Hour	20.4 ug/m ³	22.8 ug/m ³	28.7 ug/m ³
	Number of Days Exceeding Standard (State/Federal):	NA/0	NA/0	NA/0
	Annual Average	4.8 ug/m ³	4.8 ug/m ³ (Natl) 5.0 ug/m ³ (State)	5.5 ug/m ³
	Number of Days Exceeding Standard (State/Federal):	0/0	0/0	0/0
Fine Particulate Matter (PM₁₀)	24-Hour (State/Federal)	NA	NA	NA
	Number of Days Exceeding Standard (State/Federal):	NA	NA	NA
	Annual Average (State)	NA	NA	NA
	Number of Days Exceeding Standard (State/Federal):	NA	NA	NA
Note: ppm = parts per million and ug/m ³ = micrograms per cubic meter Values reported in bold exceed applicable State ambient air quality standard NA = data insufficient or not available. Source: CARB, 2017a				

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged differently for each air pollutant. The NCCAB is classified as an attainment area for all Federal ozone standards, as well as a non-attainment area for the State PM₁₀ and 1-hour ozone standards. For all other standards, the NCCAB is either unclassified or in attainment.

3.3.5.1. Toxic Risk Levels

For TACs, impacts are often evaluated ultimately in terms of cancer risk or (for non-cancer effects) in terms of proportions of applicable Reference Exposure Levels. At the present time, one can infer from the cancer risk mapping published by the CARB's Emission Inventory Branch that most areas within the County of Monterey are exposed to average inhalation cancer risk levels between about 50 and 250 per million.

3.3.6. Sensitive Receptors

For the purposes of air quality and public health and safety, sensitive receptors are generally defined as land uses with population concentrations that would be particularly susceptible to disturbance from dust and high air pollutant concentrations, or other disruptions associated with Proposed Action construction and/or operation. Sensitive receptor land uses generally include schools, day care centers, libraries, hospitals, residential areas, and parks. Sensitive receptors, including residences, schools, and parks, are located within the former Fort Ord or are planned as future land uses as part of base redevelopment.

3.4 BIOLOGICAL RESOURCES

3.4.1 Introduction

This section provides the results of the analysis of biological resources conducted for the Proposed Action and alternatives. The analysis includes a description of the existing biotic resources, identification of the special-status plant and wildlife species and sensitive habitats that occur or may occur in the Plan Area and vicinity, and applicable Federal, State, and local regulations. The analysis is based upon the biological resources described in the background documents listed in **Section 3.4.4, Methodology**, below and the Draft Fort Ord HCP. The biological setting is general in nature encompassing 27,832 acres and the vicinity. Some field verification and site-specific survey data has been incorporated into this section (please refer to **Section 3.4.4, Methodology**); however, site-specific surveys and analyses would be conducted as needed for future projects under subsequent environmental review.

3.4.2 Regulatory Framework

3.4.2.1 Federal

Federal Endangered Species Act

Provisions of the ESA of 1973 (16 USC 1532 et seq., as amended) and its regulations protect federally listed threatened or endangered species from unlawful take. The ESA is administered by the USFWS or National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries). In general, NOAA Fisheries is responsible for the protection of ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered. Take, as defined by ESA, is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under Federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under Federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for Federal actions or a Section 10 ITP process for non-Federal actions. Federal agency actions include activities that are on Federal land, conducted by a Federal agency, funded by a Federal agency, or authorized by a Federal agency (including issuance of Federal permits).

Critical Habitat

Critical habitat is a term defined and used in the Federal ESA. It is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species if the area is essential for its conservation. The final boundaries of the critical habitat area are also published in the Federal Register. Federal agencies are required to consult with the USFWS on actions they carry out, fund, or authorize to ensure that their actions will not destroy or adversely modify critical habitat. In this way, a critical habitat designation protects areas that are necessary for the conservation of the species. Designated critical habitat for Monterey spineflower and western snowy plover occur in the Plan Area; please refer to Section 3.4.9, Sensitive Habitats, for more details).

Recovery Plans

The ultimate goal of the ESA is the recovery (conservation) of endangered and threatened species and the ecosystems on which they depend. A variety of methods and procedures are used to recover listed species, such as protective measures to prevent extinction or further decline, consultation to avoid adverse impacts of Federal activities, habitat acquisition and restoration, and other on-the-ground activities for managing and monitoring endangered and threatened species. The collaborative efforts of the USFWS and its many partners (e.g., Federal, State, and local agencies, Tribal governments, conservation organizations, the business community, landowners, and other concerned citizens) are critical to the recovery of listed species.

Five recovery plans have been prepared for listed species known or with the potential to occur within the action area:

- Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*) (USFWS, 2017a);
- Recovery Plan for the California Red-legged Frog (USFWS, 2002a);
- Smith’s Blue Butterfly Recovery Plan (USFWS, 1984);
- Recovery Plan for Seven Coastal Plants and the Myrtle’s Silverspot Butterfly (USFWS, 1998); and
- Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (USFWS, 2007).

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 651 et seq.) requires all Federal agencies to consult with and give strong consideration to the views of the USFWS, NOAA Fisheries, and State wildlife agencies regarding the fish and wildlife impacts of projects that propose to impound, divert, channel, or otherwise alter a body of water.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA and implements Conventions (treaties) between the United States and four countries for the protection of migratory birds – Canada, Mexico, Japan, and Russia. The USFWS maintains a list of migratory bird species that are protected under the MBTA, which was updated in 2013 to: 1) correct previous mistakes, such as misspellings or removing species no longer known to occur within the United States; 2) add species, as a result of expanding the geographic scope to include Hawaii and U.S. territories and new evidence of occurrence in the United States or U.S. territories; and 3) update name changes based on new taxonomy (USFWS, 2013).

Clean Water Act

The USACE and U.S. EPA regulate discharge of dredged and fill material into “Waters of the United States” (waters of the U.S.) under Section 404 of the Clean Water Act (CWA). Waters of the U.S. are defined broadly as waters susceptible to use in commerce (including waters subject to tides, interstate waters, and interstate wetlands) and other waters (such as interstate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds) (33 CFR 328.3). Potential wetland areas are identified as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Under Section 401 of the CWA, any applicant receiving a Section 404 permit from the USACE must also obtain a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). A Section 401 Water Quality Certification is issued when a project is demonstrated to comply with State water quality standards and other aquatic resource protection requirements.

Executive Order 13112 – Invasive Species

Executive Order (EO) 13112 - Invasive Species requires the prevention of introduction and spread of invasive species. Invasive species are defined as “alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Each Federal agency whose actions may affect the status of invasive species on a Project Site shall, to the extent practicable and permitted by law, subject to the availability of appropriations, use relevant programs and authorities to: 1) prevent the introduction of invasive species; 2) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; 3) monitor invasive species populations accurately and reliably; 4) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; 5) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and 6) promote public education on invasive species and the means

to address them. A national invasive species management plan was prepared by the National Invasive Species Council and the Invasive Species Advisory Committee (ISAC) that recommends objectives and measures to implement the EO.

The California Invasive Plant Council (Cal-IPC) Inventory categorizes non-native invasive plants that threaten California's wildlands. Categorization is based on an assessment of the ecological impacts of each plant. The Cal-IPC Inventory represents the best available knowledge of invasive plant experts in the state. Although the impact of each plant varies regionally, its rating represents cumulative impacts statewide. Therefore, a plant whose statewide impacts are categorized as "Limited" may have more severe impacts in a particular region. Conversely, a plant categorized as having a "High" cumulative impact across California may have very little impact in some regions.

Executive Order 11990 – Protection of Wetlands

EO 11990 - Protection of Wetlands calls for no net loss of wetlands. For the regulatory process, the USACE and U.S. EPA jointly define wetlands as follows: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Federal agencies are required to implement the following procedures for any Federal action that involves wetlands: 1) provide an opportunity for early public involvement; 2) consider alternatives that would avoid wetlands, and if avoidance is not possible, measures to minimize harm to wetlands must be included in the action; 3) prepare a "Wetlands Only Practicable Alternative Finding" for actions that require an Environmental Impact Study.

3.4.2.2 State

California Endangered Species Act

CESA was enacted in 1984. The CCR (Title 14, §670.5) lists animal species considered endangered or threatened by the State. Section 2090 of CESA requires State agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the CFG Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. "Take" is defined in Section 86 of the CFG Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." It does not include habitat destruction in the definition of take. A Section 2081 Incidental Take Permit from the CDFW may be obtained to authorize "take" of any State listed species.

California Fish and Game Code

Birds

Section 3503 of the CFG Code prohibits the killing, possession, or destruction of bird eggs or bird nests. Section 3503.5 and 3513 prohibit the killing, possession, or destruction of all nesting birds (including raptors and passerines). Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 prohibits the take or possession of any migratory nongame birds designated under the Federal MBTA. Section 3800 prohibits take of nongame birds.

Fully Protected Species

The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish (§5515), mammals (§4700), amphibians and reptiles (§5050), and birds (§3511). Most Fully Protected species have also been Listed as Threatened or Endangered species under the more recent endangered species laws and regulations. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Lake or Streambed Alteration

Sections 1600-1607 of the CFG Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the CDFW before beginning construction. If the CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a

Lake or Streambed Alteration Agreement will be required. The CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider.

Species of Special Concern

As noted above, the CDFW also maintains a list of animal “species of special concern.” Although these species have no legal status, the CDFW recommends considering these species during analysis of impacts to protect declining populations and avoid the need to list them as Endangered in the future.

Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 directed the CDFW to carry out the legislature’s intent to “preserve, protect and enhance rare and Endangered plants in the State.” The CNPPA prohibits importing rare and Endangered plants into California, taking rare and Endangered plants, and selling rare and Endangered plants. The CESA and CNPPA authorized the CFG Commission to designate endangered, threatened and rare species and to regulate the taking of these species (§2050-2098, CFG Code). Plants listed as rare under the CNPPA are not protected under CESA.

California Coastal Act

The California Coastal Commission (CCC) was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the California Coastal Act (CCA) of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California’s coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards (NOAA website <https://coast.noaa.gov/czm/media/StateCZBoundaries.pdf> link to State Coastal Zone Boundaries).

Development activities, which are broadly defined by the CCA to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a Coastal Development Permit (CDP) from either the CCC or the local government if a Local Coastal Program (LCP) has been certified. After certification of a LCP, coastal development permit authority is delegated to the appropriate local government, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The CCC also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. A CDP is required in addition to any other permit required from resource agencies. There are no certified LCPs within the Plan Area.¹

The CCC or the local government may designate areas of rare or unique biological value, such as wetland and riparian habitat and habitats for special-status species, as Environmentally Sensitive Habitat Areas (ESHA). Section 30107.5 of the CCA defines an “environmentally sensitive area” as any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Development is restricted within the coastal zone and prohibited within designated ESHA, unless the development is coastal dependent and does not have a significant effect on the resources. CCA Section 30240 states that “environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.” This section also states that “development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.”

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne) is California’s statutory authority for the protection of water quality and applies to surface waters, wetlands, and groundwater, and to both point and nonpoint

¹ The only portion of the Plan Area within the Coastal Zone is the FODSP HMA, which is located within the County. However, future actions within the FODSP will be under the jurisdiction of State Parks and, therefore, State Parks would be the permit applicant for future CDPs, if required, in the absence of a County LCP in the Plan Area.

sources. Under the Porter-Cologne, the State Water Resources Control Board (State Board) has the ultimate authority over State water rights and water quality policy. However, Porter-Cologne also establishes nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. The Project site is located within Region 3 – Central Coast RWQCB. Porter-Cologne incorporates many provisions of the federal CWA, such as delegation to the State Board and RWQCBs of the National Pollutant Discharge Elimination System (NPDES) permitting program.

Under Porter-Cologne, the state must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegate to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Porter-Cologne sets forth the obligations of the State Board and RWQCBs to adopt and periodically update water quality control plans (basin plans). The act also requires waste dischargers to notify the RWQCBs of such activities through filing of Reports of Waste Discharge (RWD) and authorizes the State Board and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD requirements and WDRs for broad categories of “low threat” discharge activities that have minimal potential for adverse water quality effects, when implemented according to prescribed terms and conditions.

The term “Waters of the State” is defined by Porter-Cologne as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope but has special responsibility for wetlands, riparian areas, and headwaters, including isolated wetlands, and waters that many not be regulated by the ACOE under Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne.

Oak Woodlands Conservation – Senate Bill 1334

Senate Bill (SB) 1334 enacted a new CEQA provision, PRC Section 21083.4, which was effective January 1, 2005, that requires counties acting as lead agencies to consider the possible impacts of oak woodland conversion as part of the CEQA review for all projects. According to California PRC 21083.4, if the County determines that there may be a significant impact on oak woodlands, the County must require one or more of the following oak woodlands mitigation alternatives:

1. Conserve oak woodlands, through the use of conservation easements.
2. (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
 - (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.
 - (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project.
 - (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
3. Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.
4. Other mitigation measures developed by the county.

3.4.2.3 Local

Fort Ord Habitat Management Plan

The U.S. Army’s decision to close and dispose of the Fort Ord military base was considered a major Federal action that could affect listed species under the ESA. The USFWS issued the 1993 BO (1-8-93-F-14) requiring the development and implementation of the HMP to reduce the incidental take of listed species and loss of habitat that supports these species.

The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss associated with the disposal and reuse of former Fort Ord (USACE, 1997). The HMP covered the following species:

- Robust spineflower (*Chorizanthe robusta* var. *robusta*)
- Sand gilia
- Monterey spineflower
- Coast wallflower (*Erysimum ammophilum*)
- Eastwood's ericameria (*Ericameria fasciculata*)
- Monterey ceanothus (*Ceanothus cuneatus* var. *rigidus*)
- Sandmat manzanita (*Arctostaphylos pumila*)
- Seaside bird's beak
- Toro manzanita (*Arctostaphylos montereyensis*)
- Smith's blue butterfly (*Euphilotes enoptes smithi*)
- Northern California legless lizard
- California red-legged frog
- Western snowy plover

The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the HMP is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at former Fort Ord and parcels are designated as "development with no restrictions," "habitat reserves with management guidelines," or "habitat reserves with some development allowed." The HMP sets the standards to assure the long-term viability of former Fort Ord's biological resources in the context of base reuse so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. This plan has been approved by the USFWS; the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. It is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures.

The HMP anticipates some losses to special-status species and sensitive habitats as a result of redevelopment of the former Fort Ord. With the designated reserves and corridors and habitat management requirements in place, the losses of individuals of species and sensitive habitats considered in the HMP are not expected to jeopardize the long-term viability of those species, their populations, or sensitive habitats on former Fort Ord. Recipients of disposed land with restrictions or management guidelines designated by the HMP will be obligated to implement those specific measures through the HMP and through deed covenants.

However, the HMP does not provide specific authorization for incidental take of Federal or State listed species to existing or future non-Federal land recipients under the ESA or CESA, which is why FORA is pursuing ITPs.

County of Monterey Code

Title 16, Chapter 16.60, County of Monterey Code, provides for the preservation of oaks and other protected tree species within the unincorporated areas of the County. As defined in Chapter 16.60.040 C, removal of more than three protected trees on a lot in a one-year period requires a Forest Management Plan (FMP) and approval of a Use Permit by the County of Monterey Planning Commission. The FMP must be prepared by a qualified forester selected from the County's list of consultants. Chapter 16.060.040 D requires that the applicant relocate or replace each removed tree on a one-to-one ratio. This ratio may be varied upon showing that such a requirement will create a special hardship in the use of the site or such a replacement would be detrimental to the long-term health and maintenance of the remaining habitat.

City of Marina Municipal Code Chapter 12.04

The City of Marina Municipal Code Chapter 12.04 (Tree Removal, Preservation, and Protection) outlines the policies regarding tree removal and relocation. The policies applicable to this Project include Section 12.04.030 (Unlawful Action upon Trees) and Section 12.04.060 (Tree Removal Permit). As outlined in Section 12.04.060 (D), if it is determined by the City of Marina that adverse effects of tree removal can be mitigated, conditions shall be imposed on the removal, including, but not limited to, one or more of the following: 1) compensation plan, 2) site restoration plan, and 3) tree protection plan and program.

City of Seaside Municipal Code Chapter 8.54

The City of Seaside Municipal Code Chapter 8.54 (Trees) outlines the policies regarding tree removal and planting. The policies applicable to this Project include Section 8.54.030 (Permit—Required for certain tree removal, alteration or planting), Section 8.54.060 (New construction, development, subdivisions and site plans), and Section 8.54.070 (Replacement of Trees). As outlined in Section 8.54.070, if removal of a tree from a site has been authorized on an undeveloped parcel, the developer shall replace the tree with a minimum five-gallon specimen tree of a species and in a location approved by the board of architectural review, if applicable, or other individual or body responsible for the approval of applicant's plans. This requirement may be modified or waived if it is determined that replacement on a one-for-one basis constitutes an unreasonable hardship.

City of Monterey Municipal Code Chapter 37

The City of Monterey Municipal Code Chapter 37 (Preservation of Trees and Shrubs) outlines the policies regarding tree removal. The policies applicable to this Project include Section 37-2.5 (Protection of Trees During Construction), Section 37-8 (Removal or damaging trees on private property; permit required), and Section 37-11 (Conditions of Removal/Mitigation measures). As outlined in Section 37-11 (D), if it is determined by the City of Monterey that adverse effects of tree removal can be mitigated, conditions shall be imposed on the removal, including, but not limited to, one or more of the following: 1) No replacement tree, 2) One replacement tree, 3) Up to three replacement trees, 4) Payment in lieu of replacement, 5) Payment in lieu of maintenance, 6) Maintenance and care program, and 7) Replacement tree maintenance.

3.4.3 Habitat Conservation Plans or Natural Community Conservation Plans

There are no adopted HCPs or NCCPs in the Plan Area.

3.4.4 Methodology

The following section discusses the methodology used to describe the affected environment for biological resources in the action area. Methods consisted of a review of resource agency databases and inventories of special-status species, agency coordination and professional contacts, review of existing and recent environmental documents in the action area, and incorporation of the occurrence data for the covered species from the Draft Fort Ord HCP.

3.4.4.1 Data Sources

The most comprehensive surveys that took place in the Plan Area were the Army's 1992 *Flora and Fauna Baseline Study of Fort Ord, California* (baseline studies) conducted by Jones & Stokes Associates (J&S) (USACE, 1992). The parameters used in the baseline studies (e.g., size of polygons, scale of mapping, abundance and density criteria) were established for large-scale assessment. Survey methods involved dividing the former military base into polygons of a few acres to several hundred acres in size and assigning the entire polygon as "occupied" if the species was found within it, at low (0 to 100s), medium (100s to 1,000s), or high (more than 1,000s) densities. This data is referred to as the *J&S 1992 baseline polygon data*. Please refer to Chapter 4, Section 4.1. *Approach*, of the Draft HCP for more details on this methodology.

The J&S 1992 baseline polygon data was updated to include results from site-specific surveys conducted for various projects in the Plan Area up through 2017 for all HCP species. For HCP plant species, to make the new data comparable

to the original baseline data, the more recent data was extrapolated to the polygon level using the J&S 1992 polygons. Where a post-1992 plant species occurrence was recorded, the entire polygon in which it occurred was identified as a low, medium, or high density occurrence. For HCP animal species, major updates include the following:

- **Smith's blue butterfly.** Existing literature and occurrence records, as well as data provided by the Army, State Parks, local expert David Styer, HLA, and Zander Associates, were used to evaluate the effects on Smith's blue butterfly and its host plants. The extent of buckwheat host plants on FODSP as mapped in 1996, 1999, 2002, and 2008 was considered potential habitat. In addition, data from various sources, including Fort Ord botanical experts Bruce Delgado and David Styer, were gathered to identify habitat patches east of Highway 1.
- **Western snowy plover.** Existing literature, occurrence records, and aerial photos, as well as the results of recent surveys and estimates of potential habitat provided by State Parks, were used to evaluate effects on western snowy plover. In addition, Point Blue Conservation Science (PBCS)² and State Parks nesting observation data were incorporated from 2005 through 2016.
- **California tiger salamander.** The effects of covered activities on California tiger salamander were evaluated using information provided in the Army's request for consultation on Contra Costa goldfields critical habitat and request for conference on California tiger salamander dated July 19, 2004 (Youngblood, 2004) and Biological Opinion 1-8-04-F-25R dated March 14, 2005 (USFWS, 2005). In addition, new occurrences up through 2016 were included.
- **California red-legged frog.** The HMP habitat map (USACE, 1997) was updated to include a 1-mile (1.6 km) radius around occupied and potential breeding sites to calculate potential upland habitat. A single species occurrence (larvae observed) at Pond 998 South in 2011 was added to the species habitat map.

Appendix A of the Draft HCP provides the mapped habitat area and the occurrence maps for each species. The following sources were used to compile natural communities and species-specific data:

- J&S baseline polygon data (1992);
- Zander Associates baseline update (2007) for sand gilia, seaside bird's beak, and Yadon's piperia;
- California Natural Diversity Database (CNDDDB) occurrence reports (CDFW, 2017a);
- Army GIS files (JSA 92, post-92, annual monitoring reports through 2017);
- Landfill sand gilia survey (Zander Associates 2008);
- Local biologists (Sean McStay/Gage Dayton for FONR species; David Styer for locations of buckwheat and Yadon's piperia populations; Bruce Delgado for California red-legged frog; and Bill Collins for California tiger salamander);
- Biological assessments and opinions for the former Fort Ord and surrounding area; and
- Results from project-specific surveys (e.g., Marina Heights, The Dunes, Seaside Main Gate, East Garrison, CSUMB Master Plan, MCWD projects, and Del Rey Oaks Resort, Cypress Knolls, FONR OU-1 Monitoring Data, Monterey Downs Specific Plan, and California Central Coast Veterans Cemetery).

The primary literature and data sources reviewed in order to determine the occurrence or potential for occurrence of other special-status species not covered under the Draft Fort Ord HCP within the Plan Area are as follows:

- current agency status information from the USFWS and CDFW for species Listed, Proposed for listing, or Candidates for listing as Threatened or Endangered under ESA or CESA, and those considered CDFW "species of special concern" (CDFW, 2017b);
- List of Federally Listed Threatened and Endangered Species That May Occur in the Draft Fort Ord HCP Plan Area (USFWS, 2017b);
- the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2017);

² Point Blue Conservation Science was formerly known as Point Reyes Bird Observatory Conservation Science.

- CDFW CNDDDB occurrence reports (CDFW, 2017a) for the Marina, Salinas, Spreckels, and Seaside quadrangles and the ten surrounding quadrangles (Moss Landing, Prunedale, San Juan Bautista, Natividad, Chualar, Rana Creek, Carmel Valley, Mt. Carmel, Soberanes Pt., and Monterey);
- Soil Survey of the County of Monterey (USDA-Soil Conservation Service, 1978);
- aerial photographs of the project site (Central Coast Joint Data Committee, 2003 and Google Earth, 2017)
- Vascular Plants of Fort Ord list – alphabetical, (U.S. Department of the Interior-BLM, 2013);
- *BLM Hollister Special Status Plants*, Nov 2, 2011, detailed list (U.S. Department of the Interior-BLM, 2011), and *All BLM California Special Status Plants*, concise list (U.S. Department of the Interior-BLM 2015); and
- *Special Status Animals in California, including BLM Designated Sensitive Species*, (U.S. Department of the Interior-BLM, 2010).

Information regarding the distribution and habitats of local and State vascular plants was also reviewed (Howitt and Howell, 1964; Howitt and Howell, 1973; Munz and Keck, 1973; Baldwin et. al, 2012; Matthews, 2006; Jepson Flora Project, 2014). The following literature and data sources for wildlife species were reviewed: CDFW reports on special-status wildlife (Remsen, 1978; Williams, 1986; Jennings and Hayes, 1994; Thelander, 1994); California Wildlife Habitat Relationships Program species-habitat models (CDFW, 2008; Zeiner et al., 1988; Zeiner et al., 1990a; and Zeiner et al., 1990b); and general wildlife references (Stebbins, 1985).

From these resources, a list of special-status plant and wildlife species known or with the potential to occur in the Plan Area was created (please refer to **Table B-1 in Appendix B**). The list presents these species along with their legal status, habitat requirements, and a brief statement regarding the likelihood for the species to occur.

Special-Status Species

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the ESA or CESA. Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Section 15380 are also considered special-status species. Animals on the CDFW’s list of “species of special concern” (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA.

Plants listed as rare under the CNPPA or included in CNPS California Rare Plant Ranks (CRPR; formerly known as CNPS Lists) 1A, 1B, 2A, and 2B are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380. In general, the CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2017) be fully considered during the preparation of environmental documents relating to CEQA. In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by the Department are considered special-status plant species (CDFW, 2017c). The CDFW also includes some animal species that are not assigned any of the other status designations in the CNDDDB “Special Animals” list (CDFW, 2017b). The CDFW considers the taxa on this list to be those of greatest conservation need, regardless of their legal or protection status.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both Federal and State laws and regulations. The MBTA of 1918 and CFG Code Section 3513 prohibit killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Birds of prey are protected in California under CFG Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto.” In addition, fully protected species under the CFG Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special status

designation but thought by experts to be rare or in serious decline are also considered special-status animal species (CDFW, 2017b).

BLM Sensitive plants are those plant species that are not Federally Endangered, Threatened, or Proposed, but are designated by the BLM State Director for special management consideration. In California, this includes all plants that are Federal Candidates for listing, all plants that are listed as Endangered, Threatened, or Rare by the State of California, all plants that have a CRPR 1B in the most current online version of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (unless the State Director has determined, on a case-by-case basis, that a particular CRPR 1B plant does not require Sensitive status), and any other plants the State Director has determined to warrant Sensitive status. Because of BLM's scattered land pattern in much of California, the Sensitive plant list includes – in addition to those plants known to occur on BLM lands – plants that are suspected to occur on BLM lands due to their proximity or the similarity of their known habitat to habitat known to exist on BLM lands. As more inventory work is completed, these suspected plants will either be re-designated as "known" to occur on BLM lands or dropped from the Sensitive plant list.

Sensitive Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the CDFW's *Natural Communities List* (i.e., those habitats that are Rare or Endangered within the borders of California) (CDFW, 2010), those that are occupied by species listed under ESA or are critical habitat in accordance with ESA, and those that are defined as ESHA under the CCA). Specific habitats may also be identified as sensitive in city or county General Plans or ordinances. Sensitive habitats are regulated under Federal regulations (such as the CWA and EO 11990 – Protection of Wetlands), State regulations (such as CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances, Habitat Management Plan areas, and General Plan elements).

3.4.5 Regional Setting

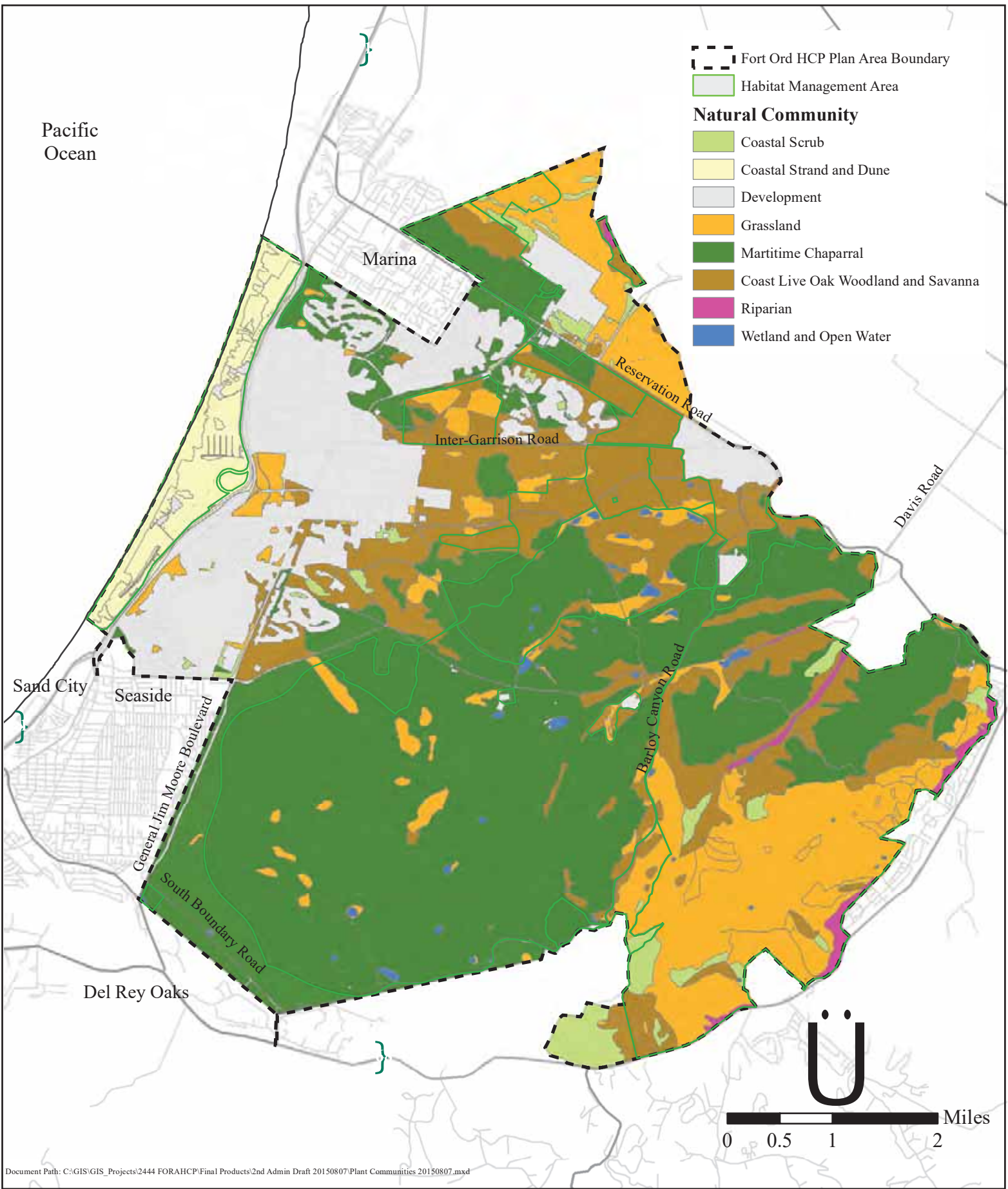
The Plan Area, located between the Salinas and Carmel River watersheds, has a moderate Mediterranean climate, receiving 90% of its average 14.2 inches of annual precipitation from November through April. Most of the 27,832-acre former base consists of undeveloped training and open space areas, with 84% (23,473 acres) undeveloped and 16% (4,359 acres) developed. The three major developed areas in the Plan Area are the former Main Garrison and East Garrison areas and the Marina Municipal Airport, formerly known as the Fritzsche Army Airfield.

The topography of the Plan Area is characterized by stabilized sand dunes in the western half of the base, transitioning to rolling hills and canyons in the eastern half. The sandy soils in the western half of the base are highly permeable and absorb much of the rainfall and runoff without forming distinct creek channels. The streams in the canyons in the eastern part of the base are small and intermittent. A number of creeks drain into the Salinas River. Canyon Del Rey drains the southern portion of the base and empties into Monterey Bay, a designated national marine sanctuary.

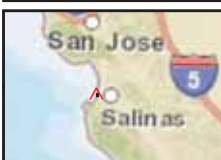
The soils in the Plan Area are characteristically medium-grained sand of low organic content. The soils are low in fertility and water-holding capacity, highly erodible, and excessively well drained. Although there are some minor inclusions of other soils, most of the soils in the Plan Area are represented in six major soil series (Arnold, Antioch, Baywood, Diablo, Oceano, and Santa Ynez) and three general classifications (Coastal beaches, Dune land, and Xerorthents).

3.4.6 Habitat Types

The wide range of climatic, topographic, and soil conditions within the Plan Area contribute to the variety and uniqueness of the biological communities present. Eight broad categories of biological communities have been identified in the Plan Area: coastal strand and dune communities; maritime chaparral; coastal scrub; coast live oak woodland & savanna; grassland; riparian; wetland and open water; and marine communities. Chapter 2, *Environmental Setting*, of the Draft Fort Ord HCP provides detailed descriptions of these biological communities. The approximate location and extent of each natural community is depicted on **Figure 3.4-1**. A summary of the habitat acreages is included in **Table 3.4-1**. The acreages of coast live oak woodland by land use authority and land use designation are provided in **Table 3.4-2**.



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Title: **Natural Communities**

File: NaturalCommunities.pdf

Date: 8/7/2015

Scale: 1 in = 1 mile

Project: 2444

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Figure **3.4-1**

Table 3.4-1. HCP Plan Area Land Covers

Location	Land Cover (Acres)									
	Natural Communities (Undeveloped Land Cover)							Developed		Total
	Coastal Strand and Dune	Maritime Chaparral	Coastal Scrub	Coast Live Oak Woodland and Savanna	Grasslands	Riparian	Wetland and Open Water	Total Natural Communities	Existing Development	
Designated Development Areas	51	2,045	373	1,559	1,020	2	2	5,051	4,241	9,292
Non-Federal HMAs										
East Garrison North	0	6	0	142	0	0	0	148	0	148
East Garrison South	0	203	0	55	16	0	1	274	0	275
FONR	0	337	4	243	19	0	0	603	3	606
FODSP	936	0	0	0	0	0	0	936	43	979
Habitat Corridor/Youth Camp	0	0	0	376	17	0	1	394	4	398
Landfill Parcel	0	36	0	151	116	0	0	304	4	308
Lookout Ridge	0	1	23	39	128	0	<1	191	4	196
Wolf Hill	0	77	0	0	0	0	<1	77	2	79
Marina Airport Habitat Reserve	0	0	20	2	109	0	0	130	0	130
Range 45 Reserve	0	206	0	0	0	0	0	206	0	206
Natural Area Expansion	0	18	0	0	0	0	1	19	0	19
Marina Northwest Corner	0	55	0	0	8	0	0	63	0	63
Oak Oval Reserve	0	0	0	72	1	0	0	72	0	73
Parker Flats Reserve	0	170	0	179	19	0	0	369	3	372
Salinas River Habitat Area	0	0	0	32	1	11	0	43	0	43
Non-Federal HMAs Total	936	1,110	47	1,291	433	11	3	3,831	64	3,895
Federal HMAs										
BLM FONM	0	2,447	242	1,612	2,699	178	63	7,242	25	7,267
Army Lands pending transfer to BLM	0	6,748	0	274	269	0	58	7,349	29	7,378
Federal HMAs total	0	9,195	242	1,886	2,969	178	122	14,591	54	14,645
Totals										
HMAs Total	936	10,305	289	3,177	3,402	189	125	18,422	118	18,540
Plan Area Total	987	12,349	662	4,736	4,421	191	127	23,474	4,359	27,832

3.4.7 Special-Status Wildlife Species

A total of 50 special-status fish and wildlife species are known or have the potential to occur in the Plan Area. Please refer to **Appendix B**, Table B-1, for a summary of legal status, habitat, and likelihood for occurrence within the Plan Area for each of these special-status species. Of these 50 special-status wildlife species, four would be covered under the Draft Fort Ord HCP. These HCP species include:

- Smith’s blue butterfly,
- California tiger salamander,
- California red-legged frog, and
- Western snowy plover.

Table 3.4-2. Coast Live Oak Woodland and Savanna by Land Use Authority and Land Use Designation

Land Use Authority	Land Use Designation	Coast Live Oak Woodland and Savanna (acres)
BLM	FONM	1,886
State Parks	FODSP	0
UC	FONR	243
	Designated Development Areas	21
County of Monterey	East Garrison Reserve	197
	<i>North</i>	<i>142</i>
	<i>South</i>	<i>55</i>
	Habitat Corridor/Travel Camp	376
	Oak Oval Reserve	72
	Parker Flats Reserve	179
	Landfill Parcel	151
	Laguna Seca Recreational Expansion	39
	<i>Wolf Hill</i>	<i>0</i>
	<i>Lookout Ridge</i>	<i>39</i>
	Natural Area Expansion*	0
	Designated Development Areas	621
City of Marina	Salinas River Habitat Area	32
	Marina Airport Habitat Reserve	2
	Marina Northwest Corner	0
	Designated Development Areas	39
MPC	Range 45 Reserve	0
	Designated Development Areas	110
City of Seaside	Designated Development Areas	403
City of Del Rey Oaks	Designated Development Areas	0
City of Monterey	Designated Development Areas	0
CSUMB	Designated Development Areas	365
Total		4,736

* MPRPD owns the NAE property; however, the County is the permitting authority.

Chapter 2, *Environmental Setting*, of the Draft Fort Ord HCP provides detailed descriptions of these species. **Appendix A** of the Draft HCP includes the occurrence maps for these species within the Plan Area. **Table 3.4-3** provides a summary of the acreages of known or potential habitat for these species.

Table 3.4-3. HCP Animal Species Occupied and Potential Habitat

Scientific Name	Common Name	Occupied Habitat (acres) or Occurrence Points		Potential Habitat (acres)
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly	388 occurrence points		110
<i>Charadrius nivosus</i>	Western snowy plover	272 occurrence points		71
<i>Ambystoma californiense</i>	California tiger salamander	Upland	—	19,598
		Breeding	70 acres; 36 occurrence points	19
<i>Rana draytonii</i>	California red-legged frog	Upland	—	16,362
		Breeding	0.4 acre; 1 occurrence point	89

There are 26 other special-status wildlife species that are not covered under the Draft Fort Ord HCP that are known or have a moderate or high likelihood to occur within the Plan Area (please refer to **Appendix B**, Table B-1, for legal status, habitat, and likelihood to occur). These species include:

- Pallid bat (*Antrozous pallidus*),
- California mastiff bat (*Eumops perotis californicus*),
- Hoary bat (*Lasiurus cinereus*),
- Townsend's big eared bat (*Corynorhinus townsendii*),
- Monterey dusky-footed woodrat,
- Salinas harvest mouse (*Reithrodontomys megalotis distichlis*),
- Monterey ornate shrew,
- American badger,
- Cooper's hawk (*Accipiter cooperii*),
- Tricolored blackbird (*Agelaius tricolor*),
- Golden eagle (*Aquila chrysaetos*),
- Short-eared owl (*Asio flammeus*),
- Burrowing owl (*Athene cunicularia*),
- White-tailed kite (*Elanus leucurus*),
- California horned lark (*Eremophila alpestris actia*),
- Prairie falcon (*Falco mexicanus*),
- Loggerhead shrike (*Lanius ludovicianus*),
- California brown pelican (*Pelecanus occidentalis californicus*),
- Bank swallow,
- Western pond turtle,
- Coast horned lizard,
- Coast Range newt (*Taricha torosa torosa*),
- Two-striped garter snake (*Thamnophis hammondi*),
- Western bumble bee (*Bombus occidentalis*),
- Northern California legless lizard, and
- California linderiella.

In addition, raptors and their nests are protected under CFG Code and the MBTA. While the life histories of these species vary, overlapping nesting (approximately February through August, with peak activity May through July) and foraging similarities allow for their concurrent discussion. Most raptors are breeding residents throughout most of the wooded portions of the State. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges. Various species of raptors (such as red-tailed hawk, red-shouldered hawk [*Buteo lineatus*], great horned owl, American kestrel [*Falco sparverius*], and turkey vulture [*Cathartes aura*]) have a potential to nest within the Plan Area, which includes individuals or small clusters of cypress, Monterey pine, coast live oak, and eucalyptus trees.

The remaining 20 species (species with the potential to occur not discussed above) were identified as having a low or unlikely potential to occur within the Plan Area and are not described further in this EIS/EIR.

3.4.8 Special-Status Plant Species

A total of 61 special-status plant species are known or have the potential to occur in the Plan Area. Please refer to **Appendix B**, Table B-1, for a summary of legal status, habitat, and likelihood for occurrence within the Plan Area for each of these special-status species.

Of these 61 special-status plant species, four would be covered under the Draft Fort Ord HCP. These HCP species include:

- Monterey spineflower,
- Sand gilia, and
- Seaside bird's beak,
- Yadon's piperia

Chapter 2, *Environmental Setting*, of the Draft Fort Ord HCP provides detailed descriptions of these species. **Appendix A** of the Draft HCP includes the occurrence maps for these species within the Plan Area. **Table 3.4-4** provides a summary of the acreages of known or potential habitat for these species.

Table 3.4-4. HCP Plant Species Occurrences

Plant Species		Density of Occurrence (acres)			
Scientific Name	Common Name	High	Medium	Low	Total
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>	sand gilia	337	1,503	7,248	9,088
<i>Piperia yadonii</i>	Yadon's piperia ^a	-	-	2,420	2,420
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	1,157	4,149	7,672	12,978
<i>Cordylanthus rigidus</i> var. <i>littoralis</i>	Seaside bird's beak	160	353	6,336	6,849

^a There are about 1,511 individual known occurrences of Yadon's piperia in the Plan Area.

There are 24 other special-status plant species that are not covered under the Draft Fort Ord HCP that are known to occur within the Plan Area (please refer to **Appendix B**, Table B-1, for legal status, habitat, and likelihood to occur). These species include:

- Robust spineflower,
- Fort Ord spineflower (*Chorizanthe minutiflora*),
- Contra Costa goldfields,
- Coast wallflower,
- Point Reyes horkelia (*Horkelia marinensis*),
- Eastwood's ericameria,
- Hooker's manzanita,
- Toro manzanita,
- Sandmat manzanita,
- Monterey ceanothus,
- Oregon meconella (*Meconella oregana*),
- Vernal pool bent grass (*Agrostis lacuna-vernalis*),
- Hickman's onion,
- Pajaro manzanita (*Arctostaphylos pajaroensis*),
- Pink Johnny-nip (*Castilleja ambigua* var. *insalutata*),
- Congdon's tarplant,
- Yadon's wallflower (*Erysimum menziesii* ssp. *yadonii*),
- Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*),
- Legenere (*Legenere limosa*),
- Marsh microseris (*Microseris paludosa*),
- Northern curly-leaved monardella (*Monardella sinuata* ssp. *nigrescens*),
- Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*),
- Santa Cruz clover (*Trifolium buckwestiorum*), and
- Pacific Grove clover (*Trifolium polyodon*).

The remaining 33 species (species with the potential to occur not discussed above) were identified as having a low or unlikely potential to occur within the Plan Area and are not described further in this EIS/EIR.

3.4.9 Sensitive Habitats

Several sensitive habitats are known or have the potential to occur within the Plan Area, including:

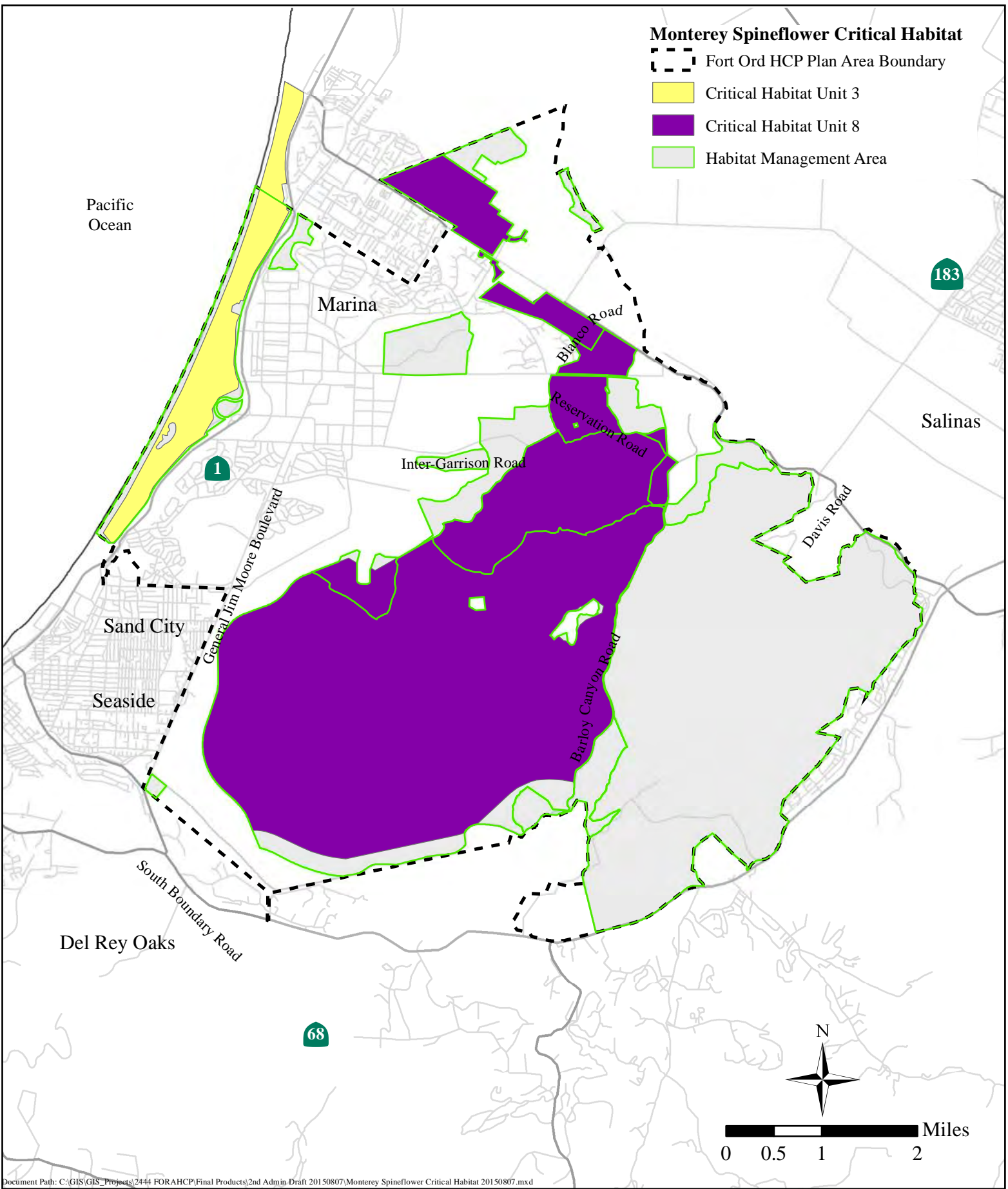
- Coastal strand and dune (987 acres),
- Maritime chaparral (12,349 acres),
- Riparian (191 acres), and
- Wetlands and open water (127 acres).

Please refer to **Figure 3.4-1** for a general location of these sensitive habitats within the Plan Area.

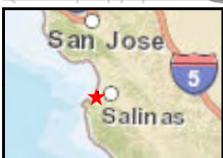
Oak woodlands are considered important natural communities because they provide a variety of ecological, aesthetic, and economical values. The extent of oak woodland in California has declined due to agricultural conversion, urban development, fuelwood harvesting, and grazing activities. Coast live oak woodland is not considered a sensitive habitat by CDFW (CDFW, 2010); however, as a native tree and habitat, coast live oak trees and woodland are typically protected under local tree removal ordinances and impacts are usually addressed and mitigated under CEQA.

Critical Habitat Designations within the Plan Area

Approximately 10,160 acres of the Plan Area are within areas designated as critical habitat for Monterey spineflower (73 FR 1525) (**Figure 3.4-2**). Monterey spineflower critical habitat is located within the FONM, FODSP, FONR, East Garrison North, East Garrison South, Habitat Corridor, and Range 45 HMAs. Additionally, there are approximately 174 acres of designated critical habitat for the snowy plover within the FODSP HMA (**Figure 3.4-3**) (77 FR 36728).



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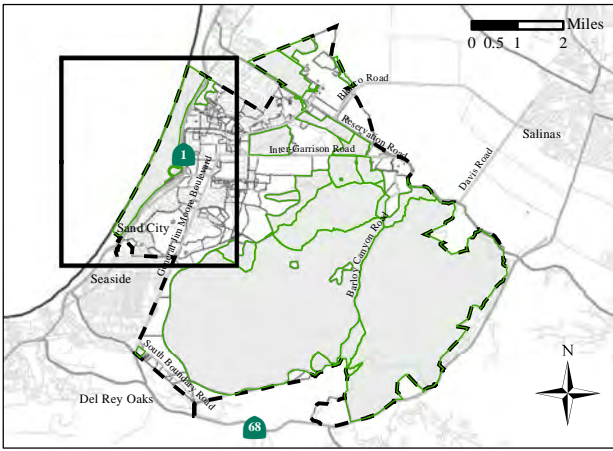
Title: **Monterey Spineflower Critical Habitat**
 File: MSF Critical Habitat.pdf

Date: 8/7/2015
 Scale: 1 in = 1 mile
 Project: 2444







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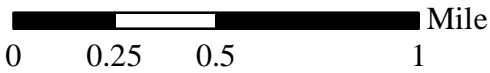
Figure
3.4-2



Western Snowy Plover

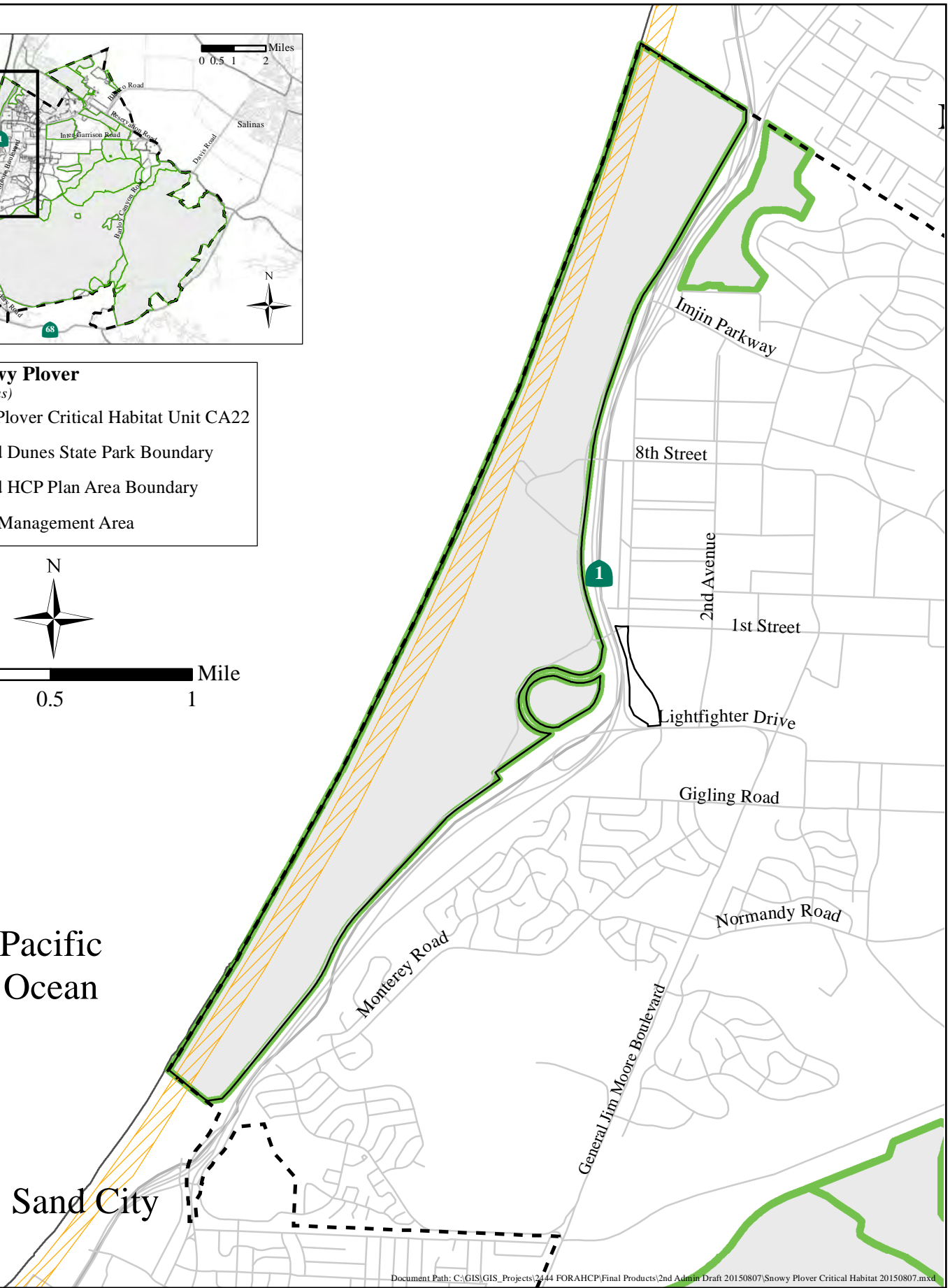
(*Charadrius nivosus*)

-  Snowy Plover Critical Habitat Unit CA22
-  Fort Ord Dunes State Park Boundary
-  Fort Ord HCP Plan Area Boundary
-  Habitat Management Area

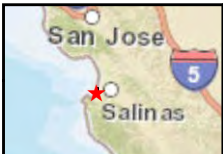


Pacific Ocean

Sand City



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Title: **Snowy Plover Critical Habitat**
 File: SnowyPlover.pdf

Date: 8/7/2015
 Scale: 1 in = 0.5 mile
 Project: 2444



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Figure
3.4-3

3.5. CLIMATE CHANGE

3.5.1. Introduction

This section provides a brief overview of regulatory framework and overview of climate change and the generation of greenhouse gases (GHGs). Federal, State, and local guidelines and regulations are summarized, including existing NEPA and CEQA guidance.

3.5.2. Regulatory Framework

3.5.2.1. Federal

Executive Order 13514

EO 13514 is focused on reducing GHGs internally in federal agency missions, programs, and operations. In addition, the executive order directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. U.S. EPA*, 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the FCAA and that the U.S. EPA has the authority to regulate GHG. The court held that the U.S. EPA Administrator must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. EPA's "Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles," which was published on September 15, 2009. On May 7, 2010 the final "Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards" was published in the Federal Register.

U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations. These steps were outlined by President Obama in a Presidential Memorandum on May 21, 2010.

The final combined U.S. EPA and NHTSA standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile (the equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO₂ level solely through fuel economy improvements). Together, these standards will cut GHG emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). On August 28, 2012, U.S. EPA and NHTSA issued their joint rule to extend this national program of coordinated GHG and fuel economy standards to model years 2017 through 2025 passenger vehicles.

3.5.2.2. State

Assembly Bill 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the ARB to develop and adopt the nation's first GHG emission standards for automobiles. These standards are also known as Pavley I. The California Legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a reduction in the state's water supply; an increase in air pollution caused by higher temperatures; harm to agriculture; an increase in wildfires; damage to the coastline; and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the FCAA, to allow the State to require reduced tailpipe emissions of CO₂. In late 2007, the U.S. EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against the U.S. EPA related to this denial.

In January 2009, President Obama instructed the U.S. EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars and trucks. In June 2009, the U.S. EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

In 2009, President Obama announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the US. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. When the national program takes effect, California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with state requirements. California is committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from the 2020 model year vehicles.

Executive Order No. S-3-05

EO S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The EO directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and state legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the EO, the secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include CO₂, CH₄, N₂O, HFCs, PFCs, NF₃, and SF₆. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that were phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations

cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions (ARB, 2018c).

Climate Change Scoping Plan

In October 2008, ARB published its *Climate Change Proposed Scoping Plan*, which is the State's plan to achieve GHG reductions in California required by AB 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementation of energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

The Scoping Plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. With regard to land use planning, the Scoping Plan expects approximately 5.0 MMT CO_{2e} will be achieved associated with implementation of Senate Bill 375, which is discussed further below.

The initial Scoping Plan was first approved by ARB on December 11, 2008, and is updated every five years. The first update of the Scoping Plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. The most recent update released by ARB is the *2017 Climate Change Scoping Plan*, which was released in November 2017 (ARB, 2017b). The *2017 Climate Change Scoping Plan* incorporates strategies for achieving the 2030 GHG-reduction target established in SB 32 and EO B-30-15.

Senate Bill 1078 and Governor's Order S-14-08 (California Renewables Portfolio Standards)

SB 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This SB will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed EO S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. EO S-14-08 was later superseded by EO S-21-09 on September 15, 2009. EO S-21-09 directed the ARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. Statute SB X1-2 superseded this EO in 2011, which obligated all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020.

ARB is required by current law, AB 32 of 2006, to regulate sources of GHGs to meet a state goal of reducing GHG emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The CEC and California Public Utilities Commission (CPUC) serve in advisory roles to help ARB develop the regulations to administer the 33 percent by 2020 requirement. ARB is also authorized to increase the target and accelerate and expand the time frame.

Mandatory Reporting of Greenhouse Gas Emissions

The California Global Warming Solutions Act (AB 32, 2006) requires the reporting of GHGs by major sources to the ARB. Major sources required to report GHG emissions include industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

Cap-and-Trade Regulation

The cap-and-trade regulation is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013, and apply to large electric power plants and large industrial plants. In 2015, fuel distributors, including distributors of heating and transportation fuels, also became subject to the cap-and-trade rules. At that stage, the program will encompass around 360 businesses throughout California and nearly 85 percent of the state's total GHG emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions and are free to buy and sell allowances on the open market. California held its first auction of GHG allowances on November 14, 2012. California's GHG cap-and-trade system is projected to reduce GHG emissions to 1990 levels by the year 2020 and would achieve an approximate 80 percent reduction from 1990 levels by 2050.

Senate Bill 32

SB 32 was signed by Governor Brown on September 8, 2016. SB 32 effectively extends California's GHG emission-reduction goals from year 2020 to year 2030. This new emission-reduction target of 40 percent below 1990 levels by 2030 is intended to promote further GHG-reductions in support of the State's ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32 also directs the ARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target.

Senate Bill 375

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will address land use allocation in that MPOs regional transportation plan. ARB, in consultation with MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, funding for transportation projects may be withheld.

California Building Code

The CBC contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every three years by the BSC. In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Green Building Standards

In essence, green buildings standards are indistinguishable from any other building standards. Both standards are contained in the CBC and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction of GHG emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, ARB identified

energy use as the second largest contributor to California’s GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, ARB estimated that green building standards would reduce GHG emissions by approximately 26 MMT of CO_{2e} by 2020. Most recently, the CEC adopted new building energy efficiency standards that amends the building code to require improvements in building insulation, use of energy-efficient lighting, and the incorporation of renewable energy technology (e.g., solar photovoltaic systems) for newly constructed residential dwellings. These standards are anticipated to reduce energy usage by approximately 50 percent for residential buildings and 30 percent for nonresidential buildings (CEC, 2018c).

Senate Bill 97

SB 97 was enacted in 2007. SB 97 required the Office of Planning and Research to develop, and the California Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.
- When a project’s GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions.
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change.
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria.
- CEQA mandates analysis of a proposed project’s potential energy use (including transportation-related energy), sources of energy supply and ways to reduce energy demand, including through the use of efficient transportation alternatives.

As part of the administrative rulemaking process, the California Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

Short-Lived Climate Pollutant Reduction Strategy

In March 2017, ARB adopted the “Short-Lived Climate Pollutant Reduction Strategy” (SLCP Strategy) establishing a path to decrease GHG emissions and displace fossil-based natural gas use. Strategies include avoiding landfill methane emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; and recovering methane from wastewater treatment facilities, and manure methane at dairies, and using the methane as a renewable source of natural gas to fuel vehicles or generate electricity. The SLCP Strategy also identifies steps to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use. Lastly, the SLCP Strategy also identifies measures that can reduce HFC emissions at national and international levels, in addition to State-level action that includes an incentive program to encourage the use of low-GWP refrigerants, and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment (ARB, 2017a).

3.5.2.3. Local

Although the MBARD does not regulate greenhouse gas emissions, they support the efforts of State and local agencies in their efforts to implement State regulatory programs described above.

The Monterey Bay area’s metropolitan planning organization is the Association of Monterey Bay Area Governments (AMBAG) and they completed their regional blueprint plan called “Envisioning the Monterey Bay Area: A Blueprint for Sustainable Growth and Smart Infrastructure” in 2011. The regional blueprint lays the foundation for the Metropolitan Transportation Plan/Sustainable Communities Strategy, which was approved by AMBAG in June 2014.

Local agencies in the region are already in the process of updating their General Plans, policies and ordinances to address greenhouse gas emissions, and climate change. In addition, cities are beginning to prepare and adopt green building ordinances, energy efficiency programs, and sustainable communities plans, and to seek funding for construction of alternative transportation and mixed use projects that will improve the sustainability of land use/transportation decisions.

3.5.3. Greenhouse Gas Emissions

In 2010, global anthropogenic emissions of GHGs totaled 49 (\pm 4.5) gigatons CO₂e per year according to the Intergovernmental Panel on Climate Change (IPCC) (IPCC 2014a). **Figure 3.5-1** shows the following:

- (a) Global annual emissions of anthropogenic GHGs from 1970 to 2004,
- (b) Share of different anthropogenic GHGs in total emissions in 2004 in terms of CO₂e, and
- (c) Share of different sectors in total anthropogenic GHG emissions in 2004 in terms of CO₂e. (Forestry includes deforestation).

Over 80% of the GHG emissions in the United States are comprised of CO₂ emissions from energy related fossil fuel combustion. In 2004, California emitted 492.7 million metric tons (MT) of CO₂e, or about 7% of the US emissions. California's emissions decreased by 1.6 percent from 466.3 million MTCO₂e in 2000 to 458.7 million MTCO₂e in 2012, with a maximum of 492.7 MTCO₂e in 2004. This large number is due primarily to the sheer size of California. Compared to other States, California has one of the lowest per capita GHG emission rates in the country. This is due to California's higher energy efficiency standards, its temperate climate, and the fact that it relies on substantial out-of-State energy generation.

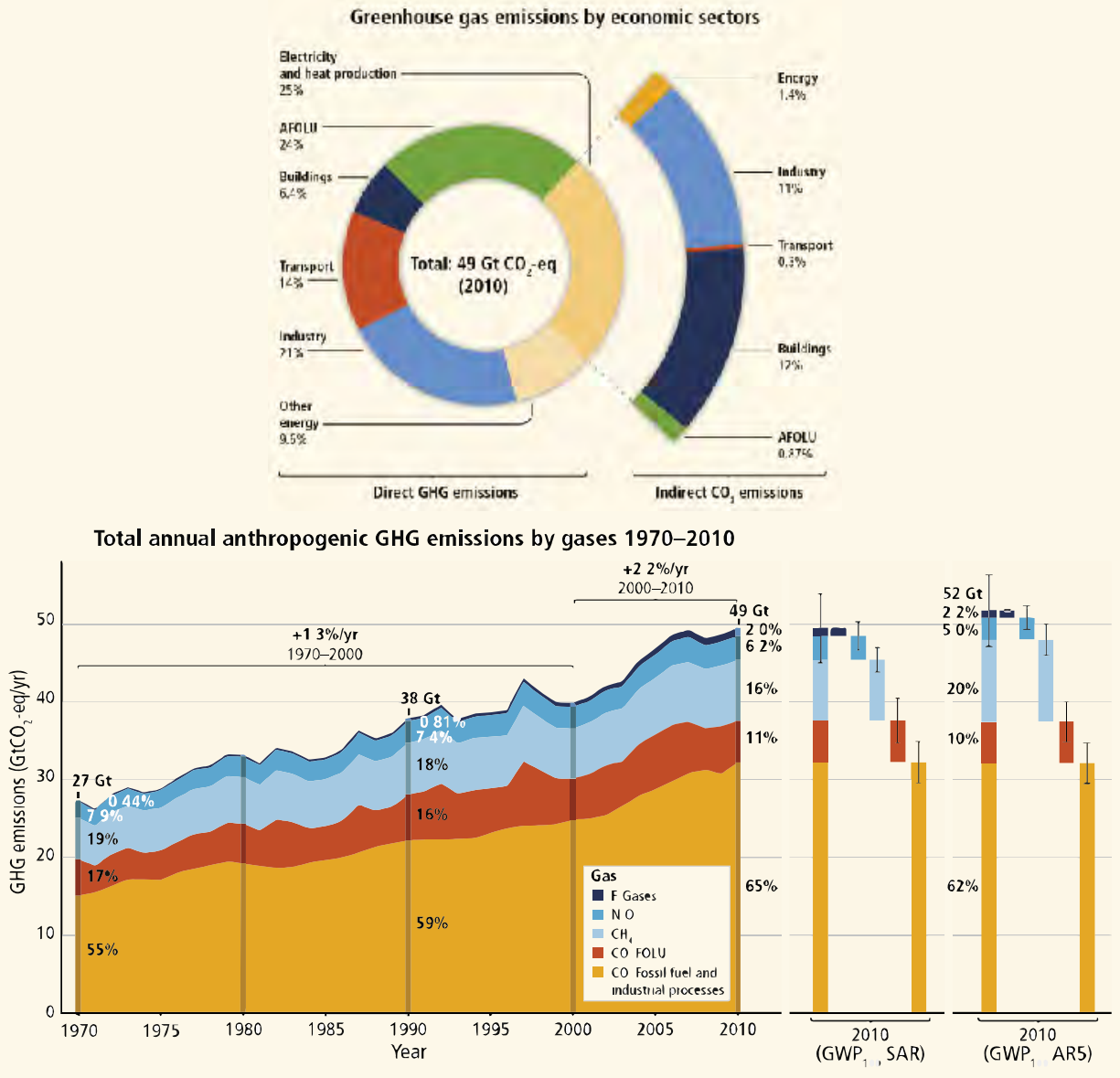
Figure 3.5-2 below inventories GHG emissions in California according to sector for the years 2000 through 2012. The emissions estimates are statewide estimates that rely primarily on State, regional or national data sources, rather than individual facility-specific emissions.¹ It includes estimates for carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). As indicated, the transportation sector is the largest single source of GHGs within California, accounting for approximately 36 percent of statewide GHG emissions in 2012.

3.5.4. Natural and Working Lands

Three-quarters of California's landmass comprises biologically diverse landscapes such as forests, woodlands, shrublands, grasslands and wetlands. Within CARB's Scoping Plan, this sector is referred to as "Natural and Working Lands." This sector provides a key role in California's ability to prepare for and adapt to the impacts of climate change and in meeting California's long-term climate objectives.

¹ Greenhouse gas inventories involve a wide range of human activities. Estimating the amount of greenhouse gases generated by these activities requires using a multiplicity of data sources and a diverse set of methodologies.

Figure 3.5-1. Global Anthropogenic GHG Emissions

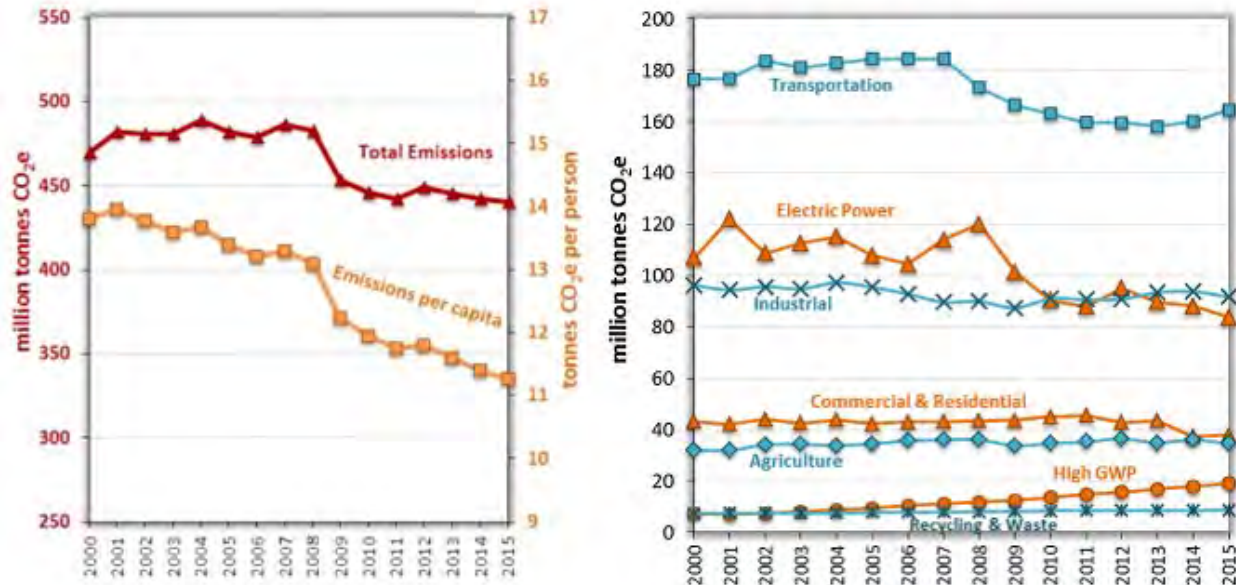


(Source: IPCC, 2014b)

Natural and working lands act as both a source of GHG emissions, as well as, a carbon sink which removes CO₂ from the atmosphere. For example, emissions from wildfire, pest, and disease, are all natural ecosystem processes which can result in increased CO₂ emissions. Of these processes, wildfires are generally considered to be the largest potential source of CO₂ emissions. Within the last decade, forest fires accounted for roughly ten times more biomass loss than losses attributable to harvesting. Emissions associated with natural and working lands can fluctuate from year to year.

To minimize CO₂ loss from wildfires and other processes, the effective management of natural and working lands is a critical component of the Climate Change Scoping Plan and the State’s ability to reach long-term climate goals. Some management actions, such as prescribed burns, may result in temporary, short-term reductions in carbon sequestration, but are critical for maintaining the overall health and sustainability of the forest and for providing more efficient carbon sequestration (CARB, 2014)

Figure 3.5-2. California GHG Emissions 2000-2015



(Source: CARB, 2017b)

3.5.5. Climate Change Effects & Impacts

The following is a brief overview of GHG emissions and their role in affecting the Earth's surface temperature. Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, absorption within the atmosphere of this infrared radiation that otherwise would have escaped the Earth's atmosphere results in atmospheric warming. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are CO₂, CH₄, O₃, water vapor, N₂O, and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CEC, 2006). A byproduct of fossil fuel combustion is CO₂. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are of regional and local concern, respectively. CO₂e are a measurement used to account for various GHGs that have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a greenhouse gas, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Climate change has the potential to affect numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;

- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events (IPCC, 2001).

There are many secondary effects that are projected to result from climate change, including global rise in sea level, extreme weather, diminished water supplies, increased frequency and intensity of wildfires, impacts to agriculture, changes in disease vectors, coral bleaching, increased flooding hazards and coastal erosion, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

According to the *2009 California Climate Adaptation Strategy* (CNRA, 2009), the impacts of global warming in California have the potential to include, but are not limited to, the areas discussed below.

3.5.5.1. Public Health

Climate change is expected to lead to an increase in ambient (i.e., outdoor) average air temperature, with greater increases expected in summer than in winter months. Larger temperature increases are anticipated in inland communities as compared to the California coast. The potential health impacts from sustained and significantly higher than average temperatures include heat stroke, heat exhaustion, and the exacerbation of existing medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Numerous studies have indicated that there are generally more deaths during periods of sustained higher temperatures, and these are due to cardiovascular causes and other chronic diseases. The elderly, infants, and socially isolated people with pre-existing illnesses who lack access to air conditioning or cooling spaces are among the most at risk during heat waves (CNRA, 2009).

3.5.5.2. Floods and Droughts

The impacts of flooding can be significant. Results may include population displacement, severe psychosocial stress with resulting mental health impacts, exacerbation of pre-existing chronic conditions, and infectious disease (CNRA, 2009). Additionally, impacts can range from a loss of personal belongings, and the emotional ramifications from such loss, to direct injury and/or mortality.

Drinking water contamination outbreaks in the US are associated with extreme precipitation events (CNRA, 2009). Floodwaters may contain household, industrial, and agricultural chemicals as well as sewage and animal waste. Flooding and heavy rainfall events can wash pathogens and chemicals from contaminated soils, farms, and streets into drinking water supplies (CNRA, 2009). Flooding may also overload storm and wastewater systems, or flood septic systems, also leading to possible contamination of drinking water systems (CNRA, 2009). Runoff from rainfall is also associated with coastal contamination that can lead to contamination of shellfish and contribute to food-borne illness.

Drought impacts develop more slowly over time. Risks to public health that Californians may face from drought include impacts on water supply and quality, food production (both agricultural and commercial fisheries), and risks of waterborne illness. As surface water supplies are reduced as a result of drought conditions, the amount of groundwater pumping is expected to increase to make up for the water shortfall. The increase in groundwater pumping has the potential to lower the water tables and cause land subsidence (CNRA, 2009). Communities that utilize well water will be adversely affected by drops in water tables or through changes in water quality. Groundwater supplies have higher levels of total dissolved solids compared to surface waters. This introduces a set of effects for consumers, such as repair and maintenance costs associated with mineral deposits in water heaters and other plumbing fixtures, and on public water system infrastructure designed for lower salinity surface water supplies. Drought may also lead to increased concentration of contaminants in drinking water supplies (CNRA, 2009).

3.5.5.3. Water Resources

The State's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century—especially increases in hydrologic variability—will likely intensify in this century. We can expect to experience more frequent and larger floods and deeper droughts (CNRA, 2009).

3.5.5.4. Agriculture

Increased GHG emissions could cause widespread changes to the agriculture industry, reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less than optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts. In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

3.5.5.5. Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, wildfire occurrence statewide could increase from 57 percent to 169 percent by 2085 (CNRA, 2009). However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State.

3.5.5.6. Fishing

Studies found that as a result of changes in ocean conditions, the distribution and abundance of major fish stocks will change substantially. Impacts to fisheries related to El Niño/Southern Oscillation illustrate how climate directly affects marine fisheries on a short-term basis. Higher sea surface temperatures in 1997–1998 during El Niño had a great impact on market squid, California's largest fishery by volume. The California Regional Assessment Group reports that landings fell to less than 1,000 MT in that season, down from 110,000 tons in the 1996–1997 season. Other unusual events, such as poor salmon returns, a series of plankton blooms, and seabird die-offs, also occurred.

3.5.5.7. Sea Level Rise

Recent projections estimate possible sea level rise of approximately 14 inches by 2050 and a high value of approximately 55 inches by 2100. As sea level rises, the flood risks will be exacerbated in coastal areas as higher storm surges cause greater tidal damage and flooding, and reach into inland areas that have been historically untouched by sea waters. Increased flooding and erosion have the potential to threaten coastal structures and land uses. A recent study found that erosion rates along the southern Monterey Bay shoreline between Moss Landing and Wharf II in Monterey are the highest in the State of California. Although this shoreline is not heavily developed, eight oceanfront facilities are at a high risk from erosion over the next fifty years (MBNMS, 2015). Sea-level rise also increases the likelihood of saline intrusion into drinking water sources and agricultural water supplies.

3.6. CULTURAL RESOURCES

3.6.1. Introduction

This section describes the cultural resources located in and around the former Fort Ord, including historical, archaeological, paleontological, unique geologic features, and tribal resources. This discussion is based, in part, on information provided in Volume 4 of the Reuse Plan. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS and Volume 4 of the Reuse Plan and its supporting technical appendices and other relevant documents as referenced. This analysis also uses information from past archaeological and architectural inventory studies that have been conducted at the former Fort Ord, as well as archaeological research design and a historic building inventory report prepared by the Army.

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Significant cultural resources may be historical resources (i.e., cultural resources eligible for inclusion on the California Register of Historical Resources [CRHR] or National Register of Historic Places [NRHP]) or unique archaeological resource as defined in CEQA and NEPA. Cultural resources encompass paleontological, archaeological, and historic resources as briefly summarized below:

- Paleontological Resources: Paleontology is the study of plant and animal fossils. Generally, paleontological resources are more than 10,000 years old.
- Archaeological Resources: Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are associated with indigenous cultures and historic-era settlement and are less than 10,000 years old.
- Historic Resources: Historic resources (extant buildings and structures) are associated with the more recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the state's history and are usually less than 200 years old.
- Tribal Cultural Resources: Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources (PRC Section 21074).

3.6.2. Regulatory Framework

3.6.2.1. Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA), first adopted in 1966, has become the foundation and framework for historic preservation in the United States. The NHPA requires federal agencies to take into account the effects of their undertakings on historic properties; and makes the heads of all federal agencies responsible for the preservation of historic properties owned or controlled by their agencies. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP. Undertakings include federally funded, licensed, or permitted projects.

The NHPA established the NRHP, the official record of historical resources. Districts, sites, buildings, structures, and objects are eligible for listing in the NRHP. Nominations are listed if they are significant in American history, architecture, archaeology, engineering, and culture. The NRHP is administered by the National Park Service (NPS). A property must have both historical significance and integrity to be eligible for listing in the NRHP. To be significant, a property must be "associated with an important historic context." The NRHP identifies four possible context types, of which at least one must be applicable to the property at the national, state, or local level. A property is considered significant if it meets the NRHP listing criteria, as stated below:

- a. The property is associated with events that have made a significant contribution to the broad patterns of our history; or
- b. The property is associated with the lives of persons significant in our past; or

- c. The property embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- d. The property has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

A property can be eligible for listing in the NRHP under these criteria as being significant at a national, state, regional, or local level depending on the historic context in which it is being evaluated. For a property to qualify under one or more of these Criteria for Evaluation, it must also retain “historic integrity of those features necessary to convey its significance.” While a property’s significance relates to its role within a specific historic context, its integrity refers to the “property’s physical features and how they relate to its significance.” To determine if a property retains the physical characteristics corresponding to its historic context, the National Register has identified seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Ordinarily, properties that have achieved significance within the past 50 years are not considered eligible for listing in the NRHP. However, such properties will be considered eligible if a property that achieved significance within the past 50 years is of exceptional importance.

Section 106 of the NHPA and its implementing regulations (36 CFR 800) require federal agencies, or those they fund or permit, to consider the effects of their actions on properties that may be eligible for listing or are listed in the NRHP. The Section 106 review process involves a four-step procedure, as outlined below:

- 1) Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- 2) Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- 3) Assess adverse effects by applying the criteria of adverse effect to historic properties (resources that are eligible for inclusion in the NRHP).

Assess adverse effects by applying the criteria of adverse effect to historic properties (resources that are eligible for inclusion in the NRHP).

The American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act (AIRFA) of 1978 states “...henceforth it shall be the policy of the United States to protect and preserve for American Indians their inherent right and freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.” Under the act, Federal agencies should consult with tribes when projects, policy, or procedure may affect their religious practices.

3.6.2.2. State

California Register of Historical Resources

The CRHR is “an authoritative listing and guide to be used by state and local agencies, private groups and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The CRHR includes buildings, sites, structures, objects, and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. The CRHR is maintained by State Parks’ Office of Historic Preservation (OHP).

The criteria for eligibility to the CRHR are based on NRHP criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for or listed in the NRHP. To be eligible for the CRHR, a prehistoric or historic-period resource must be significant at the local or State level under one or more of the following criteria:

- a. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- b. Is associated with the lives of persons important in our past;
- c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- d. Has yielded, or may be likely to yield, information important in prehistory or history (CEQA Guidelines Section 15064.5 [a][3]).

For a resource to be eligible for the CRHR, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. The seven aspects of integrity are: location, design, setting, materials, workmanship, feeling, and association. A resource that does not retain sufficient integrity to meet the NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

California’s list of special considerations is shorter than the criteria considerations for the NRHP listed above. It includes some allowances for moved buildings, structures, or objects, as well as requirements for proving the significance of resources that are less than 50 years old and discussion of the eligibility of reconstructed buildings. Additionally, unlike the criteria considerations for the NRHP, cemeteries do not come under the scrutiny of special considerations for the CRHR. In addition to separate evaluations for eligibility for the CRHR, the State automatically lists in the CRHR resources that are listed or formally determined eligible for the NRHP.

California Public Resources Code

Several sections of the California PRC protect cultural resources located on public land. Under PRC Section 5097.5, no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site (including fossilized footprints), inscriptions made by human agency, rock art, or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency that has jurisdiction over the lands. Violation of this section is a misdemeanor.

PRC Section 5097.98 states that if Native American human remains are identified within a project area, the landowner must work with the Native American Most Likely Descendant as identified by the NAHC to develop a plan for the treatment or disposition of the human remains and any items associated with Native American burials with appropriate dignity. These procedures are also addressed in Section 15064.5 of the State CEQA Guidelines. California Health and Safety Code Section 7050.5 prohibits disinterring, disturbing, or removing human remains from a location other than a dedicated cemetery. Section 30244 of the PRC requires reasonable mitigation for impacts on paleontological and archaeological resources that occur as a result of development on public lands.

California Health and Safety Code

California Health and Safety Code Section 7050.5 regulates the treatment of human remains. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to his or her authority. If the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact the NAHC by telephone within 24 hours.

California Environmental Quality Act

CEQA requires that public or private projects financed or approved by public agencies be assessed to determine the effects on historical resources. CEQA uses the term “historical resources” to include buildings, sites, structures, objects, or districts that may have historical, pre-historical, architectural, archaeological, cultural, or scientific importance. A resource is considered historically significant under three circumstances:

- 1) If it is CRHR-listed or determined to be eligible for such listing by the State Historical Resources Commission;
- 2) If it is included in a local register of historical resources (unless the preponderance of evidence demonstrates that it is not historically or culturally significant); or
- 3) If it meets at least one of the criteria for listing on the CRHR (CCR Section 15064.5(a)).

Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR and, therefore, represent significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)). CEQA further identifies that the fact that a resource is not listed in, or determined to be eligible for listing, in the California Register of Historic Resources (or local register) or identified in an historical resource survey does not preclude a lead agency from determining that the resource may be a historical resource as defined pursuant to PRC 5020.1(j) or 5024.1 (State CEQA Guidelines, CCR Section 15064.5(a)(3)).

CEQA also provides further guidance regarding the treatment (and evaluation of impacts) of cultural and historic resources. Specifically, State CEQA Guidelines CCR Section 15064.5(b)(3) identifies that “projects that follow the Secretary of the Interior’s Standards for the Treatment of Historic Property with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.” CEQA also requires the lead agency to identify feasible measures to mitigated significant adverse changes in the significance of a historical resource (State CEQA Guidelines, CCR Section 15064.5(b)(4)). CEQA further requires that if a project would affect a state-owned historical resource, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in PRC Section 5024.5.

Assembly Bill 52

In September of 2014, the California Legislature passed AB 52, which added provisions to the PRC concerning the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze a project’s impacts on “tribal cultural resources” separately from archaeological resources (PRC Section 21074; 21083.09). The bill defines “tribal cultural resources” in a new section of the PRC, Section 21074. AB 52 also requires lead agencies to engage in additional consultation procedures with the respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3). Finally, AB 52 required the Office of Planning and Research to update Appendix G of the CEQA Guidelines to provide sample questions regarding impacts to tribal cultural resources, which was approved on September 27, 2016 (PRC Section 21083.9). AB 52’s provisions only apply to projects that have a notice of preparation filed on or after July 1, 2015.

Under AB 52, a project that may cause a substantial adverse change in the significance of a tribal cultural resource is defined as a project that may have a significant effect on the environment. “Tribal cultural resources” are defined as either (1) “sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe” that are included in the state register of historical resources or a local register of historical resources, or that are determined to be eligible for inclusion in the state register; or (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the state register. Where a project may have a significant impact on a tribal cultural resource, the lead agency’s environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact.

3.6.2.3. Fort Ord Reuse Plan

According to the Reuse Plan, development within the former Fort Ord has the potential to adversely impact cultural resources. In order to ensure that potential impacts are minimized, the Reuse Plan identifies a number of policies to protect cultural resources within each of the affected jurisdictions. The Reuse Plan is the overarching planning document affecting the redevelopment of the former Fort Ord, and, therefore, a detailed discussion of each of the municipalities’ general plans is not provided (i.e., County of Monterey, City of Marina, City of Seaside, City of Del Rey Oaks, and City

of Monterey). All general plans for affected jurisdictions must be consistent with the Reuse Plan in accordance with Chapter 8 of the FORA Master Resolution.

3.6.3. Regional Setting

Archaeological evidence and radiocarbon dates establish human occupation of the California Coast dating back at least 10,000 years. Evidence from coastal areas of the County suggests settlement of this area by at least 5,000 B.C., and possibly earlier. Proto-Esselen foragers speaking Hokan represented the Sur Pattern¹, dating to 5,000 B.C. They were replaced by proto-Coastanoan peoples in the Monterey Pattern, which began about 500 B.C. and lasted up to the Historic Period.

The former Fort Ord is located within lands historically occupied by the Rumsen Indians who belonged to a branch of the Coastanoan, or Ohlone, language family. Their closest village center to former Fort Ord was located at present day San Carlos. Rumsen/Ohlone traditional lifeways were largely destroyed when Euro-Americans began colonizing their territory in the 1770s. European contact began with the arrival of Spanish explorers in the 16th Century. In 1770, the Portola expedition established the first mission and the Royal Presidio in Monterey. In 1771, the Mission was moved to the Carmel Valley adjacent to arable land. By 1778, most of the remaining Rumsen and Esslen Indians in Carmel and Monterey were baptized and farming church lands, marking the beginning of the disintegration of Native American traditional lifeways in this area. By the turn of the century, vestigial Indian communities disappeared, and by 1935, the Ohlone language was extinct.

The former Fort Ord was created in 1917 from land designated as City of Monterey Tract No. 1 and several ranches. Originally named Gigling Reservation, the installation was renamed Camp Ord in 1933 after Major General Edward Ord, and later became known as Fort Ord. The former Fort Ord became an active military installation for the housing and training of Army troops just before World War II. Many facilities were built beginning in 1940 using funds from the Work Progress Administration. The former Fort Ord was used as an important staging area during World War II and as a training facility during the Korean and Vietnam wars.

3.6.3.1. Archaeological, Tribal, and Paleontological Resources

Archaeological Resources

Three archaeological surveys were previously conducted within the boundaries of the former Fort Ord (USACE, 1993). The surveys found no archaeological resource potential in the active beach strand, low potential in the active dunes, and medium potential in the stabilized dunes. The dissected uplands were found to have a high potential for prehistoric archaeological resources along the streams that connect with the Salinas River floodplain. Areas of high archaeological sensitivity have been identified and a cultural resource survey was carried out in high and low probability areas, which found that there was little potential for cultural deposits or information at three identified sites and four isolated find localities (Waite, 1995). The areas of greatest archaeological sensitivity at Fort Ord include all terraces and benches adjacent to the Salinas River and El Toro Creek, the peripheries of the west cycle lakes, and lands adjacent to the streams that flow through Pilcaritos and Impossible Canyons. All other lands in the area were determined to have low to medium potential for possessing archaeological resources (EMC and EDAW, 1997).

Tribal Cultural Resources

Tribal cultural resources, as defined by PRC Section 21074, are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
- a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in PRC Section 5024.2(c). In applying the criteria set forth in PRC Section

¹ Pattern refers to geographically and chronologically extended cultural unit within a region, characterized by similar technology, economy, and burial practices.

5024.1(c) for the purposes of this paragraph, the lead agency shall consider the significance of the resources to a California Native American tribe.

Paleontological Resources

Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and those that add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally. They include fossil remains of large to very small aquatic and terrestrial vertebrates, remains of plants and animals previously not represented in certain portions of the stratigraphy, and assemblages of fossils that might aid stratigraphic correlations, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, and the relationships of aquatic and terrestrial species.

According to the Monterey County General Plan EIR (ICF, 2010), most of the fossils found in the County are of marine life forms and form a record of the region's geologic history of advancing and retreating sea levels. Because of the marine origin of these deposits, they lack the large, terrestrial fossils found in other regions such as the dinosaur fossils of the southwestern U.S. Most of County's fossils are microorganisms such as foraminifers or diatoms or assemblages of mollusks and barnacles most commonly found in sedimentary rocks ranging from Cretaceous age (138 to 96 million years old) to Pleistocene age (1.6 million to 11 thousand years old).

Based on the Monterey County General Plan EIR (ICF, 2010), fossils are found throughout the county because of the widespread distribution of marine deposits. A review of nearly 700 known fossil localities was conducted by paleontologists in 2001 and 12 fossil sites were identified as having outstanding scientific value. It was determined that, for the most part, the fossils at these 12 sites reflect the type of assemblages found throughout the county (microorganisms or invertebrates); however, each has special characteristics that make them unique or rare, or in some way provide important stratigraphic or historic information.

3.6.3.2. Historic Context

An Inventory Survey of Historic-Period Sites at Fort Ord was prepared to identify historic sites that may be eligible for inclusion in the NRHP. The Army and the California State Historic Preservation Officer (SHPO) concluded that Stilwell Hall, which has since been deconstructed due to coastal erosion, and 35 structures in the East Garrison area were the only former Fort Ord properties eligible for listing on the NRHP (EDAW and EMC, 1996).

3.7. ENERGY

3.7.1. Introduction

This section describes the existing energy use at the Federal, State, and regional level and evaluates the extent to which the Proposed Action and alternatives could result in wasteful consumption of energy resources or conflict with regulations related to energy use. Key sources include: Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced.

3.7.2. Environmental Setting

Energy consumption is analyzed in an EIS/EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during both the production and consumption phases of energy use.

Energy usage is typically quantified using the British thermal unit (Btu). As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity are 123,000 Btus, 1,000 Btus, and 3,400 Btus, respectively. Utility providers measure natural gas usage in therms. One therm is approximately equal to 100,000 Btus.

Electrical energy is expressed in units of kilowatts (kW) and kWh. One kilowatt, a measurement of power (energy used over time), equals one thousand joules per second. A kilowatt-hour is a measurement of energy. If run for one hour, a 1,000 watt (one kW) hair dryer would use one kilowatt-hour of electrical energy. Other measurements of electrical energy include the megawatt (1,000 kW) and the gigawatt (1,000,000 kW).

Total energy usage in California was approximately 7,830 trillion Btus in the year 2016 (the most recent year for which this specific data was available). The breakdown by sector was approximately 17.7 percent for residential uses, 18.9 percent for commercial uses, 23.7 percent for industrial uses, and 39.8 percent for transportation (EIA, 2019).

Existing energy use in California primarily consists of natural gas (2,248.9 trillion Btu in 2016), electricity (797.8 trillion Btu in 2016), and fuel for vehicle trips (1,713 trillion Btu in 2016) (EIA, 2019). Therefore, the remainder of this discussion will focus on the most relevant sources of energy: natural gas, electricity, and gasoline for vehicle trips.

Electricity supply in California involves a complex grid of power plants and transmission lines. In 2014, California produced approximately 75 percent of the electricity it consumed; it imported the remaining 25 percent from 11 western states, Canada, and Mexico. Decreases in hydroelectric generation resulting from lower precipitation in California and the northwest was made up for by an increase in renewable energy generation, specifically utility-scale solar photovoltaic, solar thermal, and wind generation.

3.7.2.1. Electricity

The production of electricity requires the consumption or conversion of energy resources: water, wind, oil, gas, coal, solar, geothermal, and nuclear sources. In 2017, 34 percent the State's electricity was generated by natural gas, nine percent by nuclear, 15 percent by large hydroelectric, and four percent by coal. Renewable sources such as photovoltaic systems, biomass power plants, and wind turbines, accounted for 29 percent of California's electricity. Nine percent of California's power comes from unspecified sources (California Energy Commission [CEC], 2017a). The electricity generated is distributed via a network of transmission and distribution lines commonly called the power grid.

In 2017, total system electric generation for California was 292,039 gigawatt hours (GWh), up 0.5 percent from 2016's total generation of 290,567 GWh. California's non-CO₂ emitting electric generation categories (nuclear, large hydroelectric, and renewable generation) accounted for more than 56 percent of total in-State generation for 2017, compared to 50 percent in 2016. California's in-state electric generation was up by four percent to 206,336 GWh compared to 198,227 GWh in 2016 while net imports were down by seven percent or 6,638 GWh to 85,703 GWh. The

overall modest increase observed in California’s total system electric generation for 2017 is consistent with the recently published California Energy Demand 2018 – 2030 Revised Forecast:

“Annual growth from 2016 – 2027 for the CED 2017 Revised forecast averages 1.64 percent, 1.32 percent, and 1.02 percent in the high, mid, and low cases, respectively, compared to 1.02 percent in the CEDU 2016 mid case” (CEC, 2018a).

Factors contributing to the increase in total system electric generation include growth in the number of light duty electric vehicles registered in the State, increased manufacturing electricity consumption, and reductions in savings from energy efficiency programs, this last point suggesting that population growth is the primary driver of increased electricity consumption (CEC, 2018a).

Starting in 2018, all Pacific Gas and Electric Company (PG&E) customers within Monterey, San Benito, and Santa Cruz Counties were automatically enrolled in Monterey Bay Community Power (MBCP). MBCP is a locally-controlled public agency providing carbon-free electricity to residents and businesses. Formed in February 2017, MBCP is a joint powers authority, and is based on a local energy model called community choice energy. MBCP partners with PG&E, which continues to provide billing, power transmission and distribution, customer service, grid maintenance services and natural gas services to Monterey County. MBCP’s standard electricity offering, is carbon free and is classified as 30 percent renewable. Of the electricity provided by MBCP in 2018, 40 percent was hydroelectric, and 30 percent was solar and wind (eligible renewables) (MBCP, 2019).

Electricity usage for differing land uses varies substantially by the type of uses in a building, the type of construction materials used, and the efficiency of the electricity-consuming devices used. Electricity in Monterey County in 2017 was consumed primarily by the non-residential sector (73 percent), the residential sector consuming 27 percent. In 2017, approximately 2,589 GWh of electricity were consumed in Monterey County (CEC, 2017b).

3.7.2.2. Natural Gas

After electricity, natural gas is the most widely used energy source in California. Depending on yearly conditions, 40 to 45% of the total consumed natural gas is burned for electricity generation. California continues to depend upon out-of-state imports for nearly 90 percent of its natural gas supply, approximately 10 percent of California’s natural gas supply came from in-state production (CEC, 2018b). In 2015, approximately 36 percent of the natural gas delivered for consumption in California was for electricity generation, 35 percent for industrial uses, 18 percent for residential uses, 10 percent for commercial uses, and less than one percent for transportation. As with electricity usage, natural gas usage depends on the type of uses in a building, the type of construction materials used, and the efficiency of natural gas-consuming devices. In 2015, the State of California consumed approximately 2.3 trillion cubic feet of natural gas, or 2.36 quads (1015 Btu) (EIA, 2018a and 2018b).

Overall demand for direct-service natural gas in the commercial residential sectors in California is expected to flatten or decrease as a result of overall energy efficiency. Demand for natural gas at power plants for electricity generation is also expected to decrease by one percent by 2025 (as compared to 2013 demand rates). This decrease is a result of increases in renewable power generation (CEC, 2013).

Natural gas is provided to the former Fort Ord by with PG&E. Transmission of gas occurs through two PG&E lines that traverse the installation and serve former Fort Ord and surrounding cities within the Monterey Bay area. The most recent report for natural gas consumption shows that Monterey County consumed 110 million therms in 2017 (CEC, 2017a).

3.7.2.3. Gasoline for Motor Vehicles

Excluding federal offshore areas, California was the third-largest producer of petroleum among the 50 states in 2016, after Texas and North Dakota, and, as of January 2017, third in oil refining capacity, with a combined capacity of almost 2 million barrels per calendar day at the State’s 18 operable refineries. In 2015, California accounted for one-fifth of the nation’s jet fuel consumption (CEC, 2017a).

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the U.S. has steadily increased from about 13.1 miles-per-gallon (mpg) in the mid-1970s to 23.9 mpg in 2015 (U.S. Bureau of Transportation Statistics, 2015). Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That 2007 standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was subsequently revised to apply to cars and light trucks of Model Years 2011 through 2020 (U.S. Department of Energy, 2007). In 2012, the federal government raised the fuel economy standard to 54.5 miles per gallon for cars and light-duty trucks by Model Year 2025.

3.7.3. Regulatory Framework

3.7.3.1. Federal

At the Federal level, energy standards set by the U.S. EPA apply to numerous consumer and commercial products (e.g., the EnergyStar™ program). The U.S. EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the oil crisis of 1973, which increased oil prices due to a shortage of reserves, and sought to ensure all vehicles sold in the U.S. would meet certain fuel economy standards. The Act established the first fuel economy standards for on-road motor vehicles in the U.S. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not subject to fuel economy standards.

3.7.3.2. State

California Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2010. In 2006, California's 20 percent by 2010 RPS goal was codified under SB 107. Under the provisions of SB 107 (signed into law in 2006), investor-owned utilities were required to generate 20 percent of their retail electricity using qualified renewable energy technologies by the end of 2010. In 2008, EO S-14-08 was signed into law and requires that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. As described previously, PG&E's (the electricity provider to the project site) 2015 electricity mix was 30 percent renewable. In October 2015, SB 350 was passed, which codified California's climate and clean energy goals. A key provision of SB 350 for retail sellers and publicly owned utilities, requires them to procure 50 percent of the State's electricity from renewable sources by 2030.

California Building Codes

At the State level, the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years; the 2016 standards became effective January 1, 2017. The 2019 Title 24 updates were adopted May 9, 2018 and will go into effect on January 1, 2020 (BSC, 2018a). Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments (CEC, 2015).

In January 2010, the State of California adopted the CalGreen standards that establish mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality (BSC, 2018b).

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3.8. GEOLOGY AND SOILS

3.8.1. Introduction

This section describes the geology, soils, and seismicity conditions in the vicinity of the former Fort Ord. This discussion is based, in part, on information provided in the FORA Reuse Plan EIR. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced.

3.8.2. Regional Setting

Geologic structure in central California is primarily the result of tectonic events that have occurred during the past 30 million years. It is widely believed that the numerous faults in this area are related to movements along the boundary between the Pacific and North American tectonic plates. The relative motion between these two tectonic plates is taken up largely along the northwest-trending San Andreas Fault system, which defines the regional boundary between the two plates. Changes in sea level and tectonic uplift resulted in a complicated depositional environment that produced the complex geology of the Monterey Bay region. Faulting and folding have deformed and displaced the geologic units in the region, and the granitic basement and overlying Tertiary deposits have been juxtaposed along many of the northwest/southeast-trending faults. The former Fort Ord lies within the Coast Ranges Geomorphic Province, a discontinuous series of northwest-southeast trending mountain ranges, ridges and intervening valleys characterized by complex folding and faulting; please refer to **Figure 3.8-1** for a Regional Geology Map.

3.8.3. Regional Seismicity and Fault Zones

The former Fort Ord is in a region with several active or potentially active faults and has the potential for moderate to high seismic activity. The potentially active Reliz, Ord Terrace, and Seaside Faults lie partly within the site. In addition, the Chupines Fault runs directly south of the former Fort Ord through the City of Seaside. The San Andreas Fault, located 17 miles northeast of the Proposed Action area, is the only fault in the region which has been known to be active in the past 200 years (Monterey County Geologic Hazards Map, 2019).

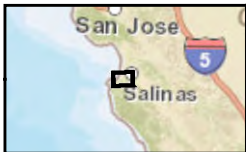
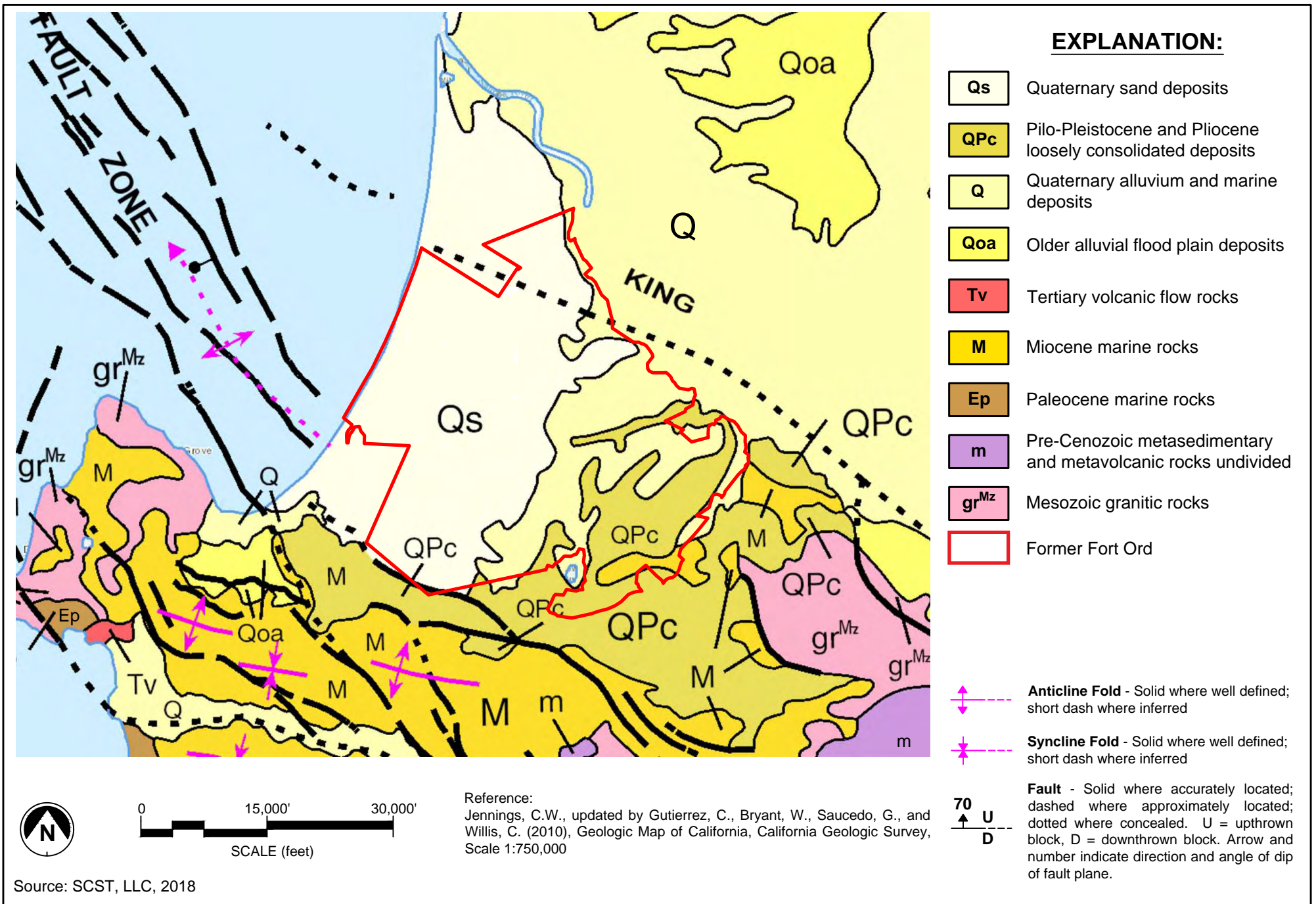
3.8.4. Soils

Most soils at the former Fort Ord were formed by deposition of sand during the rising and falling sea levels associated with the ice ages of the mid- and late Pleistocene Epoch (please refer to Figure 2-1 of the Draft HCP). Nearly 200 feet of sand were deposited in some areas, creating the sandstone and compacted sandy soils common throughout the base. More recently, very high dunes have developed along the coast as coastal beach and recent-age dune deposits. The soils at the former Fort Ord are characteristically medium-grained sand of low organic content. The soils are low in fertility and water-holding capacity, highly erodible, and excessively well drained. Although there are some minor inclusions of other soils, most of the soils at former Fort Ord are represented in seven soil series (Oceano, Baywood, Santa Ynez, Arnold, Antioch, San Andreas, and Diablo) and three general classifications (Coastal beaches, Dune land, and Xerorthents).

3.8.5. Geologic Hazards

3.8.5.1. Faulting and Surface Rupture

Several potentially active faults (the Reliz, Ord Terrace, and Seaside Faults) run through the former Fort Ord. However, these faults are not historically active (i.e. have not been known to be active in the past 200 years). In addition, the former Fort Ord is not located in an Alquist-Priolo Earthquake Fault Zone (Monterey County Geologic Hazards Map, 2019). Unexpected ground rupture from a previously unmapped active fault is possibly but unlikely due to the considerable mapping and fault research completed throughout the County of Monterey (ICF, 2010). Therefore, the probability of surface rupture is low.



Title: **Regional Geology Map**

File: Fig 3.8-1 Regional Geology Map.pdf

Date: 07-05-19

Project: 2444 - FORA HCP

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Figure
3.8-1

3.8.5.2. Liquefaction

Liquefaction occurs when loose, saturated sands and silts are subjected to strong ground shaking. The soils lose shear strength and become liquid, resulting in large total and differential ground surface settlements and possible lateral spreading during an earthquake. Much of the former Fort Ord (96 percent) has a low liquefaction susceptibility. However, liquefaction susceptibility is moderate within the coastal dunes on the western edge of the area, and is high within some lowland areas in the eastern portion of the area (Monterey County Geologic Hazards Map, 2019).

3.8.5.3. Erosion

Much of the former Fort Ord is moderately or highly susceptible to wind and water erosion (please refer to Figure 4.3-2 of the Reuse Plan EIR). The severe coastal erosion at former Fort Ord is a natural process that has been occurring for at least several thousand years. Some of the causes are the postglacial sea level rise and the wave patterns and geomorphic structure of Monterey Bay. The erosion rate has accelerated in this century from about 1.5 feet per year up to 7.0 feet per year in 1983. This increase is the result of reduced sediment supply from sand mining along the coast, sediment trapping in reservoirs in the Salinas River watershed, and loss of vegetation in shoreline dunes.

Wind erosion can affect Dune land, Oceano, and Baywood soils, and wind and water erosion can affect Arnold soils if vegetation is removed and the ground surface is disturbed. Organic matter accumulation or minimal development of soil structure in the surface horizons of the Oceano and Baywood soils may retard wind erosion and lower the erosion hazard if the topsoil has not been disturbed or removed. Sand blown from exposed soils damages existing and replanted vegetation and accumulates in areas from which it must be removed. Wind erosion continues until the source areas are stabilized and revegetated. Removing trees that act as windbreaks increases the wind erosion potential.

Five soils at the former Fort Ord are highly susceptible to water erosion: Arnold, Diablo, San Andreas, Santa Ynez, and Xerorthents soils. Although some erosion occurs naturally on these soils, water erosion is accelerated by disturbances such as road cuts. Erosion results in gulying, channel incisions, sedimentation in wetlands or stream channels down-slope from erosion sites, and, in some areas, landslides.

3.8.5.4. Landslides and Slope Stability

Much of the former Fort Ord (86 percent) has a low susceptibility to landslides. However, some steep soils on the eastern portion of the area are moderately or highly susceptible to landslides (Monterey County Geologic Hazards Map, 2019).

3.8.5.5. Expansive Soils

Expansive soils are soils which swell when they become wet and shrink when they dry out. Soils with moderate or high expansion potential are susceptible to shrinking and swelling due to fluctuations in moisture content and are a common cause of foundation deterioration, pavement damage, cracking of concrete slabs, and shifting of underground utilities (ICF, 2010). Table 18-1-B of the 1994 Uniform Building Code defines soils with expansion indices exceeding 50 as moderately expansive, soils with expansion indices exceeding 90 as highly expansive, and soils with expansion indices exceeding 130 as very highly expansive. Soil data from the Natural Resources Conservation Service provide only generalized information about soils in the former Fort Ord; only geotechnical tests can determine the expansion potential of soils at the site.

3.8.5.6. Land Subsidence

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials. The principal causes of subsidence in the region are groundwater mining, draining of organic soils, underground mining, hydrocompaction, and sinkholes. There is little documentation of widespread subsidence in Monterey County (ICF, 2010). In addition, the former Fort Ord is not located in an area of known subsidence due to groundwater extraction (DWR, 2014).

3.8.5.7. Tsunamis

The beaches which span the western length of the former Fort Ord are mapped as Tsunami Inundation Areas on the California Governor’s Office of Emergency Services’ (Cal OES) Tsunami Inundation Maps for the Marina and Seaside quadrangles (Cal OES, 2009). Tsunami Inundation Areas represent the maximum considered tsunami runup from a number of extreme but realistic tsunami sources. Due to lack of known tsunami occurrences in the area, the Tsunami Inundation Maps provide no information about the probability of a tsunami occurring in the area. One of the expected effects of global climate change is rising sea levels. This would expand inland the coastal areas potentially affected by tsunami. Climate change is addressed in Section 3.5, *Climate Change*, of this EIS/EIR.

3.8.6. Regulatory Framework

3.8.6.1. Federal

The Federal Disaster Mitigation Act of 2000 (Public Law 106-390), which was adopted by Congress in October 2000, requires State and local governments to develop hazard mitigation plans in order to apply for Federal grant assistance for disaster relief. Monterey County, in coordination with all of its incorporated municipalities, has prepared the Multi-Jurisdictional Hazard Mitigation Plan, which was approved by FEMA in March of 2016 (Monterey County Hazard Mitigation Planning Team and AECOM, 2015). The plan, which was initially developed and adopted in 2007, is intended to identify local policies and actions to reduce the risk and future losses from natural hazards such as flooding, severe storms, earthquakes, and wildland fires. The plan also serves to meet key federal planning regulations which require local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation projects. The County of Monterey and the cities of Carmel-by-the-Sea, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside, and Soledad have each adopted the plan by resolution. The 2016 Multi-Jurisdictional Hazard Mitigation Plan will expire in March 2021. The next update of the Monterey County Multi-Jurisdictional Hazard Mitigation Plan commenced in May 2019.

3.8.6.2. State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called “earthquake fault zones,” around the surface traces of active faults and published maps showing these zones. Within these zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Because many active faults are complex and consist of more than one branch, each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace. Title 14 of the CCR, Section 3601(e), defines buildings intended for human occupancy as those that would be inhabited for more than 2,000 hours per year.

Seismic Hazards Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690 to 2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong groundshaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act. The State is charged with identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other corollary hazards. Cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been conducted and measures to reduce potential damage have been incorporated into the development plans. There are no jurisdictions within Monterey County that are included within the State Seismic Hazards Mapping Act.

California Building Codes

The CBC, which is codified in CCR Title 24, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. In addition, the CBC contains necessary California amendments that are based on the American Society of Civil Engineers Minimum Design Standards 7-05, which provides requirements for general structural design and includes means for determining earthquake loads, as well as other loads (e.g., flood, snow, wind) for inclusion in building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements consider the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

Storm Water Pollution Prevention Plan

Construction activity that disturbs one or more acres of soil, or less than one acre but is part of a larger common plan of development that in total disturbs one or more acres, must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP includes construction best management practices (BMPs) such as desilting basins, silt fences, hydroseeding of slopes, and monitoring and clean-up requirements.

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3.9. HAZARDS AND HAZARDOUS MATERIALS

3.9.1. Introduction

This section describes the existing public health and safety factors associated with the Proposed Action and alternatives, including the past use and/or storage of chemicals and other hazardous materials. This discussion is based, in part, on information provided in the Volume 1 of the Army's FEIS and FSEIS and Volume 4 of the Reuse Plan. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS and the Volume 4 of the Reuse Plan and its supporting technical appendices and other relevant documents as referenced.

3.9.2. Regulatory Framework

The generation, storage, and handling of hazardous materials and wastes are regulated by various Federal, State, and local requirements aimed at the protection of public health and the environment. A summary of relevant regulations is provided below.

3.9.2.1. Federal

The U.S. EPA is responsible for enforcing regulations at the Federal level pertaining to hazardous materials and wastes. The primary Federal hazardous materials and wastes laws are contained in the Resources Conservation and Recovery Act (RCRA) of 1976 and in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. The CERCLA established the National Priorities List for identifying and obtaining funding for remediation of severely contaminated sites. Federal regulations pertaining to hazardous materials and wastes are contained in Code of Federal Regulations (40 CFR). The regulations contain specific guidelines for determining whether a waste is hazardous, based on either the source of generation or the characteristics of the waste.

Transportation of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). DOT regulations establish criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code.

3.9.2.2. State

The U.S. EPA has delegated much of its regulatory authority to individual States whenever adequate State regulatory programs exist. The Department of Toxic Substance Control Division (DTSC) of Cal-EPA is the agency empowered to enforce Federal hazardous materials and waste regulations in California in conjunction with the U.S. EPA.

California hazardous materials and waste laws incorporate Federal standards, but in many respects are stricter. For example, the California Hazardous Waste Control Law, the State equivalent of RCRA, contains a much broader definition of hazardous materials and waste. State hazardous materials and waste laws are contained in the CCR, Titles 22 and 26. Regulations implementing the California Hazardous Waste Control Law list 791 hazardous chemicals and 20 to 30 more common materials that may be hazardous; establish criteria for identifying, packaging and labeling hazardous wastes; prescribe management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Under RCRA, a facility is classified as a generator of hazardous waste if it generates and stores hazardous waste on site for less than 90 days; such a facility is required to obtain a U.S. EPA generator's identification number from the U.S. EPA or DTSC. If, however, hazardous waste is stored on site for longer than 90 days, the facility is classified as a Transfer, Storage, or Disposal facility and is required to obtain a RCRA Part B Storage Permit, which can take as long as two years to obtain. Transportation and disposal of hazardous materials are also regulated; hazardous waste must be characterized to determine methods of disposal and site disposal (i.e., class of landfill).

Under both RCRA and the California Hazardous Waste Control Law, hazardous waste manifests must be retained by the generator for a minimum of three years. A hazardous waste manifest lists a description of the waste, its intended

destination, and regulatory information about the waste. A copy of each manifest must be filed with DTSC. The generator must match copies of hazardous waste manifests with receipts from the treatment/disposal/recycling facility to confirm that the wastes were properly handled.

3.9.2.3. Local

FORA Reuse Plan

According to the Reuse Plan, the former Fort Ord was added to the “Superfund” list in 1990. Hazardous and toxic waste sites within the former Fort Ord fall into two major categories: 1) hazardous and toxic waste sites (i.e. buildings, landfills, storage facilities, etc.), and 2) ordnance and explosives (OE). The Reuse Plan contains base-wide public-safety objectives related to past hazardous materials usage on the former Fort Ord, as well as jurisdiction specific goals and policies related to the treatment of hazardous materials. Applicable base-wide public-safety objectives include: 1) ensuring the timely and complete compliance by the Army with the Remedial Investigation/Feasibility Study (RI/FS) (HLA, 1995) and associated Record of Decision (ROD); and, 2) protecting public health and safety during the remediation of hazardous and toxic material sites on Fort Ord.

3.9.3. Regional Setting

As a former military installation, the use and disposal of hazardous materials, including but not limited to automotive oils and chemicals, military munitions, asbestos containing material, lead-based paint, and other materials associated with on-going military operations at Fort Ord has been extensive. Due to the historical use of hazardous materials, numerous environmental hazards have been documented throughout Fort Ord. As part of the base closure and realignment process, the issue of hazardous materials usage and disposal has been the subject of extensive evaluation as part of on-going remediation efforts conducted by the Army. The following section provides a general overview of hazardous materials usage at the former Fort Ord, as well as on-going remediation efforts currently being undertaken to address hazardous materials contamination.

As identified above, hazardous and toxic waste materials at the former Fort Ord consist of a wide variety of materials including industrial chemicals, petrochemicals, domestic and industrial wastes (landfills), asbestos and lead paint in buildings, above- and underground storage units, and ordnance and explosives. Due to the extent of hazardous materials usage and associated presence of hazardous waste, the former Fort Ord was added to the U.S. EPA’s National Priorities List of Hazardous Waste Sites (commonly referred to as “Superfund” List) in February 1990. Remediation conducted as part of the Superfund process is regulated by numerous regulatory requirements, including the CERCLA, the Superfund Amendments and Reauthorization Act, the RCRA, the CCR Title 22 and Title 23, the California Water Code, and other regulations.

The Army, as part of the Superfund process, is responsible for completing remediation activities at the former Fort Ord prior to the final conveyance of property to local jurisdictions. The identification, remediation, and disposal of hazardous waste associated with the Superfund cleanup process was initiated as part of the Federal Facility Agreement (U.S. EPA et al., 1990). The Federal Facility Agreement is meant to “ensure that the environmental impacts associated with past and present activities at the site [former Fort Ord] are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment.” The Federal Facility Agreement was also intended to develop requirements for the performance of RI/FS to determine the nature and extent of the threat to the public health and the environment caused by the release of hazardous substances, pollutants, or contaminants at the site, in addition to the fulfillment of remediation requirements pursuant to CERCLA and applicable State law.

A base-wide RI/FS was conducted in 1995 to evaluate environmental contamination (HLA, 1995). This process consisted of a review and evaluation of past investigative and removal actions, and made recommendations for future response actions deemed necessary to protect human health and the environment. The base-wide RI/FS was approved by the regulatory agencies party to the Federal Facility Agreement and a subsequent ROD identified the Army as responsible for the long-term monitoring and cleanup of Fort Ord. According to the information contained in the base-wide RI/FS, individual sites were classified based on site characteristics and the potential for hazardous conditions. The 43 sites

identified in the RI/FS were subsequently classified into three categories: 1) Base-wide Remedial Investigation (RI) Sites; 2) Interim Action sites; and 3) No Action sites. These classifications are defined as follows:

- **RI Sites:** RI sites have sufficient contamination to warrant a full RI, Baseline Risk Assessment (BRA), Ecological Risk Assessment (ERA), and Feasibility Study (FS).
- **Interim Action Sites:** Interim Action sites have limited volume and extent of contaminated soil and, as a result, are easily excavated, as an interim action.
- **No Action Sites:** No Action sites do not warrant remedial action under CERCLA.

The above classifications were utilized in order to expedite the review, clean-up, and conveyance of former Fort Ord lands to local municipalities. Once the Army has determined that the properties are suitable to transfer under CERCLA, Findings of Suitability to Transfer (FOST) or Findings of Suitability of Early Transfer (FOSET) are prepared. In accordance with CERCLA, the FOST or FOSET document that either the property is uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully. Hazardous sites are identified in **Figure 3.9-1**.

3.9.4. Existing Hazards

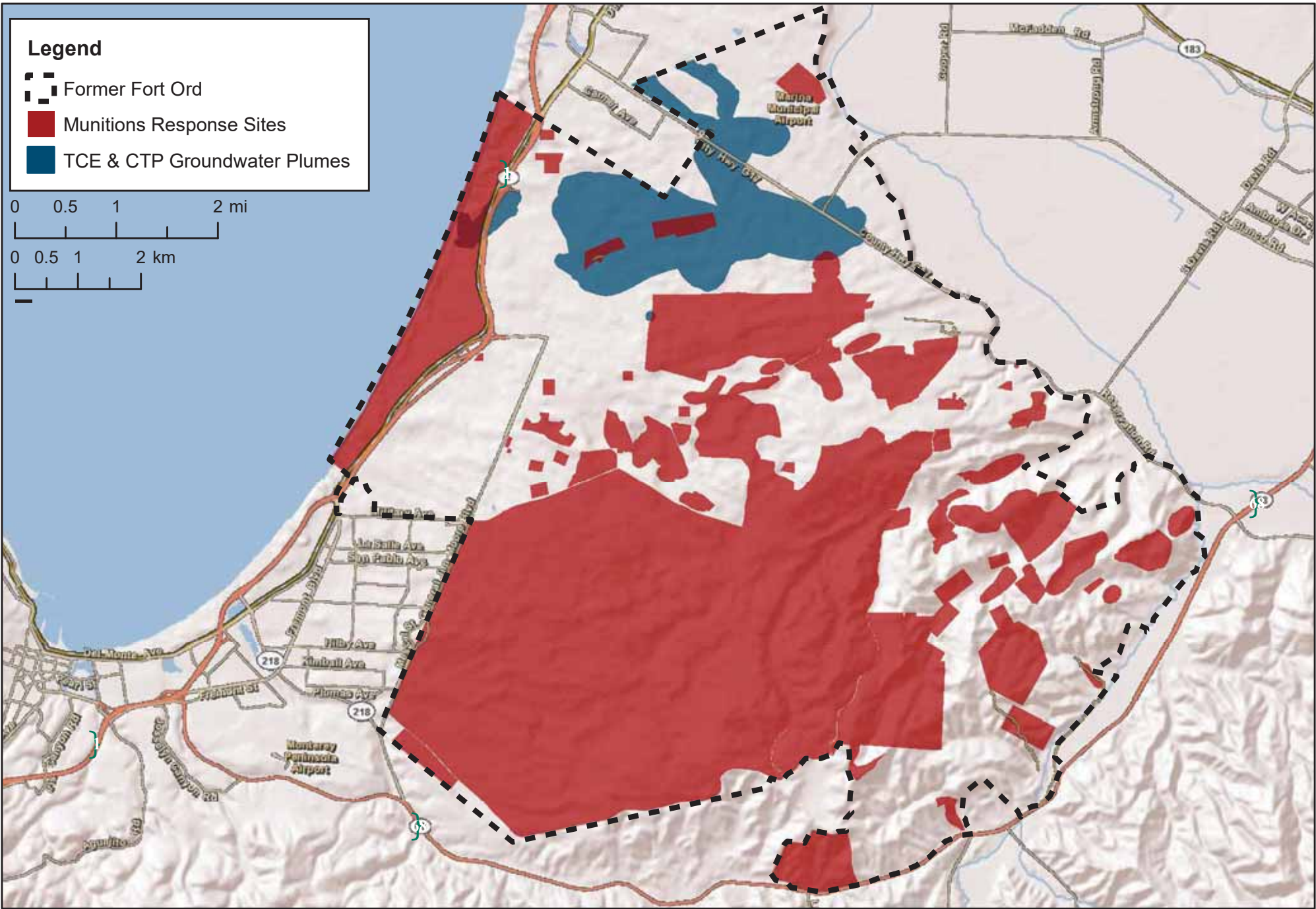
3.9.4.1. Military Munitions

Since 1917, portions of Fort Ord were used by infantry units for maneuvers, target ranges, and other purposes. Military munitions, formerly referred to as OE, were fired into, fired upon, or used on the facility in the form of artillery and mortar projectiles, rockets, guided missiles, rifle and hand grenades, land mines, pyrotechnics, bombs, and demolition materials. These materials are present throughout the former Fort Ord as either unexploded ordnance (UXO) or munitions debris. As a former Army training installation, the use of military munitions occurred throughout the base for training purposes.¹

Munitions-related training activities were primarily concentrated in an 8,000-acre area located in the south-central portion of Ford Ord; this area once served as the primary target area for weapons training. This area is referred to as the “Impact Area” and is anticipated to have the highest density of military munitions within the former Fort Ord; please refer to **Figure 3.9-2**. Munitions and munitions debris are also found throughout the former base. Lower densities of military munitions and UXO are expected in the outer portions of the inland range area and in the training areas to the north and east of the Impact Area. Coastal beach firing ranges are also included in the classification of lower density UXO. Unexploded munitions and explosives are considered MEC because they are considered an explosive safety risk consisting of UXO (fired military munitions) and Discarded Military Munitions (DMM) (unfired military munitions).

As part of on-going clean-up activities on the former Fort Ord, the Army has been performing surface and subsurface clean-up actions involving military munitions and MECs in accordance with the Munitions Response Remedial Investigation/Feasibility Study. As part of this process, prescribed burns have been used to clear the dense vegetation cover on much of the “Impact Area” and former range sites to reveal the presence of military munitions, munitions debris, and MECs. After initial surface clearance activities, the Army subsequently performs subsurface clean-up to ensure the suitability of the sites for transfer.

¹ According to the *Draft Final Ordnance and Explosives Remedial Investigation/Feasibility Study Work Plan* (USACE and HLA, 2000), OE, now referred to as military munitions, are defined as “anything related to munitions designed to cause damage to personnel or materials through explosive force or incendiary action including bombs, warheads, missiles, projectiles, rockets, antipersonnel and antitank mines, demolition charges, pyrotechnics, grenades, torpedoes and depth charges, high explosives and propellants, and all similar and related items or components explosive in nature or otherwise designed to cause damage to personnel or material.”



Title: **Hazard Sites Map**

File: Hazard Sites Map.mxd

Date: 04-16-12

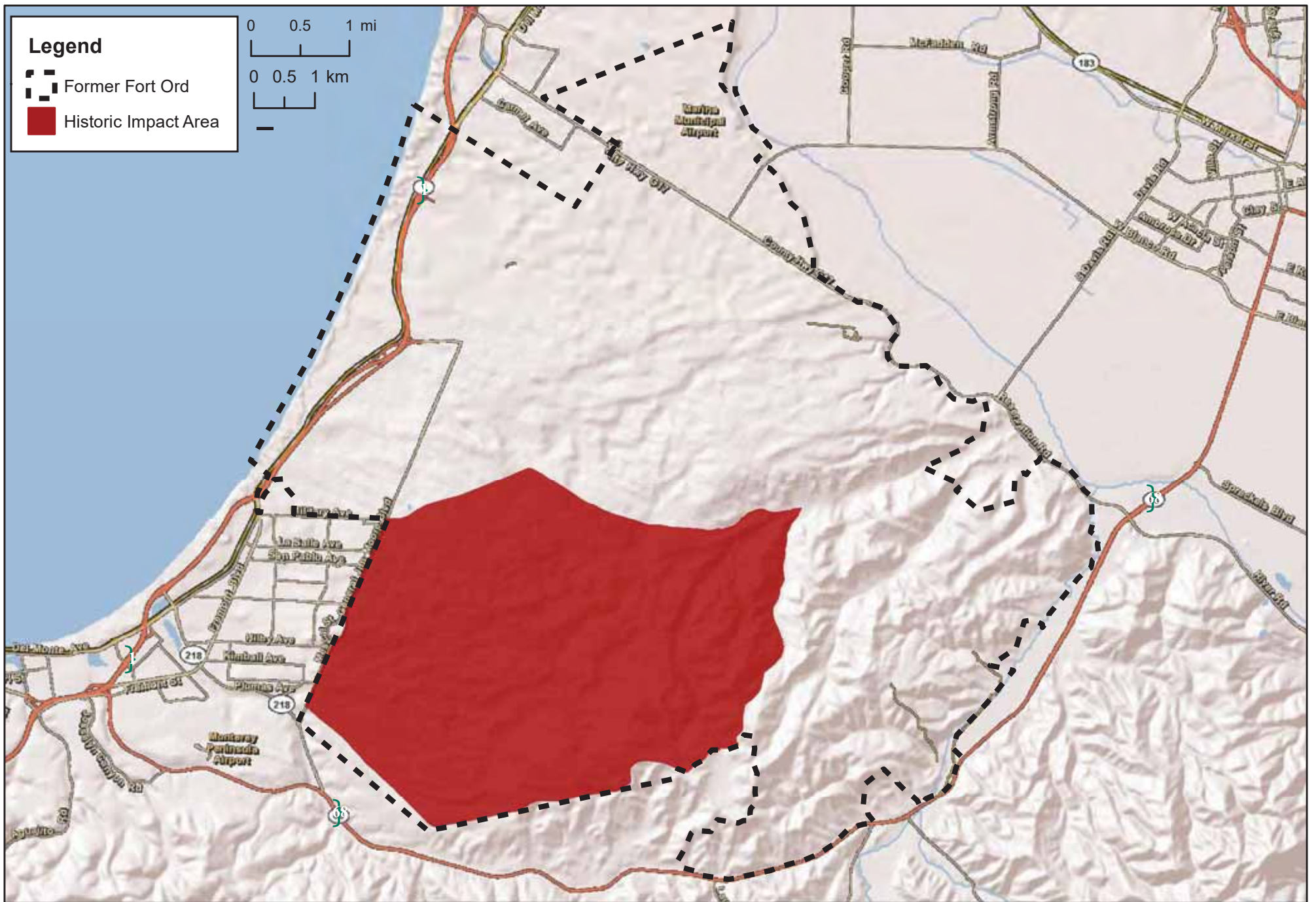
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Figure
3.9-1



Title: **Historic Impact Area Map**

File: Impact Area Map.mxd

Date: 07-06-11

Scale: 1 inch = 1.28 miles

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Figure
3.9-2

3.9.4.1. Asbestos Containing Material

Because a substantial amount of construction occurred at Fort Ord from the 1940s to the 1960s, the majority of former Fort Ord buildings contain some type of asbestos.² An asbestos survey of approximately 350 non-residential buildings (i.e., retail stores, office buildings, lavatories, dining halls, barracks, general-purpose buildings, vehicle maintenance and storage, oil storage, bus/taxi stations, and ammunition bunkers) was performed in 1989 and 1990 and both friable and non-friable asbestos containing material (ACM) were documented. Subsequently, from October 1991 to April 1993, a base-wide asbestos survey of an additional 2,689 non-residential and barracks structures was performed and both friable and non-friable ACM were found. To address asbestos related concerns, an asbestos management program is implemented at the former Fort Ord. The primary objectives of the program are to: 1) identify ACM in Army-controlled buildings; 2) evaluate the ACM's friability, condition, and potential for damage; and 3) implement response actions appropriate to the findings.

3.9.4.2. Lead-Based Paint

As many Fort Ord era structures were constructed and/or rehabilitated prior to 1978, it is assumed that these structures likely contain lead-based paint. The demolition and/or rehabilitation of these structures are likely to result in the exposure of construction personnel and/or future occupants to environmental hazards associated with lead-based paint. Lead-based paint may result in human health and safety concerns if not properly managed. The exposure to lead-based hazards can result in lead poisoning, which may produce neurological damage, including learning disabilities, behavioral problems, and impaired memories in children.

In order to address potential human health hazards associated with lead-based paint, a lead-based paint management program is implemented in Fort Ord. The objectives of this program are to: 1) identify and control lead-based paint and lead-contaminated dust in target facilities; and 2) eliminate hazards in reuse properties that contain buildings constructed prior to 1978 that are intended to be used for residential purposes. Lead hazards are of particular concern for properties that are designated for future residential use.

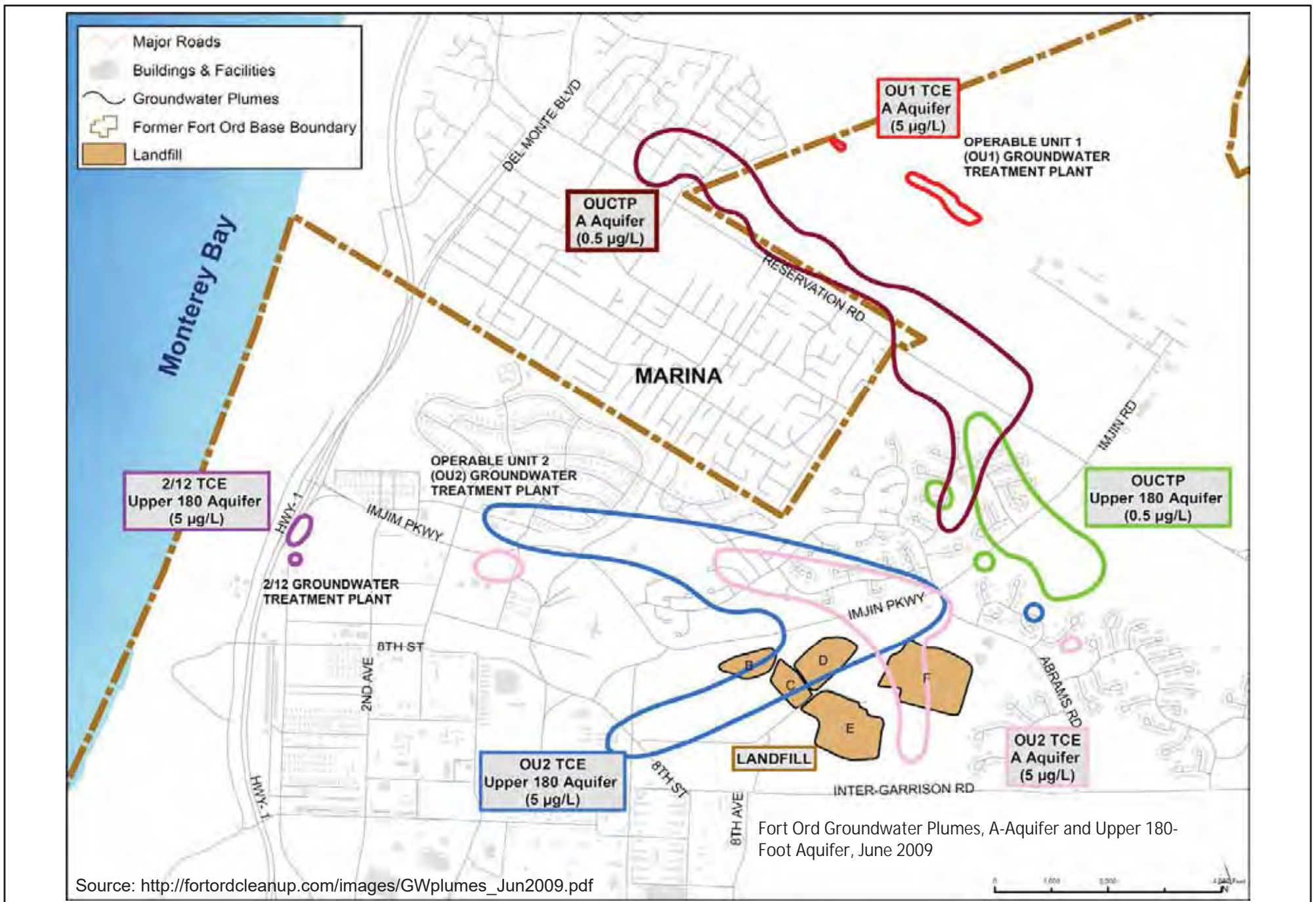
3.9.4.3. Polychlorinated Biphenyls

Polychlorinated biphenyls, or PCBs, have been widely used throughout the former Fort Ord as coolants and lubricant in transformers and other electrical equipment, such as fluorescent light ballast. PCBs, according to the U.S. EPA, are considered a carcinogen.

3.9.4.4. Contaminated Groundwater

Groundwater in the Fort Ord aquifer system has been impacted by various base activities and by seawater intrusion resulting from the pumping of groundwater for water supply and agricultural purposes. Base activities resulted in the presence of organic compounds in the groundwater beneath Fort Ord. Organic contaminants, most commonly trichloroethylene (TCE), have formed a groundwater plume in the various aquifers underlying the former Fort Ord, including the A-Aquifer, Upper 180-foot aquifer, and the Lower 180-/400-foot aquifers near the former landfill. Efforts are currently being undertaken by the Army to address groundwater contamination issues. The Army and other regulatory agencies have identified four areas where chemicals have contaminated groundwater; these sites are discussed below. Please refer to **Figure 3.9-3** for a graphical depiction of the sites described below.

² The unregulated or unprotected exposure to ACM has been related to human health and safety concerns. Both the Occupational Safety and Health Administration (OSHA) and the U.S. EPA regulate asbestos due to potential health hazards. Exposure to ACM can increase the risk of asbestos related diseases, including certain cancers that can result in disability and/or death.



Fort Ord Groundwater Plumes, A-Aquifer and Upper 180-Foot Aquifer, June 2009



Title: **Groundwater Contamination Source Map**
 File: Fig 3.9-3 Groundwater Contamination Map.pdf

Date: 07-06-11
 Scale: 1 inch = 1.28 miles
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Figure
3.9-3

Operable Unit 1

Operable Unit 1 (OU1), Fritzsche Army Airfield Fire Drill Area (FDA), was formerly used as a fire fighting training area at the Marina Municipal Airport. As part of training activities, fuel was discharged from an onsite storage tank into a pit, ignited, and then extinguished. These activities lead to contaminated soil and groundwater. Approximately 4,000 cubic yards of contaminated soil was removed from the site as part of cleanup activities. Groundwater remediation efforts have been on-going to address TCE and other related contaminants.

The Army undertook initial clean-up efforts in 1988 by installing a water treatment facility to treat contaminated groundwater. The Army began pumping contaminated water from the ground and passing the water through granular activated carbon to remove organic compounds; the groundwater is subsequently pumped back into the aquifer. In 1995, the Army, U.S. EPA, DTSC, and RWQCB completed and signed the OU1 ROD (USACE and HLA, 1995), which identified specific cleanup goals for each of the ten compounds of concern, including TCE, that were found in the groundwater below the site.

As of 2008, nine of the original compounds of concern are below safe drinking water standards or no longer detectable. These nine compounds of concern meet the aquifer cleanup goals contained in the ROD. Only TCE remained above the drinking water standards. In 2017, remediation of OU1 was completed.

Operable Unit 2

Operable Unit 2 (OU2) consists of the 120-acre former Fort Ord Landfill. After closure, it was determined that hazardous chemicals from the landfill were leaking into the groundwater underlying the site due to the percolation of rainwater. The cleanup actions for this site are addressed in two ways. First, the Army conducted soil remediation on-site and subsequently placed an impermeable engineered cover, or cap, over the majority of the landfill to prevent further contamination; an interim cap was also placed on a portion of the site.³ The cap prevents rainwater from percolating downward through the waste and into the groundwater. Construction of the cap has eliminated the risk of further contamination, although the existing groundwater still warrants remediation.

In 1995, the Army constructed a groundwater treatment facility to address eleven chemicals of concern, including TCE. The system consists of pumping contaminated groundwater from extraction wells that pump from the shallow A-Aquifer, and extraction wells pumping in the Upper 180-foot Aquifer. The treatment system includes sixteen extraction wells in the A-Aquifer and eight extraction wells in the Upper 180-foot Aquifer. The system removes the contaminants by passing the water through granulated activated carbon.

As of March 2017, approximately 7 billion gallons of contaminated water has been treated and re-injected back into the ground. According to the Army, approximately 814 pounds of contaminants have been removed from groundwater at OU2 since October 1995 (Ahtna Environmental Inc., 2017a).

Operable Unit Carbon Tetrachloride

The Operable Unit Carbon Tetrachloride Plume (OU-CTP) is located in the north-central portion of Fort Ord. Carbon tetrachloride is a solvent that was commonly used in fire extinguishers, pesticides, chemical manufacturing and as a cleaning agent for machined parts. According to limited historical information, the Army believes that electronics maintenance activities existed in the north-central part of the former Fort Ord during the 1950s. The Army believes that the origin of contamination was leaking or dumping of carbon tetrachloride at a radio repair shop on the former Fort Ord. Carbon tetrachloride appears to have been discharged to the ground after it was used to clean radio parts.

Data collected for the site investigation for inclusion in the RI/FS indicated that carbon tetrachloride had migrated through the soil to groundwater. A soil vapor extraction system installed as a pilot study has successfully removed remaining soil

³ A small, approximately 25-acre area of the landfill (called Area A) was excavated then hauled to another part of the landfill to consolidate the debris in a smaller area. This soil consolidation action allowed for clean closure of that 25-acre area of former landfill, which is now available for unrestricted use. The remaining areas of the large landfill (Areas B, C, D and F) have been completely closed by the construction of a cap. A seven-acre portion of Area E is covered with an interim cap, but will be completely closed pending completion of soil excavation actions at Site 39.

vapor contamination. Groundwater contamination has migrated down gradient and affects three aquifer units below the site. These are the A, Upper 180-foot, and Lower 180/400-foot Aquifers. A RI/FS was completed in 2006 (MACTEC, 2006), which identified three remedial treatment technologies to address the groundwater contamination for each level of the aquifer, as follows:

- A-Aquifer: in situ bioremediation;
- Upper 180-foot Aquifer: capture in the OU2 groundwater extraction system and treat;
- Lower 180-foot Aquifer: Monitored Natural Attenuation (MNA).

In the A-Aquifer, the Army is using an innovative process called in situ bioremediation. Treatment is accomplished by injecting lactate into the groundwater. The lactate works with bacteria already in the groundwater to break down the carbon tetrachloride. As part of this process, the carbon tetrachloride is broken down into harmless compounds. In the Upper 180-foot Aquifer, the carbon tetrachloride will be removed by extracting the groundwater using newly installed pumping wells and treating the water at the OU2 treatment system with granular activated carbon which removes the contaminants. The treated water is then re-injected into the Upper 180-foot Aquifer. In the Lower 180-foot Aquifer, the concentrations of carbon tetrachloride are very low and contamination coming from higher aquifers has been stopped by pumping from the Upper 180-foot Aquifer. The levels of the remaining carbon tetrachloride are continuing to decrease through naturally occurring processes like bioremediation. For this reason, the water is not being actively treated, although the Army is actively monitoring the area.

Sites 2/12

Groundwater contamination at Sites 2/12 originated from a former auto repair shop on the east side of Highway 1. During operation of the repair shop, TCE was spilled or released onto the soil where it leached down into the groundwater. Contamination is extracted by pumping groundwater, passing it through granular activated carbon, and then injecting treated water back in the ground. This treatment process has been going on since 1999, and the original footprint of the plume underneath this site has been reduced. As of March 2017, the treatment system has cleaned approximately 1.96 billion gallons of water, removing over 479.5 pounds of contaminants (Ahtna Environmental Inc., 2017b). The Army estimates that cleanup will be complete in four to seven years.

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3.10. HYDROLOGY AND WATER QUALITY

3.10.1. Introduction

This section contains a discussion of hydrology and water quality at the former Fort Ord based on existing environmental documents, as referenced. This section presents the existing surface water and hydrogeologic (groundwater) setting in the Plan Area and the applicable regulations on the Federal, State, and local levels. The Plan Area generally includes the area south of the Salinas River, west of the City of Salinas, north of the Carmel River, and east of the Monterey Bay coastline. This discussion is based, in part, on information provided in the Reuse Plan EIR. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced.

3.10.2. Regulatory Framework

3.10.2.1. Federal

Clean Water Act

Under the CWA of 1977, the U.S. EPA seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters by implementing water quality regulations. The NPDES permit program under section 402(p) of the CWA controls water pollution by regulating sources that discharge pollutants into waters of the United States. The U.S. EPA has delegated authority of issuing NPDES permits in California to the State Water Resources Control Board (SWRCB), which has nine regional boards. The California Regional Water Quality Control Board Central Coast Region (RWQCB-CCR) regulates water quality in the action area.

Section 303(d)

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., do not meet one or more of the water quality standards established by the State). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the State is required to establish a Total Maximum Daily Load (TMDL) for the pollutant. The TMDL is the maximum amount of a pollutant that a water body can receive and still meet the water quality standards. Typically, a TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. **Table 3.10-1** lists the impaired water bodies in the vicinity of the former Fort Ord.

Table 3.10-1. 303(D) List of Impaired Water Bodies in the Project Vicinity

Water Bodies	Impairments/Pollutants
Old Salinas River estuary	Pesticides, nutrients
Salinas River (lower, estuary to near Gonzales River Road crossing)	Chlordane, Chloride, DDD (Dichlorodiphenyldichloroethane), Diazinon, Dieldrin, Electrical Conductivity, E. coli, Fecal coliform, nitrate, PCBs, Pesticides, pH, Sodium, Total Dissolved Solids, Toxaphene, Turbidity, Unknown toxicity

Source: Final 2012 Integrated Report (303(d) List/305(b) Report) Supporting Information (RWQCB-CCR, 2015)

Coastal Zone Management Act

Section 6217 of the Federal Coastal Zone Management Act of 1972 (CZMA) and Reauthorization Amendments of 1990 require local entities that discharge any stormwater into the ocean to participate in a non-point-pollution control plan developed by the CCC and SWRCB. The plan must then be submitted to the U.S. EPA and NOAA for approval.

Marine Protection, Research, and Sanctuaries Act of 1972 – National Marine Sanctuary Program Regulations

The NOAA has entered into a MOA with Cal-EPA and AMBAG regarding the Monterey Bay National Marine Sanctuary (MBNMS) regulations relating to water quality within State waters within the sanctuary (MBNMS, 2016). With regard to permits, the MOA encompasses:

- NPDES permits issued by the State of California under Section 13377 of the California Water Code; and
- Waste Discharge Requirements issued by the State of California under Section 13263 of the California Water Code.

The MOA specifies how the review process for applications for leases, licenses, permits, approvals, or other authorizations will be administered within State waters within the MBNMS, in coordination with the State permit program.

The MBNMS implements the Water Quality Protection Program for the Sanctuary and tributary waters. The program is a partnership of 27 local, State, and Federal government agencies (MBNMS, 2008). The program calls for education, funding, monitoring, and development of treatment facilities and assessment programs to protect water quality. The goal of the program is to enhance and protect the chemical, physical, and biological integrity of the sanctuary.

Executive Order 11988 and National Flood Insurance Program

Under Executive Order 11988, the Federal Emergency Management Agency (FEMA) is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a one percent or greater chance of flooding in any given year. Also, FEMA administers the National Flood Insurance Program (NFIP), which requires that local governments covered by Federal flood insurance enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year flood zone (one percent chance of occurring in a given year). FEMA prepares Flood Insurance Rate Maps (FIRMs) that indicate areas prone to flooding. The Monterey County Water Resources Agency (MCWRA) is responsible for issuing permits within designated flood zones in the unincorporated County area and would ensure consistency with requirements for development within a floodplain. Local municipalities are responsible for permitting development on floodplains within their jurisdiction.

3.10.2.2. State

California Coastal Act

The CCA, established in 1976, defines the “coastal zone” as the area of the State that extends generally 1,000 yards (3,000 feet) inland and three statute miles seaward. The CCA includes policies intended to protect water quality and established the CCC. Almost all development within the coastal zone requires a coastal development permit from the CCC or a local agency with a certified LCP. By adopting a LCP, the local jurisdiction assumes the authority and responsibility to implement the CCA. However, there are no adopted LCPs within the Plan Area.

Ocean Plan

The *Water Quality Control Plan for Ocean Waters of California* (or Ocean Plan) adopted by the SWRCB (2015) establishes water quality objectives and beneficial uses for waters of the Pacific Ocean adjacent to the California Coast outside of estuaries, coastal lagoons, and enclosed bays. The plan establishes effluent quality requirements and management principles for specific waste discharges. The water quality requirements and objectives are incorporated into all NPDES permits. The Ocean Plan objectives relevant to the proposed project include:

- Marine communities, including vertebrate, invertebrate, and plant species shall not be degraded;
- Waste management systems that discharge into the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community;
- Waste discharged to the ocean must be essentially free of substances that will accumulate to toxic levels in marine waters, sediments, or biota; and

- The Ocean Plan establishes objectives for many bacterial, physical, chemical, biological, and radioactive parameters.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) provides the basis for water quality regulation within California and defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses. The Porter-Cologne Act allows the SWRCB to adopt statewide water quality control plans or basin plans, which serve as the legal, technical, and programmatic basis of water quality regulation for a region. The act also authorizes the NPDES program under the CWA, which establishes effluent limitations and water quality requirements for discharges to waters of the State. The Basin Plan for the Central Coast is discussed in the local regulatory section below.

California Toxics Rule

Under the California Toxics Rule (CTR), the U.S. EPA has proposed water quality criteria for priority toxic pollutants for inland surface waters, enclosed bays, and estuaries. These federally promulgated criteria create water quality standards for California waters. The CTR satisfies CWA requirements and protects public health and the environment. The U.S. EPA and the SWRCB have the authority to enforce these standards, which are incorporated into the NPDES permits (discussed in the local regulatory section) that regulate the current discharges in the action area. The standards would be included in the NPDES permits for any proposed discharges associated with the implementation of the Proposed Action or alternatives.

NPDES General Construction Permit

Construction activities on one or more acres of soil, or projects that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The SWRCB established the General Construction Permit program to reduce surface water impacts from construction activities. Implementation of the Proposed Action or alternatives would be required to comply with the permit requirements to control stormwater discharges from the construction sites. The General Construction Permit requires the preparation and implementation of a stormwater pollution prevention plan (SWPPP) for construction activities. The SWPPP must be prepared before the construction begins. The SWPPP must include specifications for BMPs that would need to be implemented during construction. BMPs are measures that are undertaken to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. Additionally, the SWPPP must describe measures to prevent or control runoff after construction is complete and identify procedures for inspecting and maintaining facilities and other project elements. The required elements of a SWPPP include:

- Site description addressing the elements and characteristics specific to the site;
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for construction waste handling and disposal;
- Implementation of approved local plans;
- Proposed post-construction controls; and
- Non-stormwater management.

Examples of typical construction BMPs include scheduling or limiting activities to certain times of year, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, and vehicle and equipment washing and fueling. The RWQCB has identified BMPs in the *California Stormwater Best Management Practice Handbook* (California Stormwater Quality Association, 2003) to effectively reduce degradation of surface waters to an acceptable level.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA) consists of three legislative bills: SB 1168, AB 1739, and SB 1319. The legislation provides a framework for long-term sustainable groundwater management across California. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins will form Groundwater Sustainability Agencies (GSAs) that oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP).

3.10.2.3. Local

Central Coast Water Quality Control Plan

The RWQCB-CCR updated their *Water Quality Control Plan for the Central Coastal Basin* (Basin Plan) in 2016. It is intended to provide guidance on how the quality of the surface water and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan serves as a guidance document to the Water Board when reviewing and authorizing projects under their Section 401 authority. The RWQCB establishes beneficial uses of surface and groundwater resources, as contained in its Water Quality Control Plan for the Central Coast (RWQCB-CCR, 2011).

NPDES General Permit

The NPDES General Permit No. CAS000004 regulates stormwater discharges from Small Municipal Separate Storm Sewer Systems (MS4)¹ that include the County of Monterey and cities in the action area. Implementation of the Proposed Action or alternatives would be subject to the stormwater control requirements in the permit. To comply with the stormwater permit and develop a permit application, the County and the cities of Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, and Seaside formed the Monterey Regional Stormwater & Education Alliance (SEA) group in 2001 and developed the Monterey Regional Stormwater Management Program (MRSWMP) in 2006. Monterey One Water (formerly the Monterey Regional Water Pollution Control Agency, or MRWPCA) acts as the administrative agent for the MRSWMP. The purpose of the MRSWMP is to implement and enforce a series of BMPs to reduce the discharge of pollutants from the MS4s to the “maximum extent practicable,” to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The SEA group developed the Model Urban Runoff Program (MURP), which is a comprehensive guide developed for the local agencies to address polluted runoff in the urban environment (City of Monterey et al., 2008). The MURP provides options to help small municipalities develop individual urban runoff programs. Each member or the permittee is responsible for complying with the NPDES permit conditions. The local municipalities would require the Proposed Action to comply with the stormwater control requirements in their individual jurisdictions under the Countywide permit and require implementation of erosion and stormwater control measures to reduce any long-term runoff from the facilities.

Monterey Peninsula Water Management District

The Monterey Peninsula Water Management District (MPWMD) is responsible for integrated management of the groundwater and surface water resources in the Monterey Peninsula area. The legislative functions of the MPWMD include:

- Augmenting the water supply through integrated management of surface and ground water resources;
- Promoting water conservation (includes rationing, if needed);
- Promoting water reuse and reclamation of storm and wastewater; and
- Fostering the environmental quality, native vegetation, fish and wildlife, scenic values, and recreation on the Monterey Peninsula and in the Carmel River basin.

¹ U.S. EPA promulgated regulations, known as Phase II, requiring permits for stormwater discharges from Small MS4s (that serve a population of up to 100,000) and from construction sites disturbing between one and five acres of land (discussed under General Construction Permit above).

Fort Ord Reuse Plan

The Reuse Plan includes goals and policies to protect water resources in the action area. These goals and policies have been included as general plan goals and policies for the County and the individual cities in the project area.

3.10.3. Regional Setting

The former Fort Ord is located between the Salinas and Carmel River watersheds and covers an area of about 44 square miles. These two major watersheds include several smaller watersheds and surface water bodies such as the Laguna Seca and Canyon del Rey watersheds in the Salinas River watershed, and the Carmel Valley and Carmel Bay watersheds in the Carmel River watershed. The Salinas River watershed drains into Moss Landing Harbor, except for during high flows when the Salinas River watershed drains into Monterey Bay. The Carmel River watershed drains into Carmel Bay (see **Figure 3.10-1**).

The climate in the project area is moderate year-round with warm, dry summers and cool, moist winters. The average temperature is approximately 59 degrees Fahrenheit (County of Monterey, 2010). The average rainfall in the county varies, but is approximately 18 inches per year, mostly between the months of November and April. The three major developed areas within the action area are the former Main Garrison and East Garrison areas, and the Marina Municipal Airport, formerly known as the Fritzsche Army Airfield.

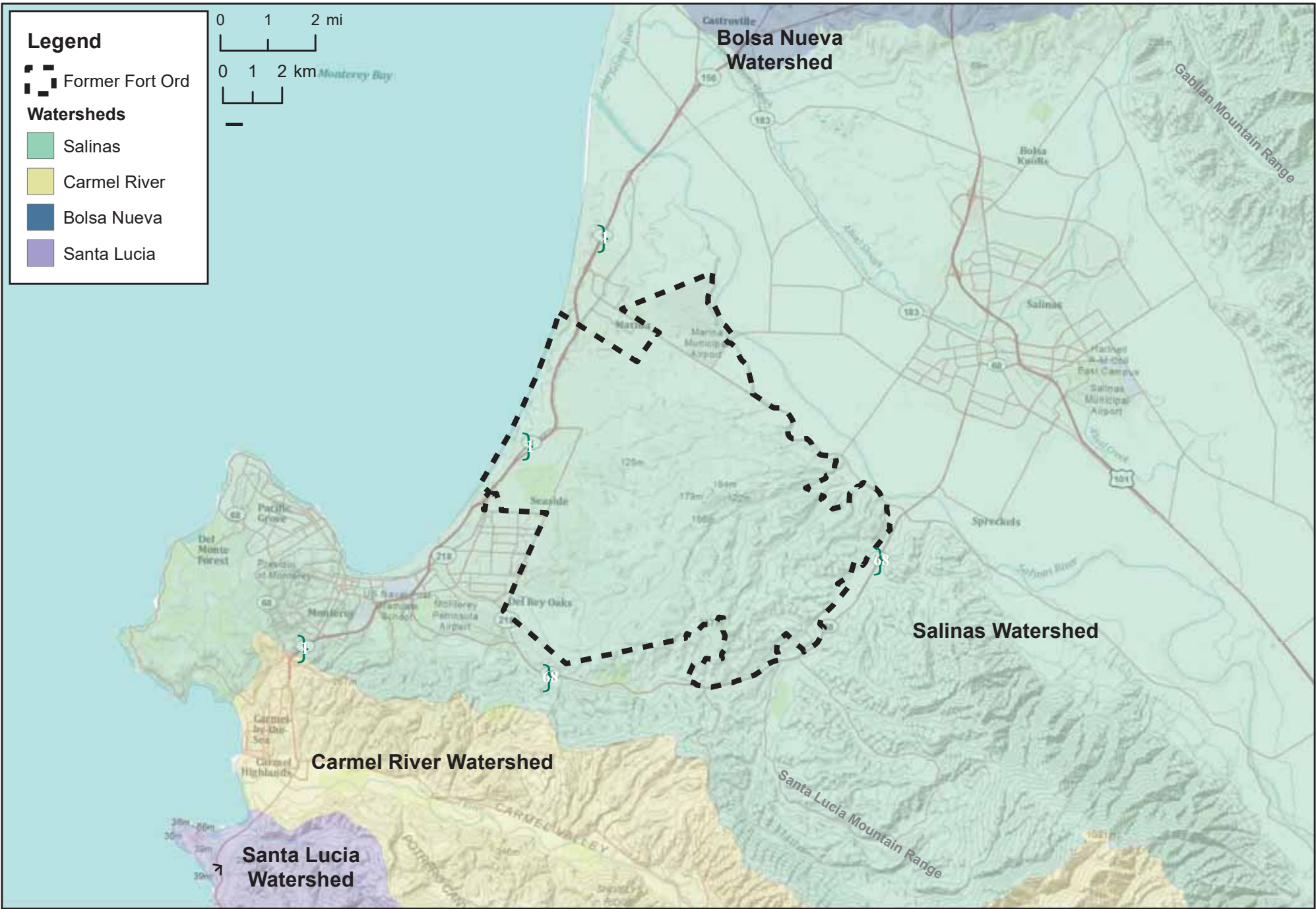
3.10.4. Surface Water Hydrology

The topography of former Fort Ord is characterized by stabilized sand dunes in the western half of the base, transitioning to rolling hills and canyons in the eastern half. The sandy soils in the western half of the base are highly permeable and absorb much of the rainfall and runoff without forming distinct creek channels. The streams in the canyons in the eastern part of the former Fort Ord are small and intermittent. Impossible, Wildcat, Barloy, and Pilarcitos Canyons and Toro Creek drain to the northeast and into the Salinas River. Canyon del Rey drains the southern portion of the former Fort Ord and empties into the Monterey Bay, a designated national marine sanctuary.

The Salinas River is the largest water system in County of Monterey and runs along the northeast border of the former Fort Ord. The Salinas River watershed is bounded by the Santa Lucia Mountains to the west and the Gabilan Mountains to the east. The Salinas River is 155 miles long and roughly bisects the county, terminating in Monterey Bay near Moss Landing. The Salinas River delivers approximately 282,000 acre-feet per year (AFY) of water to the Pacific Ocean at Moss Landing. Most of the water (approximately 90 percent) is delivered during periods of peak precipitation, between mid-December and April.

The Laguna Seca watershed is located between the cities of Monterey and Salinas. Surface flows in the watershed drain to the Salinas River or directly into Monterey Bay. The Laguna Seca watershed includes a seven-square mile portion of the Seaside ground water basin. The Canyon del Rey watershed is relatively small and is located in the Seaside/Del Rey Oaks/Highway 68 Corridor (County of Monterey, 2010).

The shoreline of the Monterey Bay is the western boundary of the former Fort Ord. The oceanographic feature affecting waters of Monterey Bay and its adjacent continental shelf is primarily the California Current System, which consists of the California Current, the California Undercurrent, and the Davidson Current. The California Current is a large-scale upper ocean current that transports cold subarctic and North Pacific water south along the North American coast (Bograd et al., 2000; Breaker et al., 2005). Beneath this near-surface current, and relatively close inshore (within 100 kilometers or 62 miles), is the California Undercurrent that transports warm subtropical water northward. During winter months, the California Undercurrent shoals and becomes the inshore countercurrent or Davidson current (Pennington & Chavez, 2000).



Title: **Watershed Map**

File: Watershed Map.mxd

Date: 07-08-11

Scale: 1 inch = 2.67 miles

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Figure
3.10-1

3.10.5. Groundwater Hydrology

Groundwater is the water occurring beneath the earth's surface, and hydrogeology refers to the study of how that water interacts with the underlying geologic units of rock and soil. Most groundwater occurs in material deposited by streams, lakes, and oceans, generally called alluvium. Alluvium consists of sand and gravel deposits and finer-grained deposits such as clay and silt. Fluvial deposits, although commonly generically included with alluvium, more specifically refer to deposits laid down by rivers and streams as a result of bank erosion, where the material is transported and redeposited in the form of bars, points, and flood plains.

Coarse materials such as sand and gravel deposits usually provide the best storage capability for water and, when saturated with water, are termed aquifers. Finer-grained clay and silt deposits are relatively poor for water storage and use, and are referred to as aquitards, in that they restrict or impede the vertical migration of groundwater or infiltrated surface water. Aquifers can extend over many square miles and are referred to as basins. A groundwater basin is defined as an aquifer or a stacked series of aquifers with reasonably well defined boundaries in a lateral direction and a definable bottom. California's groundwater basins typically include one aquifer or a series of aquifers with intermingled aquitards. In general, groundwater basin boundaries are determined by physical attributes, such as the lateral extent of aquifers, boundaries to flow (such as bedrock), and groundwater divides. A groundwater divide, like a surface water divide, separates distinct groundwater flow regions within an aquifer. A divide is defined by a line on either side of which groundwater moves in divergent directions.

Two groundwater basins underlie the former Fort Ord: the Salinas Valley Groundwater Basin (SVGB) and Seaside Groundwater Basin (Seaside Basin), which are described below.

3.10.5.1. Salinas Valley Groundwater Basin

The main part of the SVGB has been divided into four subareas referred to as the 180/400-Foot, East Side, Forebay, and Upper Valley Subareas or Subbasins, based on sources of recharge and stratigraphy. There are four additional subbasins around the periphery of the main part of the basin that are recognized by the Department of Water Resources: Seaside Area, Corral de Tierra Area, Langley Area, and East Side Aquifer. The Seaside Basin as discussed herein corresponds to parts of the Seaside Area and Corral de Tierra Area Subbasins.

The northwest part of the former Fort Ord overlies the 180/400-Foot Aquifer, which contains several aquifers separated by aquicludes or clay layers. The 180/400-Foot Aquifer Subbasin includes three primary aquifers: the 180-Foot Aquifer (Upper and Lower), the 400-Foot Aquifer, and the 900-Foot (Deep) Aquifer, named for the average depth at which they occur. In addition, portions of the overlying Dune Sand deposits along the coast are saturated and are referred to as the Dune Sand Aquifer, although most of the water is saline to brackish due to proximity with the ocean and seawater intrusion and is consequently not used as a water supply. An extensive clay layer, known as the Fort Ord-Salinas Valley Aquiclude, underlies the dune sand deposits in the Main Garrison area. Beneath the Fort Ord-Salinas Valley Aquiclude in the Main Garrison area is the 180-Foot Aquifer, the shallowest of the aquifers in former Fort Ord used for water supply. The aquiclude is absent along a strip near the coast and in an area extending south from East Garrison. In these areas, recharge from the surface can percolate down to the 180-foot Aquifer. Beneath the 180-Foot aquifer are two deeper aquifer zones referred to as the 400-foot and 900-foot Aquifers.

Historically, most pumpage from former Fort Ord and the City of Marina came from the 180-Foot Aquifer. By the early 1980s, seawater intrusion caused by pumping extended approximately 2.5 miles into the 180-Foot Aquifer and 1.2 miles into the 400-Foot Aquifer in the vicinity of Marina. The 2013 estimates of seawater intrusion within the 180-Foot and 400-Foot Aquifers indicate that seawater has intruded to approximately 8 miles and 3.5 miles inland, respectively. Groundwater has been historically extracted from the 180-Foot and 400-Foot Aquifers; the Deep Aquifer, the 900-foot Aquifer, has experienced little development except near the coast where it is pumped to provide a replacement source of groundwater for the seawater intruded areas of the 180- and 400-Foot Aquifers.

The Corral de Tierra Subbasin comprises the eastern portion of the former Fort Ord and other incorporated areas. The eastern part of former Fort Ord is hilly and lacks the surficial dune deposits that cover the western part of former Fort Ord.

Although the geological formations of the eastern part of former Fort Ord are less permeable than the sands of the western part, they are capable of supporting water wells. The recharge that occurs in the eastern part of former Fort Ord contributes to groundwater inflow to the western part.

3.10.5.2. Seaside Basin

The southwest part of former Fort Ord overlies the Seaside Basin. The Seaside Basin is further subdivided into the Northern and Southern Subbasins by the Laguna Seca Anticline and a segment of the Old Terrace Fault, which restrict groundwater flow between the subbasins. The Seaside Basin consists of three aquifers: the surficial Aromas Sand (which includes the Dune Sands), a shallow aquifer, and a deep aquifer. The surficial Aromas Sand Aquifer is unsaturated in many places and, therefore, not directly used to produce potable groundwater as its proximity to the Pacific Ocean makes the water saline to brackish. In 2012, the Sand City desalinization plant produced 208.37 acre-feet (af) of potable water from this saline to brackish unit.

The two subbasins are further subdivided into coastal and inland subareas with the division boundary just west of General Jim Moore Boulevard. The former Fort Ord overlies most of the northern part of the Seaside Basin and supplies a substantial amount of total recharge to the basin.

Groundwater pumping in the Seaside Basin provides water supply for municipal, irrigation (primarily golf courses), and industrial uses. Most of the remaining pumpage is by municipal wells in Seaside and Sand City. Wells produce approximately 20 percent of the water supply for the Monterey Peninsula. The Shallow Dune/Aromas Sand Aquifer is not used for the production of potable groundwater; historically, California American Water Company (Cal-Am) extracted a limited amount of water from two wells in Sand City that were eventually abandoned in the early 1970s because of seawater intrusion. Historical and persistent low groundwater elevations caused by pumping led to concerns that seawater intrusion may threaten the Seaside Basin's groundwater resources. In 2006, an adjudication led to the issuance of a Monterey County Superior Court decision that created the Seaside Basin Watermaster (Watermaster). The court concluded that groundwater production within the Seaside Basin exceeded the "Natural Safe Yield" and, therefore, a physical solution was established (i.e., injection well replenishment) to prevent seawater intrusion and its deleterious effects on the Seaside Basin.

3.10.6. Surface Water Quality

Water quality is primarily a function of land uses in the project area. Pollutants and sediments are transported via runoff from the watershed into surface water features, such as streams, rivers, storm drains, and reservoirs. Local land uses influence the quality of the surface water through point source discharges (i.e., discrete discharges such as an outfall) and nonpoint source discharges (e.g., storm runoff). Land uses in the action area include industrial, agricultural, rural, and urban. Some of the water bodies are designated as impaired for pollutants such as pathogens, pesticides, and nutrients (please refer to Section 3.10.2.1, *Federal Regulatory Setting*, for more details). Data from local monitoring programs are used to discuss water quality in the project area for the pertinent watersheds and water bodies.

Surface water quality of drainage channels within the base varies with the seasons. During the first strong rains of the season, ditches and storm drainage systems draining the urban areas of the base receive the highest concentration of urban pollutants, such as oils, grease, heavy metals, pesticide residues, and coliform bacteria. Winter storms also contribute to erosion and gullyng in some areas, particularly the drainage of the eastern half of the base. Surface erosion can cause high concentrations of suspended sediment loading in streams causing increased siltation, turbidity, and accompanying high total dissolved solids.

The pollutants in the Salinas River watershed include unionized ammonia, low dissolved oxygen, nitrate, and pesticides. The water quality monitoring efforts of the Elkhorn Slough National Estuarine Research Reserve (ESNERR) from 1988 to 1996 reported extraordinarily high nitrate concentrations in the lower Salinas River (Caffrey et al., 1997). Pesticides and priority organics were also found at high levels in the Salinas River watershed. The Central Coast Watershed Studies

(CCoWS) program monitored the lower Salinas watershed before and during a storm event in March 2003 and found DDT²s and dieldrin (Kozlowski et al., 2004).

Numerous legacy pesticides³ and currently used contaminants such as dieldrin, DDTs, pesticides, polynuclear aromatic hydrocarbons (PAHs), PCBs, and bacteria are found in Monterey Bay. The largest sources of the contaminants are agricultural runoff into the San Lorenzo, Pajaro, Salinas, and Carmel Rivers. Seasonal data, collected by the Central Coast Long-term Environmental Assessment Network (CCLEAN), demonstrate that most of the contaminants wash into Monterey Bay during the wet season when the river flows are the greatest (CCLEAN, 2007). From 2001 to 2006, numerous exceedances of water quality criteria and human health alert levels were observed in Monterey Bay due to contaminants (CCLEAN, 2007). Nearshore waters of Monterey Bay exceeded the California Ocean Plan (please refer to Section 3.10.2.1, *Federal Regulatory Setting*, for more details) standards for PCBs and have been listed as “impaired.”

3.10.7. Groundwater Quality

Former industrial, commercial, and military activities in the region have resulted in soil and groundwater contamination from spills, leaking underground tanks, unlined chemical disposal sites, and inadvertent disposal of chemicals. In particular, groundwater in the aquifers located beneath the former Fort Ord military base, are contaminated with volatile organic compounds, mostly TCE and carbon tetrachloride. Please refer to Section 3.9, *Hazards and Hazardous Materials*, for more information on groundwater contamination. The groundwater quality discussion below provides a general overview of the water quality issues that apply to the SVGB and Seaside Basin.

3.10.7.1. SVGB Water Quality

In general, groundwater quality in the SVGB is influenced by a number of factors including natural geochemical properties and flow within the different hydrogeologic formations, groundwater pumping and induced seawater intrusion, land use practices, and accidental releases of contaminants into the environment. For specific information regarding areas with contaminated soil and shallow groundwater, see Section 3.9, *Hazards and Hazardous Materials*. Historically, the groundwater basin has two major issues with groundwater quality for drinking water resources: seawater intrusion and nitrate contamination.

Seawater Intrusion

Extensive groundwater production in the Salinas Valley has resulted in overdraft conditions in the basin and induced seawater intrusion within the 180-Foot and 400-Foot Aquifers. Seawater intrusion in the Salinas Valley is typically inferred from chloride concentrations detected in groundwater monitoring and production wells, where concentrations that are greater than 500 milligrams per liter (mg/L) indicate seawater intrusion because these concentrations were above the previously established California Safe Drinking Water Act, Secondary Drinking Water Standards for drinking water (MCWRA, 2006). This drinking water standard was lowered to 250 mg/L in 2006.

The current estimates of seawater intrusion within the 180-Foot and 400-Foot Aquifers indicate that seawater had intruded approximately 8 miles and 3.5 miles inland, respectively, as of 2015, inferred from chloride concentrations greater than 500 milligrams per liter. The seawater intrusion has resulted in the degradation of groundwater supplies, requiring numerous urban and agricultural supply wells to be abandoned or destroyed. Seawater intrusion in the SVGB was first documented in 1946 when the State Department of Public Works (now known as Department of Water Resources) published Bulletin 52: Salinas Basin Investigation.

Additionally, both the SVGB and Seaside Basin are hydrologically connected to the ocean, thus providing a constant source of seawater recharge. Because groundwater elevations along the coast and directly inland have been at or below sea level in both groundwater basins, a landward groundwater gradient has developed and induced groundwater recharge from the ocean. The consequence of the overdraft conditions has led to degradation of groundwater quality along the coast within the SVGB, and concerns of potential future groundwater degradation within the Seaside Basin.

² DDT - Dichloro-Diphenyl-Trichloroethane, a synthetic pesticide banned in the US in 1972.

³ Legacy pesticides are pesticides that are no longer registered for use.

Nitrate Contamination

Nitrate contamination in the Salinas Valley was first documented in a report published by AMBAG in 1978. The SWRCB has twice documented that nitrate levels in the SVGB have impaired the beneficial use of the SVGB as a drinking water supply. In response to the identification of nitrate contamination, the Nitrate Technical Advisory Committee (NTAC) was formed by the MCWRA to examine nitrate in the SVGB and recommend a course of action, and as a result, MCWRA has prepared a nitrate management plan that is currently under implementation.

Other Chemicals of Concern

As part of a U.S. Geological Survey (USGS) Study (Kulongoski and Belitz, 2007), groundwater samples were analyzed for volatile organic compounds (VOCs), pesticides, pesticide degradation products, nutrients, major and minor ions, trace elements, radioactivity, microbial indicators, dissolved noble gases, and various naturally occurring isotopes. The results of the USGS Study are used to characterize the quality of untreated groundwater resources within the action area and provide insight to the overall trends in groundwater quality. In general, analytical results indicate that raw groundwater is of good quality with respect to the compounds analyzed in the study; however, elevated concentrations of hexavalent chromium were reported as exceeding the detection level reporting threshold of 1 microgram per liter ($\mu\text{g/L}$) in the groundwater quality data summary (Kulongoski and Belitz, 2007).

3.10.7.2. Seaside Basin Water Quality

Seawater Intrusion

The *Draft Water Year 2015 Seawater Intrusion Analysis Report of Seaside Basin, County of Monterey California*, prepared by Hydrometrics, WRI for the Seaside Basin Watermaster, December 2015 (Annual Report) (Hydrometrics WRI, 2015), addressed the potential for, and extent of, seawater intrusion in the Seaside Basin. Continued pumping in excess of recharge and freshwater inflows, pumping depressions near the coast, and ongoing seawater intrusion in the nearby Salinas Valley all suggest that seawater intrusion could occur in the Seaside Basin. Fortunately, no seawater intrusion was observed in existing monitoring wells. The Annual Report recommended continued monitoring and tracking of potential seawater intrusion.

3.11. LAND USE AND PLANNING

3.11.1. Introduction

The following section provides a detailed description of the land use and planning framework pertaining to the redevelopment of the former Fort Ord. This section identifies existing land uses, describes the overall projected development capacity for the former Fort Ord, and describes land uses within each jurisdiction. Since the Reuse Plan is the overarching planning document affecting the redevelopment of the former Fort Ord, a detailed discussion of each of the municipalities' General Plans is not provided. All General Plans for affected jurisdictions must be consistent with the Reuse Plan in accordance with Chapter 8 of the FORA Master Resolution with the exception of property transferred to BOT/CSUMB, UC, and State Parks (CSUMB and UC Campus Master Plans and State Parks General Plans are not subject to approval by FORA).

Property transferred to the CSU or the UC that is used for educationally-related or research-oriented purposes, and for property transferred to State Parks, are subject to the requirements of their applicable planning documents. These land use recipients are considered sovereign entities and are not subject to the requirements of the Reuse Plan, although they are encouraged to maintain consistency with the Reuse Plan to the extent feasible. For BOT/CSUMB, UC, and State Parks, proposed development projects are required to be consistent with their long range, master, or general plans (CSUMB 2007 Master Plan, 2009; UC MBEST Master Plan, 1996; and Fort Ord Dunes Preliminary Master Plan and EIR, 2004). Project consistency is determined during the project approval and environmental review processes with these entities acting as lead agencies under CEQA. These agencies have conducted environmental review for their plans within the former Fort Ord (CSUMB 2007 Master Plan EIR, 2009; Marina Municipal Airport EA/EIR, 1995; and Fort Ord Dunes Preliminary Master Plan and EIR, 2004).

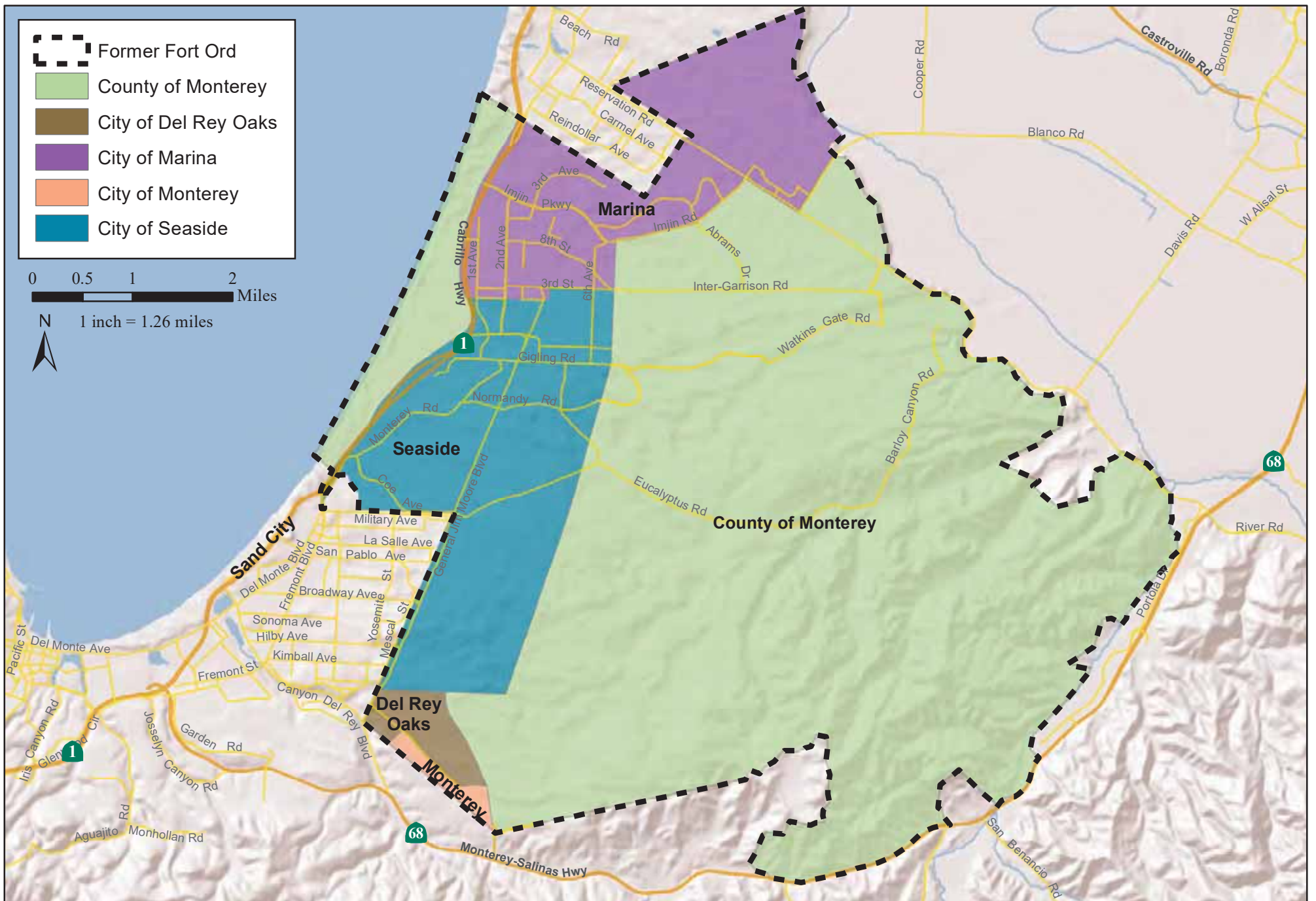
With the exception of BOT/CSUMB, UC, and State Parks, the Reuse Plan effectively replaces all environmental policies of the individual, adopted general plans of the local jurisdictions as they apply to former Fort Ord, so that consistency with the Reuse Plan is maintained. All future land use actions affecting development within the former Fort Ord are required to be subject to a consistency determination as required pursuant to Chapter 8 of the FORA Master Resolution. This section presents relevant land use information, including the 1997 Reuse Plan land use map, an updated land use map, which reflects the current Reuse Plan land use designations incorporating land use amendments that have been adopted since 1997, as well as pertinent information concerning pending major development projects. This information is provided for informational purposes in order to provide a regional context of land use and planning considerations pertinent to the former Fort Ord.

3.11.2. Regulatory Framework

3.11.2.1. FORA Reuse Plan

The Reuse Plan, which was adopted in June 1997, governs the redevelopment of the former Fort Ord. **Figure 3.11-1** provides a graphical representation of the jurisdictional boundaries of the former Fort Ord. The Reuse Plan assigns land use designations, as well as goals, policies, and objectives related to base reuse. The Reuse Plan identifies a range of land use categories, density standards, and permitted uses for land within the boundaries of the former Fort Ord. The Reuse Plan contains goals and objectives for the development of commercial, residential, institutional, and park/recreational uses within the former Fort Ord; these goals and objectives are based on key guiding principles, which include:

- creating a unique identity for the community around the educational institutions;
- reinforcing the natural landscape setting consistent with the character of the Peninsula;
- establishing a mixed use development pattern;
- providing diverse neighborhoods;
- encouraging sustainable practices; and
- providing regional design guidelines.



Title: **County and City Boundaries within the Plan Area**

File: County&CityBoundariesWithinPlanArea.mxd

Date: 08-31-17

Scale: 1 inch = 1.26 miles

Project: 2444



Monterey | San Jose

Denise Duffy and Associates, Inc.

Environmental Consultants Resource Planners

947 Cass Street, Suite 5
 Monterey, CA 93940
 (831) 373-4341

Figure

3.11-1

The Reuse Plan designates land uses within the former Fort Ord. Applicable land use designations include residential use designations, mixed use and commercial designations, retail uses, visitor serving/open space/recreation/ habitat management, institutional and public facilities, and community right-of-ways. **Figure 3.11-2** contains a graphical depiction of the land use map developed as part of the 1997 Reuse Plan. **Figure 3.11-3** contains an updated land use map. **Figure 3.11-4** provides a graphical depiction of future pending or approved developments within the former Fort Ord. These land use designations are described in **Table 3.11-1** below.

Table 3.11-1. FORA Reuse Plan Land Use Designations























General Land Use Designation	Development Intensity Description
Low Density Residential (SFD)	Up to 5 Du/Ac (dwelling units per acre) and average lot size of 8,000 sq. ft. and range 6,000 to 10,000 sq. ft. Overall density will range from 0 and 5 units per acre, mostly of larger detached homes. It is recommended no more than ten percent of the homes may consist of attached homes.
Medium Density Residential (SFD)	Up to 10 Du/Ac and average lot size of 6,000 sq. ft. and range 4,000 to 8,000 sq. ft. Overall density will range from 5 and 10 units per acre, mostly of larger detached homes. It is recommended that no more than 25 percent of the homes may consist of attached homes.
High Density Residential (MFD)	Up to 10-20 Du/Ac. This designation creates a transition from existing developed urban centers and lower density residential and institutional districts. Overall density will range from 10-20 units per acre.
Residential Infill Overlay	Up to 5-10 Du/Ac and average lot size range 4,000 to 5,000 sq. ft. This use is intended to encourage renovation and redevelopment in the existing Army-built residential neighborhoods. This designation also includes MFD housing type renovation and infill opportunities.
Planned Development Mixed Use	The use is intended to encourage the development of pedestrian-oriented community centers. They will contain a wide variety of residential detached and attached homes, commercial, various retail, professional office, cultural civic centers, parks, community centers, schools, churches, day care centers, transit centers, and entertainment uses. The typical development intensity for this use is a gross Floor Area Ratio (FAR) of .35 and housing density of up to 20 dwelling units per acre. The highest FAR (.35) has been targeted at the Marina Town Center and UC MBEST to reflect these key locations within the former Fort Ord and their potential to play a significant long-range role in the reuse of the base.
Office/R&D	The typical development intensity for this use is a gross FAR of 0.20. This is based on a net .25 to represent market-oriented development prototypes. A 20% allocation is provided for on-site roads and storm water management. The gross FAR is based on applying a net .25 FAR on the remaining land ($80\% \times .25 = .20$ FAR). This intensity of development will typically rely on surface parking. Some areas have been assigned higher FAR's to reflect the specific market segment or strategic location that will be able to attract more intensive development (.28 to .35 FAR). These intensities will generally rely on surface parking, though the higher end of the range could also result in some parking structures.
Business Park/Light Industrial	The typical development intensity for this use is a gross FAR of .20. This is based on a net .25 FAR to represent market-oriented development prototypes. A 20% allocation is provided for on-site roads and storm water management. The gross FAR is based on applying a net .25 FAR on the remaining land ($80\% \times .25 = .20$ FAR). This intensity of development will typically rely on surface parking. Some areas have been assigned lower FAR's to account for the presence of significant stands of oak trees, more rolling topography, or are retained as assumptions used in the January 1995 Fort Ort Reuse Infrastructure Study (FORIS) (.13 to .15 FAR).
Convenience & Specialty Retail	This type of retail will be encouraged in a more dispersed pattern to support the residential development patterns (see "+" symbol on Ultimate Development Map). It is an overlay designation preserving flexibility in their location. Retail and services are generally served with surface parking in a combination of off-street and on-street locations. The size of the convenience centers is expected to range from 10,000 to 100,000 sq. ft. The centers typically include: restaurants, personal service, and other services to meet the needs of residential and commercial districts.

General Land Use Designation	Development Intensity Description
Neighborhood Retail	Neighborhood retail will range from 100,000 to 300,000 sq. ft. with a permitted gross FAR of .25. These centers will typically include: personal and food services, supermarkets, discount stores, pharmacies, and small neighborhood-oriented shops and services. Neighborhood Retail Centers are intended to reinforce the role of the Villages at the former Fort Ord. Two locations have been designated as Neighborhood retail, one adjacent to the CSUMB campus at the southeast corner of the intersection of General Jim Moore Boulevard and Light Fighter Lane, and one at the connecting road between Coe Avenue and the proposed East boundary Road. In addition, neighborhood retail uses are permitted in the planned development mixed-use districts. It is expected that several neighborhood centers will be incorporated into this designation in the City of Marina.
Regional Retail	Regional retail will range from 300,000 to 1,000,000 sq. ft. with a permitted gross FAR of .25. These uses include: large-scale retail centers, food service, entertainment, and visitor-serving uses. The regional retail uses are located in proximity to convenient vehicular access from Highway 1 in the planning areas at the western end of the CSUMB campus: 1) the Marina Town Center (mixed-use corporate center); and 2) the Seaside University Planning Area (Gateway Regional Entertainment District).
Visitor Serving	Permitted uses include hotels, conference centers, restaurants, and golf courses. Each individual location will take on an appropriate size and character based on the setting. There are sufficient land resources to accommodate the distribution of hotel rooms in the Ultimate Plan within a low-rise building configuration. It is anticipated that most new hotel sites will also be associated with a golf course to enhance the operating performance of this visitor-serving land use.
Open Space/Recreation	This land use designation includes all park land which will be publicly owned, including Fort Ord Dunes State Park, regional parks, community parks, and neighborhood parks not identified in the land use concept but designated as permitted use in all districts. Permitted uses in this district include: habitat management; active and passive public parks; commercial recreation such as golf, equestrian centers, public amphitheaters, etc; educational facilities; and a limited amount of supporting convenience retail uses.
Habitat Management	This land use designation applies to all open space identified by the HMP as critical to survival of the natural communities and sensitive species. Limited uses include: ecological restoration and educational activities, and passive recreation such as hiking, nature study, horse and bike riding, and infrastructure services and facilities (water, power, and wastewater systems).
School/University	This land use applies to publicly owned and privately owned educational facilities, including such uses as primary and secondary schools, higher education classrooms, administrative offices, sport facilities, university housing, open space, and habitat management.
Public Facility/Institutional	This land use allows for light industrial, corporate and transit yards, public utilities and infrastructure, public training grounds, public offices, community colleges, youth camps, habitat management, and public aviation related uses.
Military Enclave	This designation identifies land retained by the U.S. Armed Forces for ongoing military related activities within the former Fort Ord boundary. This includes the POM Annex, military housing, schools, day care facilities, churches, community centers, reserve training centers, exchange retail activities, and motor pool activities.
Alternative High School Opportunity Site Overlay	This land use opportunity site identifies alternative general locations for a new high school in Marina.
Source: Reuse Plan, Volume 1, pgs. 104-107; see also Table 3.4-1 Permitted Range of Uses for Designated Land Uses	



For each of the land use designations, the Reuse Plan has developed a corresponding permitted intensity specifying the applicable number of dwelling units per acre for residential uses and FAR for commercial, mixed use, research and development (R&D), and industrial uses. As identified in the Reuse Plan, the intensity for other land uses may vary according to their use and location. Using this information, the Reuse Plan identified an ultimate development capacity for land uses within the former Fort Ord. The Reuse Plan identifies a range of land use categories, density standards, and permitted uses for land within the boundaries of the former Fort Ord. **Table 3.11-2** summarizes the ultimate land use capacity for Fort Ord based on the ultimate development plan contained in the Reuse Plan.

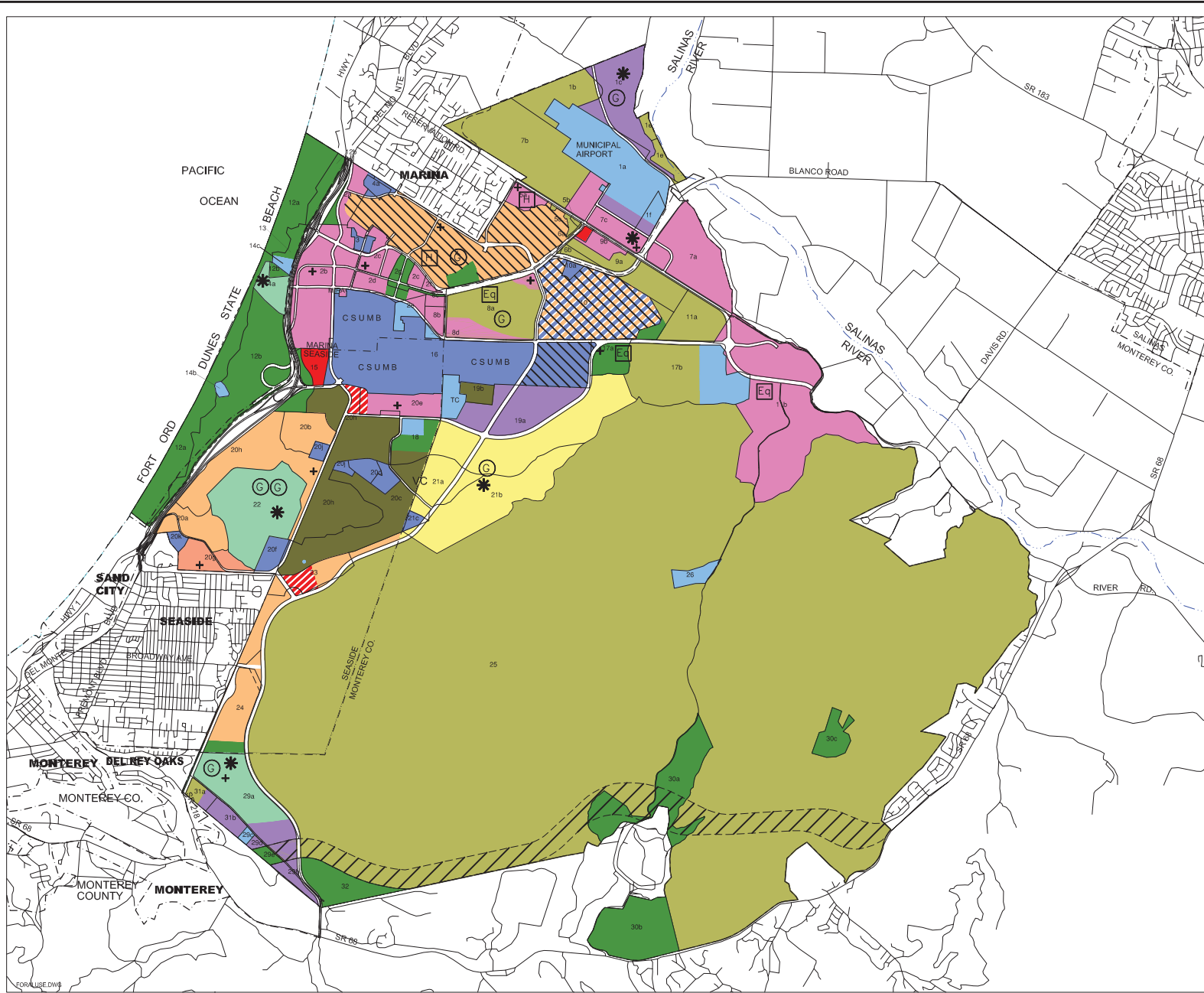
Land Planning	EDAW, Inc.
Market Analysis	EMC Planning Group, Inc.
Transportation Engineering	Sedway Kotin Mouchly Group
Civil Engineering	JHK and Associates
Fiscal Analysis	Reimer Associates
Habitat Planning	Angus McDonald Associates
Public Communications	Zander Associates
Community Development	The Ingram Group
	Resource Corps International

LEGEND:

-  SFD Low Density Residential
-  SFD Medium Density Residential
-  MFD High Density Residential
-  Residential Infill Opportunities
-  Hwy 68 Bypass ROW: Development with Restrictions
-  Planned Development Mixed Use District
-  Business Park/Light Industrial Office/R & D
-  Convenience Retail
-  Neighborhood Retail
-  Regional Retail
-  Visitor Serving
-  Golf Course Opportunity Site
-  Hotel Opportunity Site
-  Equestrian Center Opportunity Site
-  Open Space/Recreation
-  Habitat Management
-  School/University
-  University Medium Density Residential
-  Alternative High School Sites
-  Public Facility/Institutional
-  Military Enclave
-  Veterans Cemetery



SHEET TITLE:
**LAND USE CONCEPT
 ULTIMATE DEVELOPMENT**

 0 750 1500 3000 4500	 NORTH	SOURCE: Jones & Stokes, 1995 Reimer Associates (Pre-Project), 1995 Monterey County, 1995 EDAW, Inc., 1996	FIGURE: 3.3-1
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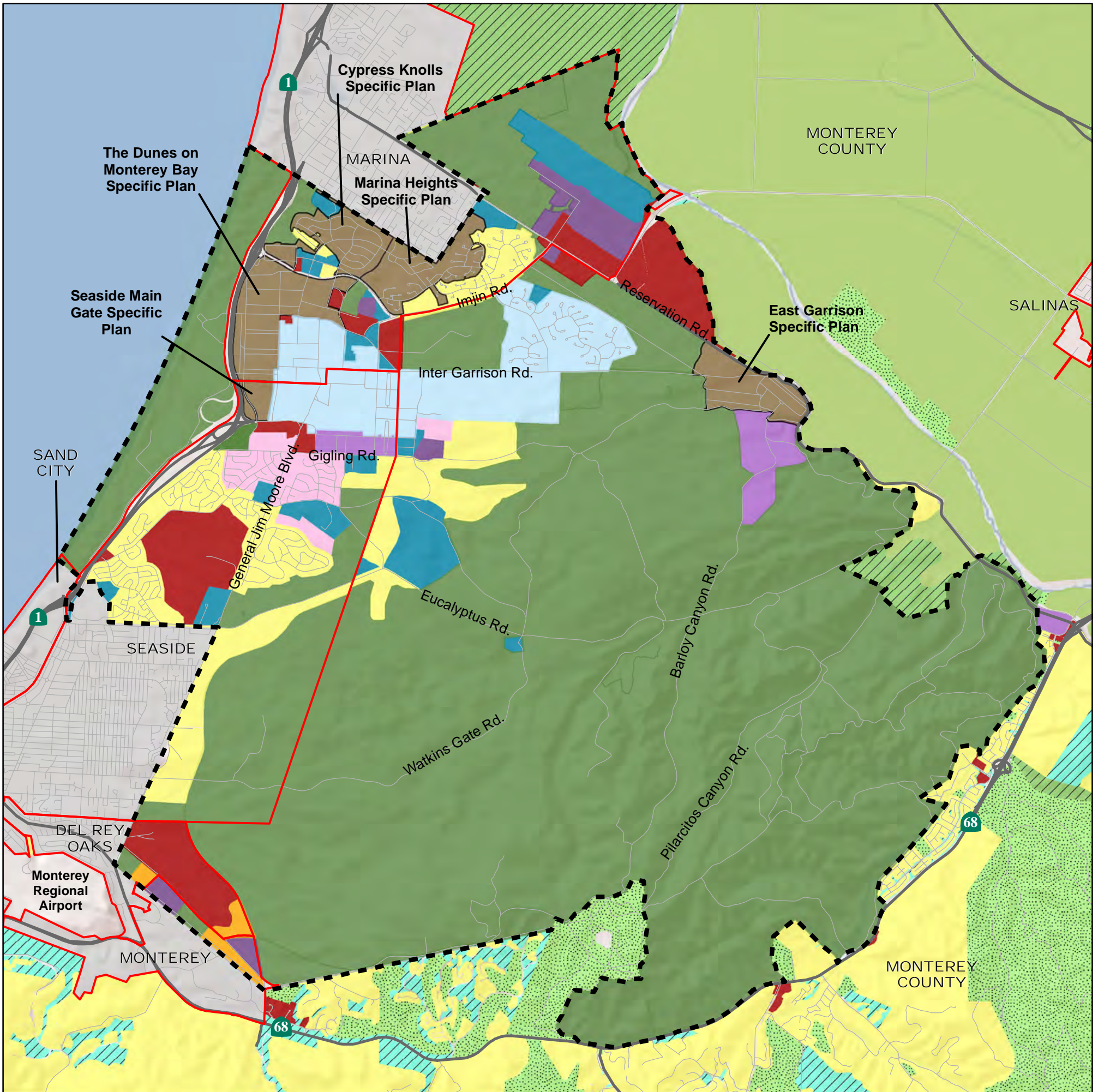


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Source: http://fora.org/Fig%203_3-1.pdf

	Title: Fort Ord Reuse Plan 1997 Land Use Designations	Date: <u>07-07-11</u>	 Monterey San Jose Denise Duffy and Associates, Inc. Environmental Consultants Resource Planners 947 Cass Street, Suite 5 Monterey, CA 93940 (831) 373-4341	Figure 3.11-2
	File: Fig 3.11-2 FO Reuse Plan 1997.pdf	Scale: <u>1 inch = 1.28 miles</u>		

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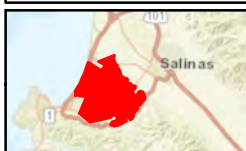
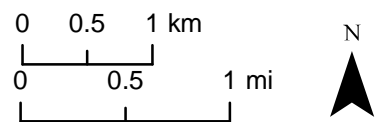
Legend

- Former Fort Ord
- City Limits
- Highways
- Roads
- Specific Plans
- CSUMB
- Office/Professional (*1)
- Commercial (*2)
- Industrial (*3)
- Residential (*4)
- Open Space (*5)
- Public Facilities/Institutional (*6)
- Military (*7)
- Mixed Use (*8)
- Farmlands (*9)
- Grazing Land (*10)
- Public/Quasi-Public (*11)
- Resource Conservation (*12)
- Urban/Developed (*13)

***Notes**

The land use classifications were obtained from applicable City and County General Plan maps for the former Fort Ord and nearby areas. As required pursuant to Chapter 8.0 of the FORA Master Resolution, all legislative land use decisions must be found consistent with the Fort Ord Base Reuse Plan. Land use data obtained from applicable general plans were used to produce this figure; all applicable land use data were reviewed for consistency with the Base Reuse Plan. For the purposes of clarity, jurisdiction-specific land use classifications were consolidated into a single classification system (e.g. commercial, residential, etc.). The following notes provide additional detail concerning the type of classifications used by each jurisdiction.

- | | | |
|--|---|--|
| <p>1) Office/Professional Includes:
City of Del Rey Oaks: Office-Professional</p> <p>2) Commercial includes:
City of Marina: Commercial-Multiple Use, Office/Research, Retail/Professional Services, and Visitor-Serving
City of Del Rey Oaks: General Commercial - Visitor and Neighborhood Commercial
City of Seaside: Community Commercial, Recreational Commercial, and Regional Commercial
County of Monterey: Commercial</p> <p>3) Industrial includes:
City of Marina: Industrial - Light Industrial/Service Commercial
City of Monterey: Light Industrial/Office Park
County of Monterey: Business Park/Light Industrial Office/Industrial/R&D</p> | <p>4) Residential includes:
City of Marina: Multi-Family Residential (15-35 dwelling units/acre), Single Family Residential (5 dwelling units/acre), and Village Homes (8 dwelling units/acre)
City of Seaside: High Density Residential and Low Density Single Family Residential
County of Monterey: Low Density Residential, Medium Density Residential, and Rural Density Residential</p> <p>5) Open Space includes:
City of Marina: Open Space-Parks & Recreation, UGP Open Space, and Golf Course
City of Monterey: Park
City of Seaside: Park and Open Space
County of Monterey: Open Space Recreation and Habitat Management</p> <p>6) Public Facilities includes:
City of Marina: Public Facilities-Education, Education (Proposed), Marina Municipal Airport, and Other Public Facilities
City of Seaside: Public/Institutional
County of Monterey: Public Facility/Institutional and School/University</p> <p>7) Military Includes:
City of Seaside: Military
County of Monterey: Military Enclave
City of Monterey: Office Park/Future Hwy 68</p> | <p>8) Mixed Use Includes:
City of Seaside: Mixed Use
County of Monterey: Planned Development/Mixed Use</p> <p>9) Farmlands Includes:
County of Monterey: Farmlands (40-160 ac Min)</p> <p>10) Grazing Land Includes:
County of Monterey: Permanent Grazing (10-60 ac Min) and Rural Grazing (10-60 ac Min)</p> <p>11) Public/Quasi-Public Includes:
County of Monterey: Public/Quasi-Public</p> <p>12) Resource Conservation Includes:
County of Monterey: Resource Conservation</p> <p>13) Urban/Developed Includes:
City of Del Rey Oaks outside former Fort Ord
City of Marina outside former Fort Ord
City of Monterey outside former Fort Ord
City of Seaside outside former Fort Ord
City of Salinas
Sand City</p> |
|--|---|--|



Title: **Plan Area & Surrounding Area Land Use Map**

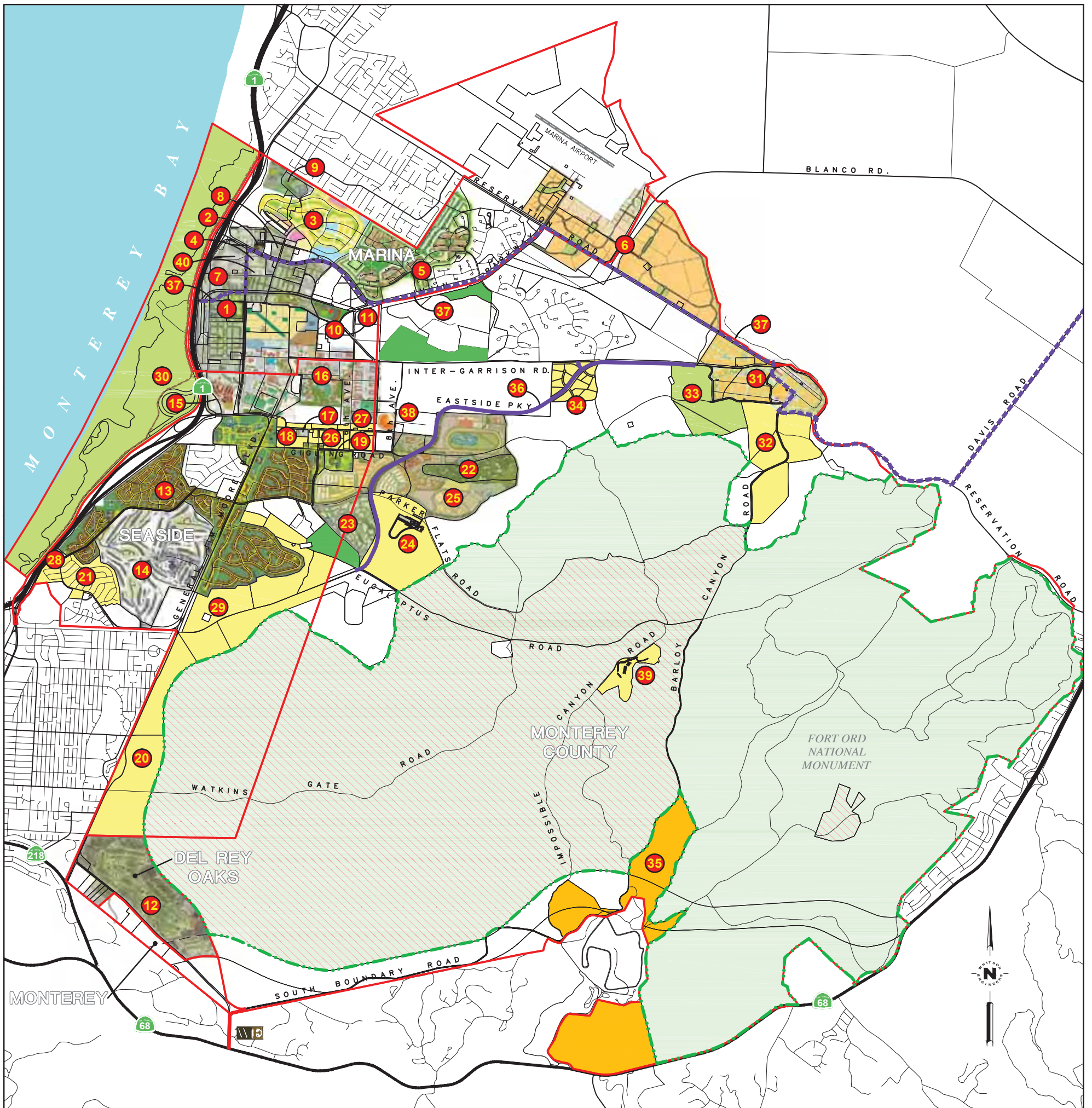
File: Land Use Map 20191022.mxd

Date: 10-22-2019
 Scale: 1 inch = 0.92 miles
 Project: 2444 - FORA HCP



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Figure
3.11-3



FT. ORD - MAJOR DEVELOPMENT PROJECTS

IDENTIFIED PROJECTS

City of Marina

- 1 The Dunes on Monterey Bay **WE**
- 2 Imjin Office Park **WE**
- 3 Cypress Knolls
- 4 CHOMP Marina Campus **WE**
- 5 Marina Heights
- 6 Marina Airport Business Park **WE**
- 7 Veterans Affairs Medical Center **WE**
- 8 MPC Educational Center - Marina
- 9 Marina High School **WE**
- 10 Promontory Student Housing **WE**
- 11 8th Street Realignment **WE**
- 40 Springfield Suites (Marriott) Hotel

City of Del Rey Oaks

- 12 Del Rey Oaks Development Area **WE**

City of Seaside

- 13 Army Replacement Housing
- 14 Seaside Resort
- 15 The Projects at Main Gate
- 16 CSUMB **WE**
- 17 MPC Educational Center - Seaside
- 18 Surplus II Planning Area
- 19 Department of Defense Center **WE**
- 20 Seaside East
- 21 Seaside Highlands **WE**
- 22 Monterey Downs
- 23 California Central Coast Veterans Cemetery **WE**
- 24 MPC EVOC/Firefighter Training Facility **WE**
- 25 Monterey Horse Park **WE**
- 26 Monterey Bay Eco-Hostel **WE**
- 27 Monterey Bay Charter School **WE**
- 28 Seaside Assisted Living
- 29 Monterey Bay Trade & Convention Center **WE**

State Parks

- 30 Fort Ord Dunes State Park **WE**

County of Monterey

- 31 East Garrison I **WE**
- 32 East Garrison II
- 33 Youth Camp
- 34 Inter-Garrison Office Park **WE**
- 35 Laguna Seca **WE**
- 36 Eastside Parkway **WE**
- 37 Multimodal Corridor
- 38 Sun Edison Solar Facility **WE**
- 39 M.O.U.T. Facility **WE**

WE SIGNIFIES WHITSON ENGINEERS INVOLVEMENT

This map is for information only. Whitson Engineers collected information shown hereon from various sources and does not guarantee the accuracy or completeness of the content. Contact individual agencies/developers for the most current land use plans.

May 22, 2015

M:\Monterey\General Marketing\Project Specific Promotions\Fort Ord\Fort Ord Projects.dwg | 11417 | May 22, 2015 - 10:46am

2000 0 2000 4000 6000 Feet
SCALE: 1" = 2000'

WE WHITSON ENGINEERS
Source: 9699 Blue Larkspur Lane ■ Suite 105 ■ Monterey, CA 93940
831 649-5225 ■ Fax 831 373-5065
CIVIL ENGINEERING ■ LAND SURVEYING ■ PROJECT MANAGEMENT



Title: **Pending and Future Approved Projects**
File: Projects Map.pdf

Date: 6-23-2015
Scale: N/A
Project: 2444 - FORA HCP



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Figure
3.11-4

Table 3.11-2. Land Use Capacity*

Land Use	Acres	Percent (total area)	Dwelling Units/Rooms	Square Feet
CSUMB (25,000 FTE) ^{1,2}	1,292	5%	8,193	N/A
POM Annex ³	782	3%	1,590	N/A
Residential/Housing	2,042	7%	12,449	N/A
Business Park/ Light Industrial/ Office/ R&D	1,346	5%	N/A	12,036,000
Retail	183	1%	N/A	1,968,000
Visitor Serving	-	-	-	-
Hotels (rooms)	80	0%	1,750	- ⁴
Golf	678	2%	N/A	N/A
Other	50	-	-	-
Parks & Open Space	-	-	-	-
Fort Ord Dunes State Park	991	4%	40 rooms	N/A
Other	1,023	4%	-	-
Public Facilities	1,072	4%	-	- ⁵
Habitat Management	17,179	61%	-	-
Areawide ROW	1,161	4%	-	-
Total:	27,879	100%	22,322 units 1,790 rooms	14,004,000

SOURCE: FORA Reuse Plan (1997); see table 3.3-1 Summary Land Use Capacity: Ultimate Development

*The "Land Use Capacity" is a projected development yield based on anticipated market absorption, land characteristics, and community vision. The capacities indicated are intended to provide a general guide to assist in land resource management and infrastructure commitments and financing. The precise mix of uses is expected to vary in response to market conditions and FORA actions. The aggregate totals provide a "not-to-exceed envelope" of development within the former Fort Ord.

1) FTE = Full Time Equivalent student enrollment
2) Assessment generated on employees and students, not square footage
3) Existing retail assessed on basis of existing employees
4) Assessment generated on basis of rooms, not square footage
5) Assessment generated on basis of facilities, not square footage
6) Accommodates 1 new 18-hole golf course and the redevelopment of 1 18-hole golf course to industrial use

3.11.2.2. General Plan(s)

The former Fort Ord is located within the boundaries of multiple jurisdictions, including the incorporated cities of Monterey, Marina, Seaside, and Del Rey Oaks, as well as unincorporated areas of the County of Monterey. As a result, numerous goals, policies, and objectives of each of the municipalities' General Plans are applicable to portions of the former Fort Ord. While these General Plans are applicable to development activities undertaken within these municipalities, the overarching planning document affecting the redevelopment of the former Fort Ord is the Reuse Plan. For this reason, an exhaustive discussion of each of the applicable General Plans is not provided. Further, Chapter 8.0 of the FORA Master Resolution, which was adopted in March 1997, requires that each land use agency submit all legislative land use decisions affecting property in the former Fort Ord to FORA for review. As part of this process, FORA is responsible for reviewing legislative land use actions to determine consistency with the Reuse Plan. As described previously, BOT/CSUMB, UC, and State Parks are considered sovereign entities and are not subject to the requirements of the Reuse Plan. All developments within these areas are subject to the applicable planning and environmental considerations contained in their respective general plan(s), master plan(s), and other planning-related documents.

This EIS/EIR acknowledges that land use within the various jurisdictions may not reach the densities approved by the Reuse Plan and revisions to the planning documents will occur over the Draft HCP's 50-year permit term. For example, future revisions to planning documents may result in more open space or recreational uses and less development base-wide; however, with the exception of those mentioned above, revisions to most planning documents must be determined consistent with the Reuse Plan and future revisions to planning documents are unknown. Therefore, for the purposes of this analysis, the land use designations from the approved Reuse Plan are used in this EIS/EIR.

3.11.3. Land Use Context

3.11.3.1. Former Fort Ord

The approximately 28,000-acre former Fort Ord is located within portions of the jurisdictional boundaries of the incorporated cities of Marina, Del Rey Oaks, Seaside, Monterey, and unincorporated areas of the County. The former Fort Ord is bounded by the City of Marina and unincorporated areas of the County to the north; Monterey, Seaside, and Del Rey Oaks to the south; Sand City, Seaside, and Monterey on the west; and unincorporated areas of the County on the east. The former Fort Ord consists primarily of undeveloped land formerly used for military training and open space; approximately 23,000 acres is considered undeveloped. Development within the former Fort Ord at the time of base closure was primarily concentrated in three (3) major areas, including the former Main and East Garrison areas and the Marina Municipal Airport. Approximately 5,000 acres of the base was developed at the time of base closure.

3.11.3.2. City of Marina

Approximately 3,361 acres of the former Fort Ord are located within Marina, which is located immediately north of the former boundaries of Fort Ord, as shown in **Figure 3.11-1**. The area of former Fort Ord located in the City of Marina accounts for approximately 55% of the total surface area of the city. Single-family residential land uses are the predominant land use within Marina, although the city is currently in the process of implementing a number of development projects that would increase commercial, industrial, and other non-residential land uses. According to the 2010 Census, the City of Marina has a population of 19,718 persons.

Portions of the former Fort Ord located within Marina include the Marina Municipal Airport (formerly Fritzsche Army Airfield), former military-era residential neighborhoods (Abrams, Preston, and Patton housing projects), and areas designated for habitat management. The Reuse Plan divided the portions of Marina within the former Fort Ord into four (4) distinct planning areas: 1) CSUMB Planning Area; 2) the Airport; 3) Existing Marina Neighborhoods; and, 4) the Town Center. The Reuse Plan identified specific development assumptions and capacity projections for each of these planning areas. In addition, the Reuse Plan also identified several visitor serving/recreational opportunities sites within Marina.

According to the Reuse Plan, approximately 594 acres in Marina are designated for residential land uses; 594 acres are designated Medium Density Residential (5-10 DU's/Acre) of which 559 acres are considered an opportunity area for residential infill. A total of 1,094 acres are designated for Planned Development Mixed Use; this land use designation allows up to 20 dwelling units per acre and/or a FAR of .35. An additional 271 acres are designated as business park/light industrial. Three (3) sites are designated with a convenience retail overlay. Visitor serving uses, which include two (2) golf course sites and two (2) hotel opportunity sites, are identified in this portion of Fort Ord. Open space/recreational land uses comprise 90 acres and additional 170 acres are designated for habitat management. Two-hundred-sixty-five acres are designated for school/university uses with two (2) potential alternative high school sites; an additional 391 acres are identified for institutional/public facility uses.

3.11.3.3. City of Seaside

Approximately 4,122 acres of the former Fort Ord are located within Seaside. Seaside is located near the southern end of Monterey Bay, bordered by the Cities of Monterey and Del Rey Oaks to the south, Sand City to the west, and portions of the former Fort Ord to the east and north. The primary land use within Seaside is single-family housing, which accounts for almost 50% of the surface area of the city outside of the former Fort Ord. CSUMB, which is located within the former Fort Ord, is also located within the City of Seaside. According to the 2010 Census, the City of Seaside has a population of 33,025 persons

The Reuse Plan divided the portions of Seaside within the former Fort Ord into three (3) distinct planning areas: 1) CSUMB Planning Area; 2) University Planning Area; and, 3) Seaside Residential Planning Area. The Reuse Plan identified specific development assumptions and capacity projections for each of these planning areas. Each planning area is divided into distinct planning districts; these districts are intended to promote unified and cohesive development

within certain specified areas. According to the Reuse Plan, the CSUMB Planning Area, which consists of approximately 322 acres, is planned for academic, administrative, student housing, and other university support facilities. The University Planning Area, which consists of four (4) planning districts, is intended to accommodate gateway regional entertainment uses, POM Annex Retail uses, and university oriented uses (i.e. residential, retail, public facilities, etc.). The Residential Planning Area, which includes five planning districts, is intended to promote a new golf course community, visitor-serving uses, residential development, military housing, and recreational uses.

According to the Reuse Plan, approximately 775 acres in Seaside are designated for residential land uses; 751 acres as Medium Density Residential (5-10 DU's/Acre) and 24 acres as High Density Residential (10-20 DU's/Acre). A total of 99 acres are planned for Planned Development Mixed Use. Retail land uses are designated on approximately 98 acres; 54 acres are designated for neighborhood retail and an additional 44 acres for regional retail. Six (6) convenience retail overlay sites are also planned in this portion of the former Fort Ord. Visitor serving uses, which include two (2) golf course sites and one (1) hotel opportunity site, are designated on approximately 375 acres. Open space/recreational land uses occur on 113 acres and an additional 932 acres are planned for habitat management. Four-hundred-seventy-two acres are designated for school/university uses; an additional 59 acres are designated for institutional/public facility uses. The remaining 713 acres of the City of Seaside within the former Fort Ord are designated as a military enclave.

3.11.3.4. City of Del Rey Oaks

The City of Del Rey Oaks is situated along the southern boundary of the former Fort Ord. Highway 218 is the major transportation corridor linking Del Rey Oaks with the Monterey Peninsula and Highway 1, as well as Highway 68. Del Rey Oaks is primarily a residential community with single-family residential uses being the dominate land use. Commercial development is primarily limited to the Highway 218 corridor. The Monterey Peninsula Airport is located on the southern boundary of Del Rey Oaks in unincorporated areas of the County of Monterey. According to the 2010 Census, the City of Del Rey Oaks has a population of 1,624 persons.

At the time the Reuse Plan was prepared, the City of Del Rey Oaks was in the process of expanding their Sphere of Influence (SOI) to include portions of the former Fort Ord located east of General Jim Moore Boulevard and north of Highway 218. At the time, the City was meeting with Local Agency Formation Commission (LAFCO) representatives to annex Fort Ord Polygons 29a, 31a, and 32b, which are identified in the Reuse Plan as part of the County of Monterey South Gate Planning Area. The 274-acre South Gate Planning Area includes three (3) separate districts that are designated for office/R&D and recreational uses, as well as visitor-serving uses, including a hotel and golf course opportunity site. Fort Ord Polygons 29a, 31a, and 32b have since been annexed into the City of Del Rey Oaks and are planned as a future mixed use development consisting of residential, commercial, recreational, and visitor-serving uses.

3.11.3.5. County of Monterey

The County consists of approximately 2,127,400 acres (3,324 square miles) of which public and quasi-public uses, including military installations, natural resource management areas (i.e. U.S. Bureau of Land Management, Los Padres National Forest, etc.), recreational/open space uses, educational uses, and transportation-related infrastructure, account for the largest category of existing land use aside from agriculture. Agriculture accounts for more than 60% of the total land area of unincorporated areas of the County of Monterey. According to the 2010 County General Plan, approximately 4.8% of the County, including the incorporated cities, is developed with residential, commercial, and industrial land uses. The County, including the incorporated cities, has a population of 415,057 persons according to the 2010 Census.

The inland area of unincorporated County is divided into nine (9) planning areas with adopted Area Plans or Master Plans that contain supplemental policies. Policies specific to the former Fort Ord are located within the Fort Ord Master Plan (FOMP), which is in the Greater Monterey Peninsula Area Plan (GMPAP). The GMPAP consists of approximately 96,734 acres, which includes the unincorporated communities of Pebble Beach (non-coastal area only) and portions of Carmel Valley and the Highway 68 Corridor; with the FOMP area comprising of approximately 19,138 acres. Development activities located within unincorporated areas of the County in the former Fort Ord are governed by the 1982 General Plan, as amended to include the 2001 FOMP, which was adopted by the County and determined by FORA to be consistent with the Reuse Plan. The County has since adopted a 2010 General Plan that includes a revised FOMP.

The County submitted the 2010 County General Plan with the revised FOMP to FORA for consistency review, and a motion at FORA to find it consistent with the 1997 Base Reuse Plan failed on a tied vote. Thus, the 2001 FOMP remains in effect in the unincorporated Monterey County area of Fort Ord. The GMPAP also includes an area of the former Fort Ord, located west of Highway 1, designated within the Coastal Zone.¹ However, this portion is not subject to the FOMP.

The Reuse Plan divided the portions of unincorporated Monterey within the former Fort Ord into seven (7) distinct planning areas. These areas include 1) FODSP; 2) Reservation Road Planning Area; 3) Eucalyptus Road Planning Area; 4) South Gate Planning Area; 5) York Road Planning Area; 6) BLM Habitat Management/Regional Recreation Area; and 7) University Planning Area. The South Gate Planning Area has, however, since been annexed into the City of Del Rey Oaks; please refer to the discussion above for more information. In addition, a portion of the York Road Planning Area has been annexed into the City of Monterey. Each planning area is further divided into distinct planning districts; these districts are intended to promote unified and cohesive development within certain specified areas. For more detailed information concerning each of the planning areas and their respective planning districts, please refer to the 1997 Reuse Plan.

According to the land use plan within the Reuse Plan, approximately 1,336 acres in unincorporated areas of the County's portion of the former Fort Ord are designed for residential land uses; 924 acres are designated for Low Density Residential (1-5 DU's/Acre) and 412 acres for Medium Density Residential (5-10 DU's/Acre). The Reuse Plan identified that approximately 555 acres are suitable for residential infill. A total of 1,024 acres are designed for Planned Development Mixed Use. Office/R&D are designated on approximately 404 acres. Thirteen sites are designated with a convenience retail overlay. Visitor serving uses, which include two (2) golf course sites, three (3) hotel opportunity sites, and three (3) equestrian opportunity overlay sites are designated on approximately 169 acres.

3.11.3.6. City of Monterey

Monterey includes numerous attractions that draw millions of tourists every year to the region. These attractions include Monterey's historic Presidio, old Cannery Row, the Monterey Bay Aquarium, and other visitor serving uses. Monterey is situated on the Monterey Bay and is bounded by Del Monte Forest on the south, the Pacific Ocean on the north, Pacific Grove on the west, and unincorporated areas of the County of Monterey on the east. The Monterey Peninsula Regional Airport is located east of Monterey. Monterey covers 8.4 square miles of land area, or 5,382 acres. Approximately 3.5 square miles of water area in Monterey Bay is also within the city limits. The single largest land use category in Monterey is residential. Approximately 20 percent of the land in Monterey is owned by other governmental agencies. Monterey, according to the 2010 Census, has a population of 27,810 persons.

Monterey shares a boundary with the former Fort Ord along Fort Ord's southern most extent. In 1983, Monterey passed a resolution to expand their SOI to include the area between South Boundary Road and Ryan Ranch consisting of Fort Ord Polygons 29b, c, d, and e; at the time that the Reuse Plan was adopted, Monterey had not completed a SOI expansion and annexation of Fort Ord polygons. These polygons were included in the unincorporated area of the County and are referred to as the York Road Planning Area. This area was identified as the future location of an office park/R&D district, community park, and Monterey corporation yard. Polygon 29e was identified as part of the future Highway 68 Bypass ROW. Approximately 138 acres of the York Road Planning Area were annexed into Monterey in 2003. Monterey has designated this area for future industrial use.

3.11.3.7. California State University Monterey Bay

The CSUMB campus is located on portions of the former Fort Ord within the cities of Seaside and Marina, and unincorporated areas of the County. The BOT/CSUMB was given sovereign redevelopment authority over approximately 1,292 acres (increased to 1,396 acres with land acquisition) of the former Fort Ord. BOT/CSUMB's redevelopment authority over campus development, as an agent of the State of California, supersedes local jurisdictions.

¹ There is no adopted LCP for the portions of the former Fort Ord that are located in the coastal zone.

In 2007, CSUMB prepared a Master Plan Update to its 1997 Master Plan. The Master Plan Update identifies existing land uses and provides the vision framework for the ultimate buildout of CSUMB. The Master Plan Update identifies land uses, circulation patterns, and provides guidelines for future site development. The Master Plan Update anticipates on-campus housing, recreational opportunities, academic structures, and administrative uses. The Master Plan Update anticipates that ultimate campus buildout will occur over three planning horizons.

The total development over the three planning horizons was projected to include: 1) 897,000 to 1,177,000 square feet of academic, student, and support services; 2) 5,732 beds of student housing and 1,778 faculty/staff units for a total of 11,066 total beds; and, 3) 220,000 to 260,000 square feet of structured parking. The 2007 Master Plan Update anticipates that CSUMB will have a maximum 8,500 FTE on-campus enrollment and 3,500 FTE distance learners. The 2007 Master Plan Update anticipates a significantly lower on-campus enrollment rate than considered in the 1997 FORA Reuse Plan. The 2007 Master Plan Update provides the framework for the development of CSUMB's campus.

CSUMB has initiated a process to update its 2007 Campus Master Plan. CSUMB has prepared a Draft Comprehensive Master Plan that envisions the future of the campus as it grows over the next 20 years. The proposed Master Plan program outlines the space and facility needs for the campus' academic, student life, administration, residential, athletics, recreation, and support functions. It includes the projects identified in the CSUMB's 5-Year Capital Improvement Program 2016/2017 through 2020/2021, plus the additional space and facility needs to support planned growth to 12,700 FTE students and associated growth to 1,490 FTE faculty and staff. As there were approximately 6,731 FTE students on campus in 2015–2016, the proposed Master Plan would increase enrollment by 4,200 FTE students over the existing on-campus enrollment ceiling of 8,500 FTE students from the adopted 2007 Master Plan, and by approximately 5,969 FTE students over existing enrollment levels.

3.11.3.8. California State Parks – Fort Ord Dunes State Park

The FODSP is situated along the coastal margins of the former Fort Ord on approximately 990 acres and is managed by the State Parks for habitat conservation and recreational purposes. In 2004, the State Parks prepared a General Plan for the park in order to address the management of on-site resources in a comprehensive manner. The General Plan divided the park into five (5) different zones: NRMZ, 8th Street Zone, 1st Street Zone, Storage Bunker Zone, and Park Support/Administrative Zone. The General Plan included a description of potential uses and activities that might occur within each of the zones. The following is a brief description of each of the zones and anticipated future activities:

- NRMZ (approximately 782 acres): potential uses include habitat preservation and restoration, trail uses, nature study and observation, sightseeing, beach use, emergency/operational access, and interpretation of park resources.
- 8th Street Zone (approximately 30 acres): potential uses include walking/trail use, nature study and observation, sightseeing, pedestrian beach access, picnicking, parking, interpretation, visitor arrival and orientation, emergency/operational access, and habitat preservation/restoration.
- 1st Street Zone (approximately 45 acres) potential uses include walking/trail use, nature study and observation, sightseeing, parking, interpretation, visitor arrival and orientation, emergency/operational access, and habitat preservation/restoration.
- Storage Bunker Zone (approximately 80 acres): potential uses include group and family camping, walking/trail use, nature study, sightseeing, pedestrian beach access, parking, emergency/operational access, storage, and habitat preservation/restoration.
- Park Support/Administrative Zone (approximately 25 acres): this zone may include administrative support, information/orientation (east of Highway 1 only), park operations, overnight lodging (east of Highway 1 only), and habitat preservation/restoration.

3.12. NOISE

3.12.1. Introduction

This section describes the noise environment in and around the former Fort Ord. The former Fort Ord has been the subject of extensive studies which have included evaluations and descriptions of general noise characteristics in the Plan Area. This discussion is based, in part, on information provided in the Volume 4 of the Reuse Plan. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS and Volume 4 of the Reuse Plan and its supporting technical appendices and other relevant documents as referenced.

3.12.2. Terminology

Noise is commonly defined as unwanted or objectionable sound. Excessive noise may cause adverse impacts, such as physical and/or psychological damage. Auditory effects include interference with communication and possible hearing loss. Non-auditory effects include physiological reactions, such as a change in blood pressure or breathing rate, sleep interference, adverse effects on human performance, and annoyance. The degree of impacts due to noise relies primarily on the amount and nature of the noise and the amount of ambient noise present before the impacts. As such, State and local regulations limit objectionable noise levels and describe land use compatibility standards. The following analysis describes the characteristics of sound, scales of measurement, the location of sensitive noise receptors, and the existing/future noise environment.

Three variables comprise sound measurements: magnitude, frequency, and duration. Different variations of magnitude, frequency, and duration can influence how noise will affect a population. The magnitude of sound is loudness. Variations in loudness are measured on the "decibel" (dB) scale. On this scale, noise at zero decibels is barely audible, while noise at 120-140 decibels is painful and may cause hearing damage. These extremes, however, are not encountered in commonplace environments.

Frequency is the number of times per second an object producing the sound vibrates. The human ear responds to sounds whose frequencies are in the range from 20 hertz (Hz) to 20,000 Hz. Within the audible range, subjective response to noise varies. People generally find higher pitched sound to be more annoying than lower pitched sounds. Noise is typically characterized using the A-weighted sound level or dBA. This scale gives greater weight to the frequencies that the human ear is most sensitive. **Table 3.12-1** demonstrates the correlation between the human response and the dBA sound levels.

Duration is how long a steady noise occurs. Annoyance due to noise is often associated with how long noise persists. To describe a noise environment adequately, it is necessary to quantify the variation in noise levels over time. Acoustical engineers often use a statistical approach that specifies observed noise levels that are exceeded over a given percentage of time. Engineers must also take into consideration that noise levels will decrease as distances from a noise source increases. Further, sensitive noise receptors, such as residences, schools, hospitals, transient lodging, nursing homes, churches, meeting halls, office buildings, and mortuaries, are more sensitive to noise levels and should be taken into consideration.

The State of California has two acceptable measurement scales for evaluating the average sound level (L_{eq}) over a 24-hour period to determine the noise levels over extended periods of time: the "Day-Night Noise Level" scale (L_{dn}) and the "Community Noise Equivalent Level" (CNEL). Both scales weigh evening and nighttime noise levels heavier to take into consideration increased human sensitivity to noise during those periods. The L_{dn} divides a 24-hour period into daytime (7:00 AM to 10:00 PM) and nighttime (10:00PM to 7:00AM). When using the L_{dn} , nighttime is weighed 10 dB higher than the daytime noise levels. The CNEL is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nighttime (10:00 pm - 7:00 am) noise levels. Both scales measure at approximately the same dBA level.

Table 3.12-1. Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
Jet fly-over at 300 meters	120 dBA	Rock concert
Pile driver at 20 meters	110 dBA	Night club with live music
Large truck pass by at 15 meters	100 dBA	Noisy restaurant
Gas lawn mower at 30 meters	90 dBA	Garbage disposal at 1 meter
Commercial/Urban area daytime	80 dBA	Vacuum cleaner at 3 meters
Suburban expressway at 90 meters	70 dBA	Normal speech at 1 meter
Suburban daytime	60 dBA	Active office environment
Urban area nighttime	50 dBA	Quiet office environment
Suburban nighttime	40 dBA	Library
Quiet rural areas	30 dBA	Quiet bedroom at night
Wilderness area	20 dBA	Threshold of human hearing
Most quiet remote areas	10 dBA	
Threshold of human hearing	0 dBA	

* Typical A-weighted sound levels. The A-weighted decibel scale approximates the frequency response of the human ear.

3.12.3. Regulatory Framework

The State of California, County, Marina, Seaside, Monterey, and Del Rey Oaks have regulations, plans, and policies to limit noise exposure at existing and proposed noise sensitive uses. These regulations are established in the following applicable documents: the 2016 California Building Standards Code (California Building Standards Code, 2016), the County of Monterey General Plan (County of Monterey, 2010), the City of Marina General Plan (City of Marina, 2006), the City of Seaside General Plan (City of Seaside, 2003), the City of Monterey General Plan (City of Monterey, 2010), and the City of Del Rey Oaks General Plan (DD&A, 1997a), Marina Municipal Airport Comprehensive Land Use Plan (Marina Airport CLUP) (Monterey County Airport Land Use Commission, 1996), and the Comprehensive Land Use Plan for Monterey Peninsula Airport (Monterey County Airport Land Use Commission, 1986). These documents have been incorporated by reference in accordance with CEQA Guidelines §15150 and CEQ NEPA Guidelines §1502.21.

3.12.3.1. California Building Standards Code

The 2016 California Building Standards Code (CCR, Title 24) specifies certain policies and regulations required by the State government. California requires each local government to implement a noise element as part of its general plan.

California Administrative Code, Title 4, has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

3.12.3.2. Noise Elements

County of Monterey

Monterey County, like many local jurisdictions, includes land use-noise compatibility standards in its General Plan for exterior noise exposure standards, which are based on parameters established by the California Department of Health, Office of Noise Control and provided by the Governor's Office of Planning and Research (**Table 3.12-2**). Based on these standards, noise levels of 60 dBA L_{dn} or less at various noise-sensitive receptor locations, including single- and multi-family residences, schools, hospitals, churches, and nursing homes are considered "normally acceptable" and noise levels of 60 to 70 dBA L_{dn} are considered "conditionally acceptable." The County of Monterey Noise Control Ordinance is included in Chapter 10.60 of the County's Code of Ordinances. The County's noise ordinance establishes a maximum noise-level standard of 85 dB at 50 feet for non-transportation noise sources. The County's noise ordinance was recently updated in 2014 to also include nighttime noise limitations for non-transportation noise sources (County, 2014). During the nighttime hours between 10:00 p.m. and 7:00 a.m., noise levels shall not exceed 45 dBA L_{eq} or 65 dBA L_{max} , measured at the property line of the noise source. Noise generated by some activities, including but not limited to, devices associated with religious services, emergency vehicles, commercial agricultural operations, and outdoor gatherings, are exempt.

City of Marina

The noise element of the City of Marina General Plan identifies goals, policies, and standards related to noise. The maximum allowable exterior noise exposure, as measured in L_{dn} (dBA) (or CNEL for the Marina Airport CLUP noise standards), shall not exceed the City of Marina General Plan "acceptable use" standards included in the plan, or, where applicable, the "permitted use" standards of Table 4-1 of the Marina Airport CLUP. These standards are generally consistent with **Table 3.12-2**.

City of Seaside

The noise element of the City of Seaside General Plan identifies goals, policies, and standards related to noise. To ensure that noise producers do not adversely affect sensitive receptors, the city uses land use compatibility standards when planning and making development decisions. Table N-1 included in the City's General Plan summarizes City noise standards for various types of land uses. The standards represent the maximum acceptable noise level and are used to determine noise impacts. These standards are generally consistent with **Table 3.12-2**.





City of Del Rey Oaks

The noise element of the City of Del Rey Oaks General Plan contains policies and programs to protect residents from exposure to excessive noise. Noise/land use compatibility is considered impacted if persons are exposed to noise levels on the exterior of a building that exceed 65 dB and if noise levels exceed 45 dB on the interior of a building.

City of Monterey

The noise element of the City of Monterey General Plan identifies goals, policies, and standards related to noise. The city can require noise mitigations to reduce interior noise levels to an acceptable level. Table 8 in the General Plan establishes the land use compatibility standards for new development. The City has developed land use standards for properties that are exposed to noise levels in excess of 60 CNEL. These standards are generally consistent with **Table 3.12-2**.

Table 3.12-2. Land Use and Noise Compatibility Standards

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dB)					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Light Gray		Medium Gray		Dark Gray	Black
Residential - Multi. Family	Light Gray		Medium Gray		Dark Gray	Black
Transient lodging - Motels, Hotels	Light Gray		Medium Gray		Dark Gray	Black
Schools, Libraries, Churches, Hospitals, Nursing Homes	Light Gray		Medium Gray		Dark Gray	Black
Auditoriums, Concert Halls, Amphitheaters	Light Gray		Medium Gray		Dark Gray	Black
Sports Arenas, Outdoor Spectator Sports	Light Gray		Medium Gray		Dark Gray	Black
Playgrounds, Neighborhood Parks	Light Gray		Medium Gray		Dark Gray	Black
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Light Gray		Medium Gray		Dark Gray	Black
Office Buildings, Business Commercial and Professional	Light Gray		Medium Gray		Dark Gray	Black
Industrial, Manufacturing, Utilities, Agriculture	Light Gray		Medium Gray		Dark Gray	Black
<p>Interpretation</p> <p> Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p> Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</p> <p> Normally Unacceptable: New construction or development should generally be discouraged. If new development or construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p> Clearly Unacceptable: New construction or development should generally not be undertaken.</p> <p><i>Source: California Governor's Office of Planning and Research, October 2003.</i></p>						

3.12.4. Existing Noise Sources

Primary existing sources of noise within and near the former Fort Ord are related to traffic on highways and roadways in unincorporated county areas and individual cities. Aircraft activity associated with the Marina Municipal Airport and Monterey Peninsula Regional Airport are additional significant sources of noise in the area. Although industrial facilities, foodpacking plants, and several mining operations are located in the County, none of these operations create noise conflicts in the vicinity of the former Fort Ord. The Southern Pacific spur line runs parallel to Del Monte Boulevard and provides service to the City of Marina; however, the train no longer operates within the former Fort Ord.

3.12.5. Sensitive Receptors

For the purposes of noise and public health and safety, sensitive receptors are generally defined as land uses with population concentrations that would be particularly susceptible to disturbance from noise concentrations, or other disruptions associated with the implementation of the Proposed Action. Sensitive receptor land uses generally include schools, day care centers, libraries, hospitals, residential areas, and parks.

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3.13. PUBLIC SERVICES

3.13.1. Introduction

This section describes the public services (police, fire, schools, and parks & recreation) in the vicinity of the former Fort Ord. This discussion is based, in part, on information provided in the FORA Reuse Plan EIR. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS and Volume 4 of the Reuse Plan and its supporting technical appendices and other relevant documents as referenced.

3.13.2. Regional Setting

The provision of public services within the vicinity of the former Fort Ord is provided by each of the land use jurisdictions within the boundaries of the former Fort Ord. The following discussion provides an overview of these services by jurisdiction. **Figure 3.13-1** displays police and fire stations located within the vicinity of the former Fort Ord.

3.13.2.1. Police Services

County of Monterey

The County of Monterey Sheriff's Office would be responsible for providing police protection services to the unincorporated areas of the former Fort Ord. Services would presumably be provided from the County of Monterey Sheriff's Office Coastal Station, which is located in Monterey on Aguajito Road. This station is currently staffed with 22 sworn officers, which include 16 deputies, four sergeants, one detective, and one commander. The station is responsible for the unincorporated areas of the Monterey Peninsula, including Carmel, Carmel Valley, and approximately 90 miles of the Big Sur coastline south of Monterey. The estimated response time is varied depending on the location, number of personnel on duty and time of the call; however, the general range is five to ten minutes. Services may also be provided from the Sheriff's Central Office in Salinas and/or any sub-stations constructed as part of the redevelopment of the former Fort Ord.

City of Marina

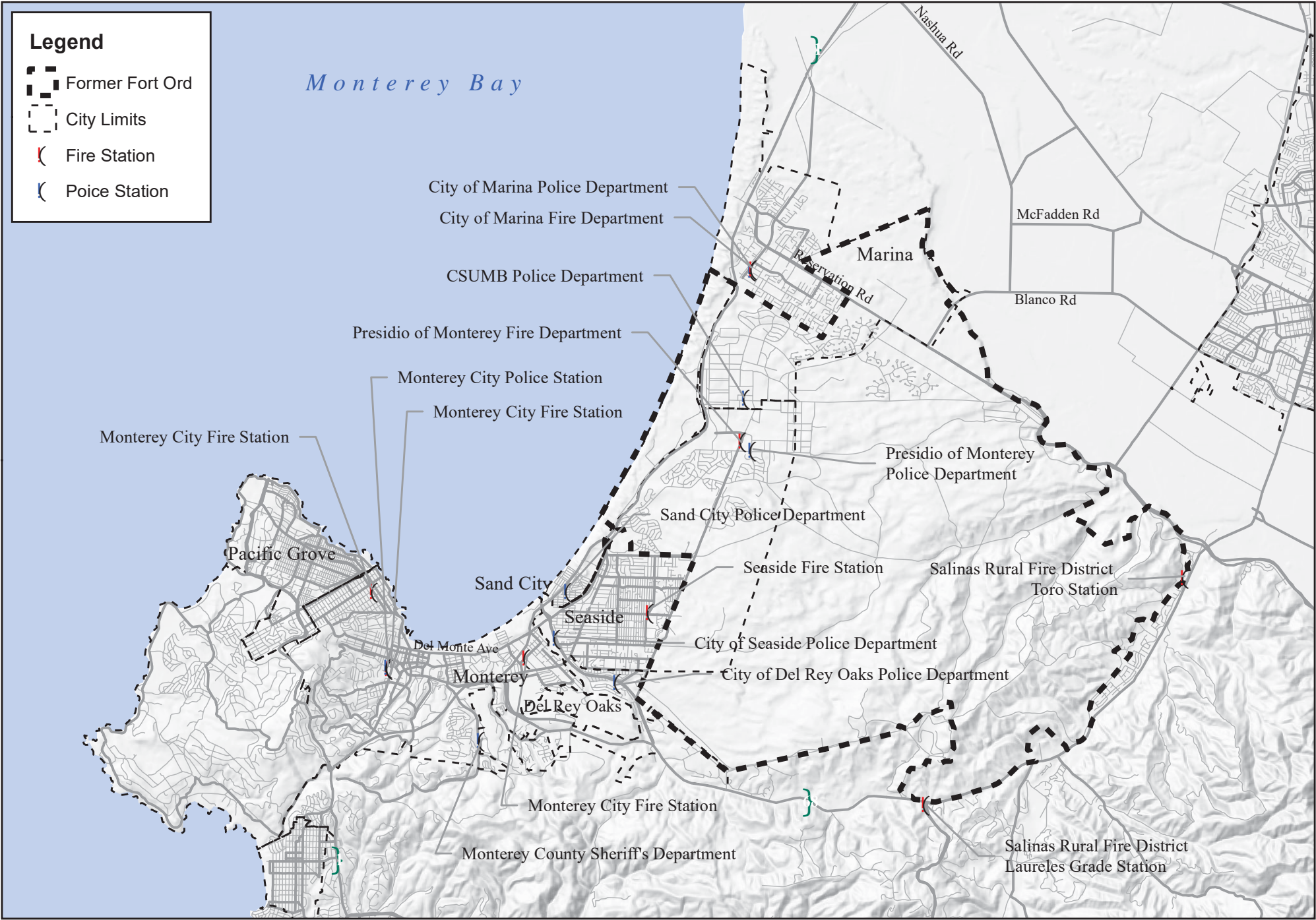
Police protection services within the City of Marina are provided by the Marina Police Department. The Department has a current staff of 36 sworn officers and eight non-sworn personnel. Services would be provided by the Department's station, which is located at 211 Hillcrest Avenue. The City of Marina Police Department has an average emergency response time of three to four minutes. Services may also be provided from any future sub-stations that are constructed within the boundaries of the former Fort Ord as part of City redevelopment efforts.

City of Seaside

Police protection services within the City of Seaside are provided by the Seaside Police Department. The Department currently has 43 sworn officers and 13 civilian employees. Services would presumably be provided from the main station, which is located at 440 Harcourt Avenue, until such time that a new police sub-station is constructed within the portion of the former Fort Ord. The estimated response time is varied depending on the location, number of personnel on duty and time of the call; however, the general range is five to ten minutes. Current average responses are estimated to range between 3:20 and 3:51 minutes. While staffing levels have historically remained the same, the response areas for police services has increased from 2.69 square miles to approximately 8 square miles due to the City's annexation of portions of the former Fort Ord. Average response times within the Department's jurisdiction between January and September 2006 ranged between 2:57 and 3:19 minutes. Current average responses, due to changes in traffic patterns, are estimated to range between 3:20 and 3:51 minutes.

City of Del Rey Oaks

The City of Del Rey Oaks Police Department, which is located at 650 Canyon Del Rey Boulevard, provides police protection services within the City of Del Rey Oaks. The City currently has 23 sworn officers and six non-sworn officers. This is equivalent to approximately 1.1 officers per 1,000 residents. Currently, there are five shifts per day with approximately two to three sworn officers on duty per shift. The majority of responses to calls are related to burglary attempts. Average response time is approximately three minutes.



Title: **Police and Fire Stations in the Vicinity of the Former Fort Ord**

File: Emergency Service.mxd

Date: 07-01-11

Scale: 1 inch = 1.86 miles

Project: 2444 - FORA HCP



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Figure
3.13-1

City of Monterey

Police protection services are provided within the City of Monterey by the Monterey Police Department. The City's police force currently includes the police chief, two deputy police chiefs, two lieutenants, nine sergeants, 24 patrol officers, three traffic officers, and six investigators. The nearest station to the former Fort Ord is located at 351 Madison Street in Monterey.

3.13.2.2. Fire Services***County of Monterey***

The Salinas Rural Fire District (SRFD) is expected to provide service to areas of the former Fort Ord in unincorporated portions of the County of Monterey. The SRFD is a full service fire department that provides emergency response to fires, medical incidents, rescues, vehicle accidents, hazardous materials incidents, and disasters (floods, earthquakes, etc.). The SRFD also provides a full range of fire prevention engineering, education, and enforcement programs. Currently, the two stations nearest the Proposed Action site are the Toro Fire Station located at 19900 Portola Drive in the Toro Park area and the Laureles Station located at Highway 68 and Laureles Grade. The Toro Station, which is nearest to the former Fort Ord, is staffed with three personnel at all times. Throughout the SRFD, the minimum staffing level is eight personnel on duty at all times, which is divided among the SRFD's three existing stations.

The SRFD is equipped with five structure-firefighting engines, four wildland firefighting engines, two 2,100-gallon water tenders, a breathing support/light tower unit, four staff vehicles and three pick-ups, for firefighting. For emergency medical services, the engines are equipped with a full complement of first responder medical supplies including CPR equipment, semi-automatic defibrillators and rescue equipment such as the Jaws of Life. The SRFD employs 33 full time firefighting employees, two full-time staff employees, and 20 volunteer firefighters.

City of Marina

Fire protection services in the City of Marina are provided by the Marina Fire Department. The closest fire station to areas of the former Fort Ord is located at 208 Palm Avenue in Marina. The station is staffed with a minimum of three personnel. The goal of the station is to respond to all emergencies within five minutes of an emergency call. The department has three shifts for 24-hour coverage and each shift has a maximum of four personnel. Staffing may be supplemented by Reserve Firefighters, if needed. Response time varies from three to four minutes within central Marina, but is greater to locations within the former Fort Ord. Two sites within the former Fort Ord boundaries are being considered for a future fire substation site, which would provide service to planned development in that area.

City of Seaside

Fire protection services in the City of Seaside are provided by the Seaside Fire Department. The closest fire station to the former Fort Ord area is located at 1635 Broadway Avenue in Seaside. The Department is staffed with two fire companies consisting of three persons each and one duty Chief. Minimum staffing for the Department is seven personnel on duty 24 hours a day, seven days a week. The Seaside Fire Department provides both emergency response and prevention services to the community. The Seaside Fire Department responds to 2,000 to 2,400 emergency calls annually, of which approximately 65 percent are medical in nature. The Seaside Fire Department's response times vary based on the proximity of the incident in relation to the location of the fire station, although 90% of the service area is within the four minute travel time recommended by the National Fire Protection Association. Due to the closure of Fort Ord, the Fire Department response area is approximately three times larger and average responses to emergencies within former Fort Ord area are outside of the recommended response time. Because of redevelopment activities within Fort Ord, the Fire Department has identified a need for a substation, with appropriate staffing and equipment, in northern Seaside to accommodate projected growth and development within the area.

City of Del Rey Oaks

Fire protection services within the City of Del Rey Oaks are provided by the Seaside Fire Department, described above for the City of Seaside. The closest fire station to the City of Del Rey Oaks is located at the intersection of Broadway Avenue and Yosemite Street in Seaside.

City of Monterey

Fire protection services within the City of Monterey are provided by the Monterey Fire Department. The City of Monterey Fire Department maintains four fire stations strategically located to achieve the shortest response time to emergency calls. The Department serves Monterey neighborhoods as well as the cities of Pacific Grove, Carmel-by-the-Sea, Sand City, Presidio of Monterey, Naval Post Graduate School, and La Mesa Village. The closest station to the City of Monterey property located in the former Fort Ord is Station No. 3, which is located at 401 Dela Vina Avenue.

3.13.2.3. Schools

The former Fort Ord is in the Monterey Peninsula Unified School District (MPUSD), which encompasses the cities of Del Rey Oaks, Marina, Monterey, Sand City, and Seaside and serves more than 10,000 students. MPUSD is comprised of three early education centers, 12 elementary schools, four middle schools, four high schools, and three charter schools. MPUSD also offers alternative education and adult education programs. In addition to MPUSD schools, CSUMB, MPC, Monterey College of Law, Dual Language Academy of the Monterey Peninsula, and Chartwell School are located within the former Fort Ord.

3.13.2.4. Parks & Recreation

There are a variety of recreational resources, from Federal reserves, to State beaches, to small neighborhood parks, throughout the County of Monterey. Almost 14 percent of the County of Monterey's land area, 293,781 acres, is devoted to park and recreation facilities operated by various governmental entities. The county parks system, managed by the Parks Department, makes up about 10 percent of the County's total park acreage. There are currently eight county regional parks in County of Monterey, offering a rich variety of recreational opportunities for residents and tourists.

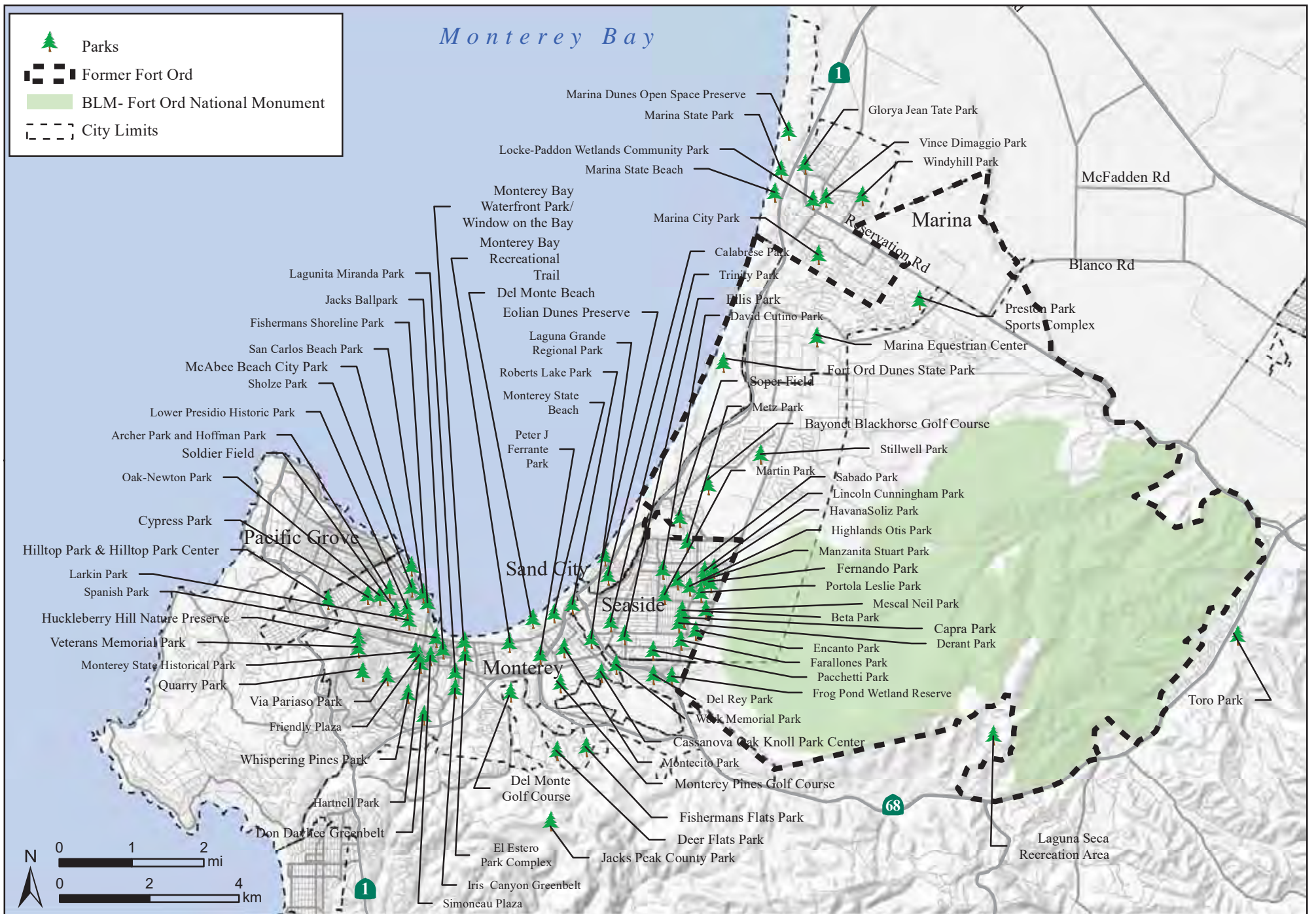
Recreation includes formally designated parks, trails, and open spaces, that provide activities like hiking and bird watching, as well as bodies of water where boating, fishing, and swimming are enjoyed. Recreation in County of Monterey is based on access to natural resources that are unique to the area, like the Monterey Bay shoreline, which contains one of the most significant and rare dune landforms on the west coast. Beach access, dune access, and hiking trails are available along the coast at recreational areas that are described in detail below. The California Department of Parks and Recreation (California State Parks) has acquired approximately 990 acres of parkland on the former Fort Ord, including four miles of ocean beach located west of Highway 1, generally between Marina and Sand City, as part of the Fort Ord Dunes State Park.

Other significant recreational areas in the Proposed Action area include the Monterey Bay Coastal/Recreational Trail, Marina State Beach, Monterey State Beach, and Monterey Bay Waterfront Park/Window on the Bay. **Figure 3.13-2** displays parks and recreational facilities located within the vicinity of the former Fort Ord.

Bureau of Land Management

Over 7,200 acres of the former Fort Ord Amy base were acquired by the BLM in October 1996. Habitat preservation and conservation were the primary missions for the BLM with the Fort Ord public lands under the BLM's approved Resource Management Plan and the HMP, but there are also more than 86 miles of trails open to the public for hiking, biking, or horseback riding. In order to assist former Fort Ord lands to transition from military to public use, the BLM manages its portion of the former base to protect rare habitat while also providing recreational opportunities on these public lands.

On April 20, 2012, the President of the United States established the FONM, which covers the entire 14,645 acres of the BLM public lands (existing and future). In establishing the FONM, "all Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, leasing, or other disposition under the public lands laws." (Fed. Reg. Vol. 77, No. 80, Wednesday April 25, 2012, pp. 24579-24583). As a national monument, the FONM is part of BLM's National Landscape Conservation System and shall be managed in a manner that protects the values for which the site was designated as a national monument.



Title: **Parks and Recreational Facilities in the Vicinity of the Former Fort Ord**

File: **Parks.mxd**

Date: **09-19-17**

Scale: **1 inch = 1.74 miles**

Project: **2444 - FORA HCP**

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Figure

3.13-2

As required under the OPLMA, the BLM will manage components of the NLCS to “conserve, protect, and restore nationally significant landscapes.”

California State Parks

Fort Ord Dunes State Park

This recently opened State Park on the former Fort Ord has a 1,500-foot trail and four miles of ocean beach with beautiful views of Monterey Bay. From the parking area, visitors may also take a stroll on the new boardwalk to a bluff top viewing platform. Eight educational panels have been installed that inform the public about the natural and cultural history of the park. Existing park roads are open to bicyclists, hikers, and dogs on leash.

Marina State Beach

Marina State Beach has been a unit of the State Parks system since 1977. Marina State Beach encompasses 170 acres and serves an estimated 500,000 visitors each year. The beach area winds through the Marina Dunes Natural Preserves. The function of the Marina State Beach is to preserve and protect the coastal dunes and provide opportunities for ocean or beach-oriented recreation to the public. The existing facilities at Marina State Beach include full utility hookups, restrooms, and a State Parks office and employee residence. Additionally, but not run by the State Parks office, Western Hang Gliders provides hang gliding, paragliding, and ultralighting equipment and services adjacent to the beach parking lot. The beach is known for hang-gliding; radio-controlled gliders and kites are also popular. The beach is wheelchair accessible, with a boardwalk that winds through the Marina Dunes Natural Preserves. Water recreation is extremely hazardous due to strong rip currents. The park is located at the western terminus of Reservation Road in Marina, less than half of a mile from the boundary of former Fort Ord.

Monterey State Beach

State beaches are areas with frontage on the ocean, or bays designed to provide swimming, boating, fishing, and other beach-oriented recreational activities. This beach is a favorite place for surfers and tidepool watchers. Fishing is popular, too. The cities of Monterey and Seaside share Monterey State Beach, which includes three separate beaches approximately a mile apart. The underwater area of the State beach attracts scuba divers. Visitors also enjoy kayaking, kite-flying and volleyball. The flat beach is an excellent place for beachcombing.

Regional Parks

Below is a listing of regional parks in the general vicinity of the former Fort Ord.

- Eolian Dunes Preserve
- Locke-Paddon Wetlands Community Park
- Marina Dunes Open Space Reserve
- Jacks Peak County Park
- Monterey Peninsula Regional Park
- Toro Park
- Laguna Seca Recreation Area
- Laguna Grande Regional Park
- Frog Pond Wetland Reserve

Local Parks

Below is a listing of local parks and other recreational elements in the general vicinity of the former Fort Ord in the cities of Marina, Seaside, Del Rey Oaks, and Monterey.

City of Marina

- | | |
|-------------------------|-------------------------------|
| ▪ Gloria Jean Tate Park | ▪ Marina Equestrian Center |
| ▪ Vince Di Maggio Park | ▪ Preston Park Sports Complex |
| ▪ Windy Hill Park | ▪ Marina City Park |

City of Seaside

- Roberts Lake Park
- Soper Field
- Metz Park
- David Cutino Park
- Pachetti Park
- Farallones Park
- Beta Park
- Havana Soliz Park
- Lincoln Cunningham Park
- Fernando Park
- Highlands Otis Park
- Sabado Park
- Martin Park
- Durant Park
- Ellis Park
- Trinity Park
- Portola Leslie Park
- Manzanita Stuart Park
- Capra Park
- Mescal Neil Park
- Encanto Park
- Stillwell Park

City of Del Rey Oaks

- Work Memorial Park
- Del Rey Park

City of Monterey

- Hilltop Park & Hilltop Park Center
- Oak Newton Park
- Archer Park Center & Hoffman Park
- San Carlos Beach Park
- Fisherman's Shoreline Park
- Larkin Park
- Huckleberry Hill Nature Preserve
- Veteran's Memorial Park
- Via Paraiso Park
- Whispering Pines Park
- Jacks Ballpark
- Don Dahvee Greenbelt
- El Estero Park Complex
- Iris Canyon Greenbelt
- Monterey Bay Waterfront Park/Window on the Bay
- Peter J. Ferrante Park
- Montecito Park
- Casanova Oak Knoll Park Center
- Fisherman's Flats Park
- Deer Flats Park
- Cypress Park
- Friendly Plaza
- Lagunita Mirada
- Del Monte Beach
- Quarry Park
- Lower Presidio Historic Park
- McAbee Beach City Park
- Sholze Park
- Spanish Park
- Soldier Field

Other Recreational Elements

Below is a listing of other recreational elements in the general vicinity of the former Fort Ord.

- Bayonet & Black Horse Golf Course
- Monterey Pines Golf Course
- Del Monte Golf Course
- Monterey Bay Recreational Trail

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3.14. SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

3.14.1. Introduction

The following discussion provides an overview of the regulatory framework affecting socioeconomic and environmental justice issues. In addition, relevant information concerning the existing demographic characteristics of the region, including information pertaining to population and housing, minority and low-income populations, and employment information is also presented below.

3.14.2. Regulatory Framework

3.14.2.1. Federal

National Environmental Policy Act

Under NEPA (42 United States Code [USC] 4321 et seq.), the social and economic effects of a project, if they are related to the project's natural or physical effects, must be considered. Implementation of NEPA (40 CFR Parts 1500-1508) defines "effects" to include economic and social factors whether direct, indirect or cumulative in nature (40 CFR Section 1508.8). Consequently, an EA or EIS must analyze a project's economic and social impacts related to natural or physical effects to the affected area's physical environment. However, NEPA provides no specific thresholds of significance for socioeconomic impact assessment.

Executive Order 12898

Federal agencies are directed by EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low Income Populations*, as amended, to identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The executive order requires Federal agencies to consider impacts on minority and/or low-income populations during their environmental and socioeconomic analyses of projects or programs that are proposed, funded or licensed under their authority. Specifically, EO 12898 requires that:

"To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin."

The executive order also requires that "each Federal Agency shall analyze the environmental effects, including health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA."

Regulation of the Federal Government's compliance with EO 12898 and NEPA is provided by the CEQ with assistance from the U.S. EPA and other agencies.

Council for Environmental Quality Regulations

The CEQ coordinates Federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives. The CEQ has developed guidance to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. The CEQ's *Environmental Justice Guidance under the National Environmental Policy Act* advises agencies to consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action, and if so whether there may be disproportionately high and adverse environmental effects to these populations (CEQ, 1997a).

The CEQ provides guidance for incorporating environmental justice into NEPA compliance and definitions of key terms and concepts relevant to EO 12898 as established by the Interagency Work Group on Environmental Justice.¹ The CEQ guidance identifies minority populations where the percentage of minority individuals is greater than 50 percent, or “meaningfully greater” than that of the general population.² For the purposes of environmental justice analysis, the minority population for a community consists of all non-white individuals as well as all Hispanic or Latino individuals (i.e. of both white and non-white racial origin).

Similarly, a low-income population exists if the community consists of 50 percent or more living below the poverty threshold (as defined by the U.S. Census) or is meaningfully greater than the proportion of low-income individuals within the general population.

3.14.2.2. State

California Government Code

While there is no requirement to address environmental justice issues under CEQA, following the lead of EO 12898, the State of California passed a series of environmental justice regulations. California Government Code Section 65040.12 defines environmental justice as the “fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”

Legislative and executive actions relating to environmental justice in California have been largely procedural including, but not limited to, formation of environmental justice advisory committees and assigning coordinating roles and responsibilities to the Governor’s OPR and the Cal-EPA.

3.14.3. Demographics

3.14.3.1. Population

Table 3.14-1 presents existing and projected population for the jurisdictions located within the boundaries of the former Fort Ord through 2035. The information presented in **Table 3.14-1** is based on the current population and historic trends reported by the AMBAG. The highest population growth rates are projected within the cities of Marina, Seaside and Del Rey Oaks. Between 2010 and 2035, Marina’s population is expected to increase by 22.86 percent, Seaside’s population is expected to increase by 27.95 percent, and Del Rey Oaks’ population is expected to increase by 113.55 percent. This increase in population growth is largely attributable to the redevelopment of the former Fort Ord. Information obtained from the 2010 Census, however, has indicated that Marina has experienced a significant population decrease since 2000. Del Rey Oaks and Monterey have also experienced a decrease in population since 2000. Nevertheless, by 2035, the County of Monterey’s population is expected to grow by 19.28 percent.

Table 3.14-1 Current and Projected Population Summary by Jurisdiction

Place of Residence	2000 Census Population	2010 Census Population	2020 Projected Population	2025 Projected Population	2030 Projected Population	2035 Projected Population
City of Del Rey Oaks	1,650	1,624	1,889	2,345	2,806	3,468
City of Marina	25,101	19,718	21,315	22,651	23,388	24,225
City of Monterey	29,674	27,810	28,004	28,839	29,743	30,647
City of Seaside	31,786	33,025	36,120	40,260	41,308	42,256
Unincorporated County of Monterey	100,252	100,213	102,847	103,147	104,028	104,304
County of Monterey Total	401,762	415, 057	447,516	463,884	479,487	495,086

Sources: 2000 Population and Household data from the U.S. Census Bureau; “DP-1. Profile of General Demographic Characteristics: 2000;” Summary File 1; and population projections from AMBAG “2014 Regional Growth Forecast.”

¹ The Executive Order established the Interagency Working Group on Environmental Justice (IWG) to guide and facilitate cooperation among Federal agencies in environmental justice policy implementation. The IWG is chaired by the U.S. EPA Administrator and includes all the major Federal departments/agencies and White House offices.

² Although “meaningfully greater” is not defined by the CEQ guidelines, typically communities with a proportion of minority individuals twice that of the general population will be recognized as minority communities of concern.

3.14.3.2. Minority & Low Income Populations

For the purposes of environmental justice analysis, Federal agencies are required to identify whether a proposed action will possibly have disproportionately high and adverse effects on minority or low-income populations within the Proposed Action vicinity.³ The geographic scale used to identify any environmental justice “communities of concern” should more or less correspond to the scale of the project’s potential adverse impacts and affected environment. The affected environment for the environmental justice analysis consists of the cities and the unincorporated area within the boundaries of the former Fort Ord. **Figure 3.14-1** identifies census tracts located immediately adjacent to the former Fort Ord.

Table 3.14-2 presents the racial composition for the County of Monterey and the jurisdiction with boundaries within the former Fort Ord. The proportion of minority individuals has also been compared to the composition of County of Monterey’s total population. **Table 3.14-2** provides population percentages for the minority populations of the cities of Monterey, Marina, Seaside, and the County of Monterey. As shown in **Table 3.14-2**, the County has a 68.49 percent minority population.⁴ Of the cities within the Proposed Action area, two have above 50 percent minority populations, Marina (63.59 percent) and Seaside (67.22 percent).

Table 3.14-2. Proposed Action Area Minority Profile

Jurisdiction	Population	Minority Population	Minority Percentage
Del Rey Oaks	1,673	473	28.27%
Monterey	28,283	9,333	33.0%
Marina	20,537	13,059	63.59%
County of Monterey	428,441	293,420	68.49%
Seaside	33,999	22,856	67.22%

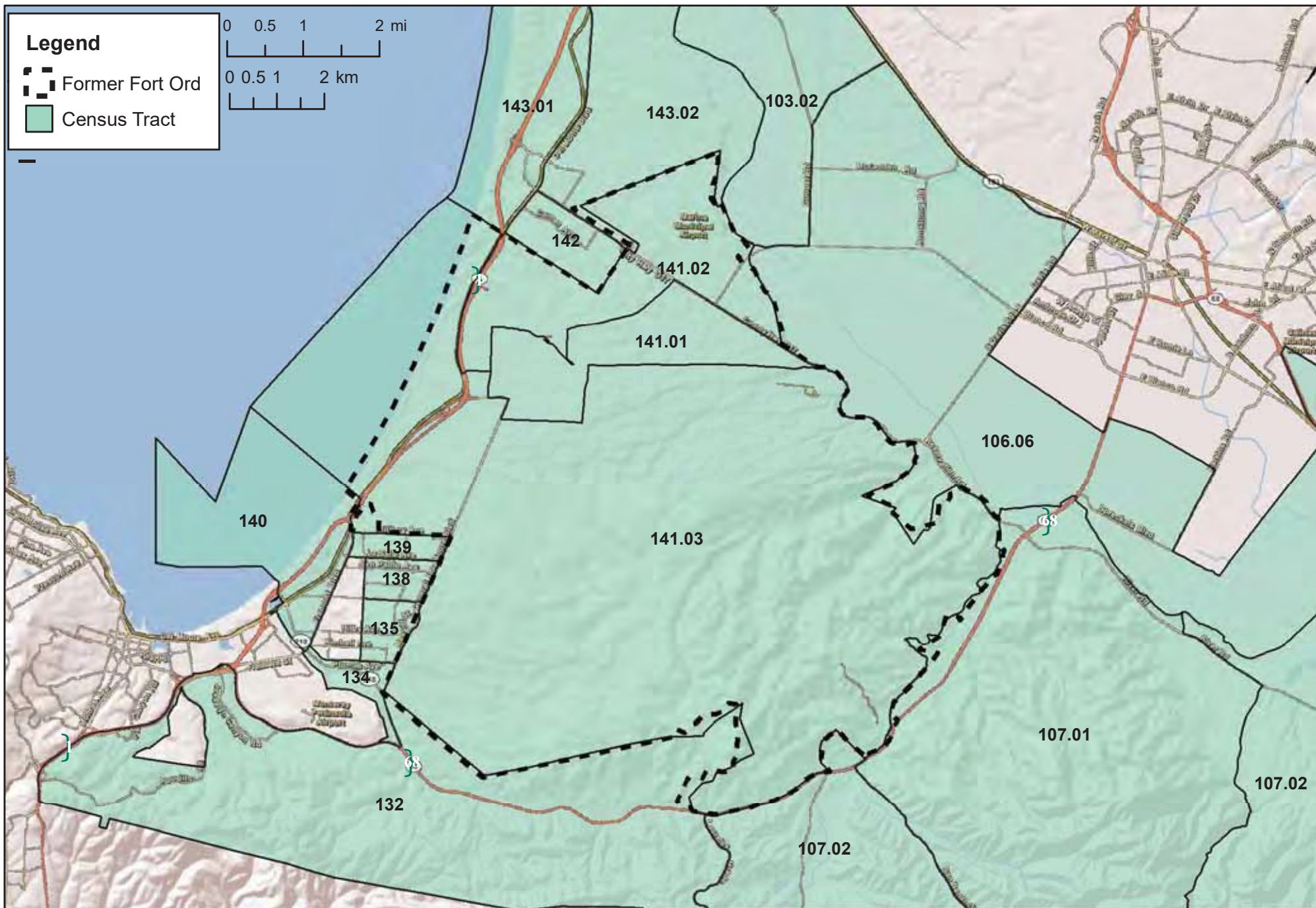
Source: 2011-2015 American Community Survey 5-Year Estimates.

Table 3.14-3 shows the minority populations for the Census Tracts that are within or adjacent to the boundaries of the former Fort Ord. In addition, **Table 3.14-3** also contains information related to low income populations within those census tracts. The CEQ’s environmental justice guidance states that “low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census’ Current Population Reports, Series P-60 on Income and Poverty.” Generally, a low-income population exists if a community has 50 percent or more of its residents living below the poverty threshold (as defined by the U.S. Census) or its population of poverty level residents is meaningfully greater than the proportion of low-income individuals within the general population. For the purposes of this analysis, a census tract that contains 50 percent or more minority or low-income population constitutes an environmental justice community.

Based on the Census Tract analysis of the minority population contained in **Table 3.14-3**, there is a high proportion of minority communities within the Proposed Action vicinity. As shown in **Table 3.14-3**, seven Census Tracts have over 50 percent minority populations. These areas are located primarily within the unincorporated portion of the County located north of the former Fort Ord, as well as the cities of Marina and Seaside. The area with the highest proportion minority population is located within unincorporated areas of the County (Census Tract 160.6). Census Tract 142, which is located in Marina, has the largest number of minority residents. As further identified in **Table 3.14-3** no census tracts contain low-income populations in excess of 50 percent.

³ According to CEQ guidelines for environmental justice analysis, “minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent; or (b) the minority population percentage of the affected area is meaningfully greater than the majority population percentage in the general population or other appropriate unit of geographic analysis...(A) minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds” (CEQ, 1997a).

⁴ It is important to note, however, that the census data obtained for the County of Monterey represents the entire County, including the incorporated cities and unincorporated areas. The racial composition of the unincorporated areas of the County of Monterey within the Proposed Action vicinity is anticipated to vary significantly.



Title: **Census Map**

File: Census Map.mxd

Date: 04-11-12

Scale: 1 inch = 1.66 miles

Project: 2444 - FORA HCP



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Figure
3.14-1

Table 3.14-3. Proposed Action Area Minority Profile by Census Tract

Tract Names	Population	Minority #	Minority %	Poverty %
103.02	1,258	506	40.22	10.2
106.06	6,299	5,226	82.97	21.6
107.01	6,769	1,481	21.88	1.9
107.02	3,911	557	14.24	2.9
132	4,225	628	14.86	2.2
134	1,624	307	18.90	5.0
135	4,920	2,900	58.94	11.1
138	5,548	4,246	76.53	11.7
139	2,765	1,298	46.94	11.0
140	2,637	1,669	63.29	19.3
141.01	8,322	4,977	59.81	26.8
141.02	2,259	1,046	46.30	35.4
141.03	5,890	1,269	21.54	4.7
142	9,570	5,309	55.48	12.7
143.01	3,602	1,819	50.50	6.01
143.02	4,024	1,412	35.09	11.5
TOTAL	73,623	34,650	47.06	-

SOURCE: U.S. Census 2010 Lookup, <http://factfinder2.census.gov/>, accessed July 1, 2011

3.14.4. Housing

Table 3.14-4 shows the past housing estimates for the cities within the Proposed Action area. Between 1990 and 2010; the number of housing units within the County of Monterey increased by 12.8 percent; although both Marina and Seaside experienced a reported decline in the number of housing units.

Table 3.14-4. Historical Housing in County of Monterey and Selected Cities (1990 – 2010)

Jurisdiction	Housing Units			Percent Change (1990 - 2010)	Percent Vacant (2010)
	1990	2000	2010		
County of Monterey	121,224	131,708	139,084	12.8%	9.4%
Del Rey Oaks	733	727	741	1.0%	5.4%
Marina	8,261	8,537	7,200	(12.8%)	4.9%
Monterey	13,497	13,382	13,584	0.6%	10.3%
Seaside	11,214	11,005	10,872	(3.0%)	7.2%

SOURCE: California Department of Finance, 2010; U.S. Census Bureau, 2010.

Generally, a five percent vacancy rate is considered adequate and healthy to allow for consumer choice and relocation within the housing market. As shown in **Table 3.14-4**, data obtained from the 2010 Census indicates the current county-wide housing vacancy rate is approximately nine percent. Housing vacancy rates are very high in the cities of Seaside and Monterey. The indication of high vacancy rate within the region is likely a result of foreclosures and a weakened real estate market resulting from the economic downturn beginning in the late 2000s.

Housing projections were developed by AMBAG as part AMBAG’s 2014 Regional Growth Forecast. AMBAG used statistical modeling to develop projections for anticipated housing units through the year 2035. Projected housing stock for jurisdictions within the former Fort Ord is identified in **Table 3.14-5**. According to the Fort Ord Reuse Plan, full build-out of the former Fort Ord would result in the construction of 22,322 new dwelling units; these units were considered as part of AMBAG’s projections. Overall, AMBAG’s projects that 18,944 new housing units will be constructed between 2010 and 2035, within the County.

Table 3.14-5. County of Monterey AMBAG Housing Projections 2010-2035

Jurisdiction	Year				
	2010	2020	2025	2030	2035
Del Rey Oaks	741	898	1,035	1,246	1,521
Marina	7,200	8,248	9,264	9,608	9,797
Monterey	13,584	13,665	13,695	13,750	14,001
Seaside	11,335	12,556	12,907	13,311	13,664
Unincorporated County of Monterey	38,971	39,337	39,633	39,730	39,735
Total Housing Units in the County of Monterey:¹	139,048	147,106	150,260	154,585	157,992

Note:
1) This includes all housing units within the County of Monterey, including the incorporated cities (i.e. Salinas, Soledad, King City, etc.) and unincorporated areas.
SOURCE: AMBAG 2014 Regional Growth Forecast

3.14.5. Employment

This section discusses trends in employment and the economy; overall trends in job growth as projected in AMBAG's Monterey Bay 2014 Regional Forecast are presented below. Key employment data include the number of employable residents (i.e., its available labor force) and the number of job opportunities (i.e. employment) within the community. **Table 3.14-6** shows civilian labor force and unemployment data for the County and the cities comprising of the former Fort Ord. Currently, the unemployment rate within the County in June 2015 was approximately 6.3 percent (CEDD, 2015a).

Table 3.14-6. Labor Force and Unemployment in the County of Monterey & Proposed Action Area

Jurisdiction	Labor Force	Unemployed	Unemployment Rate (%) ⁵
County of Monterey	219,300	19,900	9.1%
Del Rey Oaks	1,100	100	6.7%
Marina	11,700	800	6.8%
Monterey	15,700	1,000	6.5%
Seaside	18,300	1,700	9.3%
State of California	18,811,400	1,414,300	7.5%

Source: California Employment Development Department (CEDD) (2015b; 2015c), Annual Average 2014.

Table 3.14-7 presents a breakdown of employment in different industry sectors in the Cities of Marina, Monterey, and Seaside, in addition to the County. The categories with the largest number of jobs in the affected jurisdictions include education, arts, retail, and professional. Projections for the non-farm industry in the County between 2002 and 2012 suggest that the largest changes would be in the services industry, which could increase by approximately 10,400 jobs, mainly in food service industry.

Table 3.14-7. Labor Force Characteristics

Employment Sector	Year 2010			
	Monterey	Marina	Seaside	County of Monterey
Agriculture	810 (3.0%)	18 (0.4%)	-	45,100(24.8%)
Construction	818 (3.0%)	276 (5.6%)	204 (2.6%)	4,300 (2.4%)
Industrial	1,205 (4.5%)	212 (4.3%)	196 (2.5%)	5,600 (3.1%)
Retail	2,653 (9.9%)	926 (18.7%)	949 (12.2%)	20,100 (11.0%)
Service	12,085 (44.9%)	2,249 (45.4%)	2,743 (35.2%)	60,900 (33.5%)
Public	9,362 (34.8%)	1,270 (25.6%)	3,698 (47.5%)	46,000 (25.3%)
TOTAL	26,933	4,951	7,790	182,000

Source: AMBAG, 2014 Regional Growth Forecast

⁵ Data may not add due to rounding. All unemployment rates shown are calculated on unrounded data.

In addition to the information contained in **Table 3.14-7** above, the AMBAG Monterey Bay 2014 Regional Forecast has also developed employment projections for the region. AMBAG estimates that the County, by the year 2030, will have added 34,486 new jobs. AMBAG's employment projections recognize slower job growth between 2005 and 2015 consistent with the state of the economy at that time. The current unemployment rate in the County is 9.1 percent (CEDD, 2015c), as shown above. The AMBAG 2014 Regional Forecast is consistent with the current economic climate, but projects that overall employment levels will grow by approximately 22.05 percent by 2035.

According to AMBAG, the most recent employment data estimate that in 2010, approximately 196,430 jobs are located in the County. The largest proportion of these jobs is in the City of Monterey. Seaside and Pacific Grove are the other major employment centers on the Monterey Peninsula. Between 2010 and 2035, AMBAG projects a county-wide increase in employment of 22.05 percent. As shown in **Table 3.14-8**, substantial job growth is anticipated to occur within the cities of Seaside and Marina. This growth is primarily associated with the redevelopment of Fort Ord. Although County employment may have decreased recently because of the economic downturn, the long-term employment forecasts are expected to remain reasonable since economic fluctuations are typical of any economy and conservative economic forecasting approaches generally accounted for such cyclical conditions.

Table 3.14-8. Employment Forecast

Jurisdiction	Employment					Percentage Growth (2010-2035)
	2010	2020	2025	2030	2035	
Del Rey Oaks	414	640	602	592	573	38.37%
Marina	4,951	5,727	6,191	7,242	8,305	67.74%
Monterey	26,934	31,249	32,512	33,597	34,828	29.31%
Seaside	7,790	8,828	9,092	9,344	9,628	23.60%
Unincorporated County of Monterey	58,071	62,998	63,795	63,955	63,443	13.36%
County of Monterey	182,000	205,977	211,218	216,486	222,137	22.05%
Source: AMBAG, 2014 Regional Growth Forecast						

AMBAG's employment projections recognize slower job growth between 2005 and 2015 consistent with the current state of the economy. The AMBAG Forecast is consistent with the current economic climate, but projects that overall employment levels in the County will grow by approximately 22.05 percent by 2035. Overall, jobs across all sectors of the economy are anticipated to increase through 2035; please refer to **Table 3.14-9** for more information. A detailed breakdown of employment growth by sector for each of the individual land use jurisdiction is not provided.

Table 3.14-9. County of Monterey AMBAG Employment Projections by Sector

Sector	Year				
	2010	2020	2025	2030	2035
Agricultural	45,100	47,432	47,927	48,256	48,666
Construction	4,300	5,902	6,010	6,118	6,226
Industrial	5,600	5,651	5,559	5,513	5,425
Retail	20,100	23,306	23,418	23,644	23,869
Service	60,900	71,430	73,414	75,586	77,805
Public	46,000	52,256	54,890	57,369	60,146
Total:	182,000	205,977	211,218	216,486	222,137
Source: AMBAG, 2014 Regional Growth Forecast					

3.14.6. Growth Inducement

3.14.6.1. Introduction

NEPA (40 CFR. § 1508.8(b)) requires that an EIS address the indirect effects of a proposed project. Indirect effects may include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems." In addition, CEQA Guidelines §§15126.2(d) requires that an EIR "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Under NEPA, growth-inducing effects are a subset of indirect effects, which are defined as effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable" (40 CFR 1508.8(b)).⁶

A project/action may result in a growth-inducing impact if it individually or cumulatively removes an obstacle to population growth; results in increased population that requires the expansion of existing public facilities, the expansion of which has the potential to result in significant environmental effects; or generally encourages or facilitates activities that could adversely affect the environment. Direct growth inducement could result, for example, if a project involves the construction of new housing. Indirect growth inducement could result if a project established substantial new permanent employment opportunities (e.g. new commercial, industrial, or governmental enterprises) or if it would remove obstacles to population growth (e.g. expansion of infrastructure capacity).

3.14.6.2. Proposed Action Area

The AMBAG prepares a regional forecast of population, housing, and employment projections every five years for Santa Cruz, San Benito, and Monterey counties. In 2014, AMBAG updated the Regional Growth Forecast. Based on the 2014 population, housing, and employment forecasts, the County of Monterey is expected experience continued growth. Relevant information concerning population, housing, and employment forecasts for each of the jurisdictions within the former Fort Ord is present above; please refer above for more information. Also, please refer to the AMBAG 2014 Regional Growth Forecast for a detailed discussion of projections for each jurisdiction. While population, housing, and employment growth will be contingent upon the rate of economic recovery, significant additional growth is anticipated. This growth is anticipated to occur primarily within the land use jurisdictions within the former Fort Ord where significant developable land exists.

3.14.6.3. Patterns and Trends

As described above, significant additional growth and economic development, particularly within the former Fort Ord, is projected to occur in the next 20 years. Significant additional residential, commercial, industrial, and institutional development is planned to occur within the former Fort Ord as envisioned by the Fort Ord Reuse Plan. These projects are in varying stages of development ranging from conceptual planning to construction. The rate and scale of future development, however, is likely to vary significantly due to environmental (i.e. water supply, traffic, infrastructure, etc.) and planning constraints. The timing and rate of development will also be influenced by economic factors, such as the recovery of the housing market; a significant portion of the developable lands are designated for residential use. In areas where environmental considerations (i.e. water supply, traffic, etc.) are not significant obstacles to development, economic factors will presumably influence the timing and rate of new development.

⁶ Significance varies, depending on the setting of the Proposed Action (40CFR 1508.27[a]), but 40 CFR 1508.8 states that indirect effects may include those that are growth inducing and others related to induced changes in the pattern of land use, population density, or growth rate. Generally, effects that result in greater employment, income or otherwise improve the quality of life for the local population are considered beneficial socioeconomic impacts.

3.15. TRANSPORTATION AND CIRCULATION

3.15.1. Introduction

This section describes existing transportation and circulation characteristics in and around the former Fort Ord. The former Fort Ord has been the subject of extensive studies which have included evaluations and descriptions of general traffic and circulation characteristics in the Plan Area. This discussion is based, in part, on information provided in Volume 4 of the Reuse Plan. For more information, please refer to Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced. Additionally, a Traffic Analysis was prepared for the Proposed Action by Hatch Mott McDonald (please refer to **Appendix C.1**). This section incorporates the results of the analysis and has been updated with recent data collected in the region for the FORA Fee Reallocation Study: Deficiency Analysis and Fee Reallocation Fiscal Year 2016/2017 (Kimley Horn, 2017) (please refer to **Appendix C.2**).

3.15.2. Terminology

The performance of the roadway network is described using the level of service (LOS) concept in this document. The LOS refers to a hierarchy of performance measures describing different levels of operational conditions within a traffic stream and the perception of these conditions by motorists and/or passengers. The LOS is represented by a continuum of six grades of progressively more congested traffic flow, LOS A through LOS F, where LOS A represents free and unobstructed traffic flow and LOS F represents "stop and go" traffic.

Facility type refers to a categorical classification of roadways based on speed, capacity, and signal spacing (e.g. freeways, arterials, and local roads). Typical roadway categories include:

- *Freeways*: These are high-speed facilities designed to carry large volumes of traffic. Freeways are limited-access roadways, so traffic can only enter and exit at specific locations.
- *Uninterrupted Flow Highways/Arterials*: These are facilities with one or more travel lanes in each direction with no fixed causes of delay or interruptions external to the traffic stream.
- *Interrupted Flow Arterials*: This classification refers to a range of roadways that include urban and rural streets. Arterials have one or more lanes, with traffic signals, STOP or Yield signs, or other fixed causes of periodic delay or interruption to the traffic stream. Arterials are generally designed to serve through traffic. They are categorized in four classes according to the number of signalized intersections per mile. Class IA arterials are generally rural roads, while Class III arterials are found in densely-developed urbanized areas.
- *Local Roads*: These facilities are designed for lower volumes of traffic. Intersections are controlled by stop signs or signals.

3.15.3. Regulatory Framework

Individual cities in the County have jurisdiction over their respective city streets and city-operated traffic signals. Caltrans has authority over the State highway system, including mainline facilities, interchanges, and arterial State routes. Caltrans approves the planning and design of improvements for all State-controlled facilities. Monterey-Salinas Transit (MST), the transit service provider in the County, has jurisdiction over its services. The TAMC has established a Regional Development Impact Fee (RDIF) program in the County. The program collects fees on the proportional impact of new development on regional transportation infrastructure, helping to streamline the process for analyzing and mitigating transportation impacts. Development within the former Fort Ord is not subject to the RDIF. The Reuse Plan states that FORA shall fund its "Fair Share" of "on-site," "off-site," and "regional" roadway and transit capital improvements based on a nexus analysis from TAMC.

3.15.4. Local Transportation Network

The Plan Area consists of the former Fort Ord (please refer to **Figure 2-5** in Chapter 2, *Description of Proposed Action and Alternatives* for the transportation network). The roadway network within former Fort Ord consists of a mix of arterial and local roads. Roadways that provide direct access to and within the Plan Area include the following:

- | | |
|------------------------|---------------------------------|
| 1. Reservation Road; | 2. General Jim Moore Boulevard; |
| 3. Lightfighter Drive; | 4. Imjin Parkway; |
| 5. Gigling Road; | 6. Inter-Garrison Road; |
| 7. Parker Flats Road; | 8. Second Avenue |
| 9. Imjin Road | 10. Eighth Street; |
| 11. Broadway Avenue; | 12. South Boundary Road; and |
| 13. Eucalyptus Road. | |

Other regional roadways that would be traversed to access the Plan Area include:

1. Highway 1;
2. Highway 68;
3. Blanco Road; and
4. Davis Road.

Many of the roadways cited above currently operate at levels of service below the standards of their respective jurisdictions, or are projected to do so within the next 20 years, as displayed in **Tables 3.15-1 and 3.15-2** below.

3.15.5. Bicycle/Pedestrian Facilities

The pedestrian and bicycle networks within the Plan Area are discontinuous. This is due in part to the more rural surroundings of the Plan Area, which currently have low or non-existent demand for pedestrian or bicycle facilities. Roadways in more urbanized areas, such as much of General Jim Moore Boulevard, contain both sidewalks and bicycle lanes. Others, such as Inter-Garrison Road through the eastern CSUMB campus, provide just vehicle shoulders. The roadway cross sections in more rural areas, such as Eucalyptus Road, remain much as they were when Fort Ord was an Army base; two vehicle travel lanes with no shoulders or pedestrian facilities. Despite the fact that many of these roadways are open for public vehicle traffic, the roadways in these more rural areas currently function more like recreational trails, with little to no vehicle traffic and only recreational pedestrian and bicycle traffic. The County, CSUMB, Marina, Seaside, and TAMC all have adopted individual plans for the completion of a more comprehensive pedestrian and bicycle network throughout the more urbanized areas of the former base (note: Although Monterey does have a bicycle plan, it does not include any improvements within the former base).

3.15.6. Transit Service

Transit service within the Plan Area is provided by MST. A total of 11 routes traverse the former Army base: Routes 12, 16, 18, 25, 26, 69, 72, 74, 75, 76, and 77. Service is focused upon the developed areas within the Plan Areas, such as CSUMB, the POM Annex, and The Dunes at Monterey Bay shopping center, as well as the roadways that connect them. Areas with little to no development, such as the FONM, have either no or indirect access to transit; these areas comprise the majority of the property contained within the Plan Area.

3.15.7. Airports

There is one airport located within the Plan Area, the Marina Municipal Airport, which is a municipal airport serving private and recreational aircraft only. Monterey Peninsula Regional Airport, located southwest of the Plan Area, is a full-service commercial airport serving the County, with daily flights to other cities within California and neighboring states.

Table 3.15-1 Level of Service for Existing Conditions

Roadway	FORA Project Descriptions	Existing Conditions					
		Direction	AM	PM	Direction	AM	PM
Highway 1	4 → 6 Lanes (Fremont to Del Monte)	SB	C	D	NB	D	E
Monterey Rd Interchange	New Interchange @ Monterey Rd/Hwy 1	SB Off	N/A	N/A	NB Off	N/A	N/A
		SB On	N/A	N/A	NB On	N/A	N/A
Highway 156	4 Lane Freeway	EB	B	C	WB	B	B
Highway 68	Operational Improvements	EB	A	C	WB	B	B
Davis Road	4 Lanes SR-183 → Blanco Rd.	SB	C	C	NB	C	E
Davis Road	4 Lanes Blanco → Reservation Rd	NB	A	A	SB	A	A
Reservation Road	4 Lanes East Garrison Gate → Watkins Gate	EB	A	A	WB	A	A
Reservation Road	4 Lanes Watkins Gate → Davis Rd	EB	A	A	WB	A	A
8 th Street ⁽¹⁾	2 Lanes 2 nd Ave → Inter-Garrison Rd	EB	A	A	WB	B	A
2 nd Avenue	2 Lanes Imjin Parkway → Del Monte Blvd	EB	N/A	N/A	WB	N/A	N/A
Inter-Garrison ⁽¹⁾	4 Lanes Eastside Pkwy → Reservation Rd	WB/SB	B	B	EB/NB	B	B
Gigling Road ⁽¹⁾	4 Lanes General Jim Moore Blvd → Eastside Rd	EB	A	A	WB	A	A
General Jim Moore Blvd	2 → 4 Lanes Normandy Rd → McClure Way ✓	SB	A	A	NB	A	A
General Jim Moore Blvd	2 → 4 Lanes McClure Way → Coe Ave ✓	SB	A	A	NB	A	A
General Jim Moore Blvd	2 → 4 Lanes Coe Ave → S Boundary Rd ✓	SB	B	A	NB	A	B
Salinas Avenue	2 Lanes Reservation Rd → Abrams Dr	SB	N/A	N/A	NB	N/A	N/A
Eucalyptus Road ⁽¹⁾	2 Lanes General Jim Moore Blvd → Parker Flats ✓	WB	A	A	EB	A	A
Eastside Parkway	2 Lanes Eucalyptus Rd → Schoonover Dr	WB	N/A	N/A	EB	N/A	N/A
South Boundary ⁽²⁾	2 Lanes General Jim Moore Blvd → York Blvd	EB	C	D	WB	C	D
Imjin Parkway ⁽¹⁾	4 Lane Minor Arterial	WB	D	B	EB	B	D
Del Monte Blvd ⁽¹⁾	4 Lane Principal Arterial	NB	A	A	SB	A	A
Fremont Blvd ⁽¹⁾	4 Lane Minor Arterial	NB	A	A	SB	A	A

(1) LOS based on base year model volumes due to lack of traffic counts
(2) LOS based on traffic volumes from the 2005 study due to lack of traffic counts
Checkmark indicates that the project has been constructed.

Source: FORA Fee Reallocation Study: Deficiency Analysis and Fee Reallocation Fiscal Year 2016/2017 (Kimley Horn, 2017)

Table 3.15-2 Level of Service for Build Alternative CIP – (at horizon year 2035)

Roadway	FORA Project Descriptions	Build Alternative CIP					
		Direction	AM	PM	Direction	AM	PM
Highway 1	4 → 6 Lanes (Fremont to Del Monte)	SB	C	E	NM	E	F
Monterey Rd Interchange	New Interchange @ Monterey Rd/Hwy 1	SB Off	A	A	NB Off	A	A
		SB On	A	A	NB On	A	A
Highway 156	4 Lane Freeway	EB	B	C	WB	C	B
Highway 68	Operational Improvements	EB	A	C	WB	B	B
Davis Road	4 Lanes SR-183 → Blanco Rd	SB	D	C	NB	C	D
Davis Road	4 Lanes Blanco Rd → Reservation Rd	NB	B	C	SB	C	B
Reservation Road	4 Lanes East Garrison Gate → Watkins Gate	EB	B	C	WB	C	B
Reservation Road	4 Lanes Watkins Gate → Davis Rd	EB	B	E	WB	E	C
8 th Street	2 Lanes 2 nd Ave → Inter-Garrison Rd	EB	A	A	WB	A	A
2 nd Avenue	2 Lanes Imjin Parkway → Del Monte Blvd	EB	C	A	WB	A	A
Inter-Garrison	4 Lanes Eastside Parkway → Reservation Rd	WB/SB	D	B	EB/NB	B	D
Gigling Road	4 Lanes General Jim Moore Blvd → Eastside Rd	EB	B	B	WB	B	B
General Jim Moore Blvd	2 → 4 Lanes Normandy Rd → McClure Way ✓	SB	B	B	WB	B	B
General Jim Moore Blvd	2 → 4 Lanes McClure Way → Coe Ave ✓	SB	A	B	NB	A	B
General Jim Moore Blvd	2 → 4 Lanes Coe Ave → S Boundary Rd ✓	SB	C	C	NB	B	C
Eucalyptus Road	2 Lanes General Jim Moore Blvd → Parker Flats ✓	WB	B	B	EB	B	B
Eastside Parkway	2 Lanes Eucalyptus Rd → Schoonover Dr	WB	E	C	EB	C	D
South Boundary	2 Lanes General Jim Moore Blvd → York Blvd	EB	C	B	WB	B	C

Checkmark indicates that the project has been constructed.

Source: FORA Fee Reallocation Study: Deficiency Analysis and Fee Reallocation Fiscal Year 2016/2017 (Kimley Horn, 2017)

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3.16. UTILITIES

3.16.1. Introduction

This section assesses the potential impacts on public utilities and service systems from Proposed Action and alternatives. Utilities and service systems discussed include potable water service, wastewater service, solid waste facilities, and electricity and natural gas. Key sources include: Volume 1 of the Army's FEIS and FSEIS, Volume 4 of the Reuse Plan and its supporting technical appendices, and other relevant documents as referenced.

3.16.2. Regional Setting

3.16.2.1. Water Distribution and Supply

Wells provide the sole source of water supply for former Fort Ord. The main potable supply wells are located in the Salinas Valley groundwater basin, and one supply well is located in the Seaside groundwater basin. Two regional water management agencies have jurisdiction over groundwater production at former Fort Ord. The MCWRA is responsible for regulation and supply of water from the Salinas Valley Groundwater Basin, the source supply for the Marina Coast Water District (MCWD). The MPWMD is responsible for regulation and supply of water from the Seaside Valley Basin.

In 1996, MCWD was selected by FORA to take over conveyance of the water supply and wastewater systems at the former Fort Ord community, including Federal and State land, and portions of the cities of Seaside, Monterey, Del Rey Oaks, Marina, and portions of unincorporated Monterey County. In November of 2001, water supply and wastewater systems were conveyed through a Public Benefit Conveyance to MCWD; the District is responsible for providing water supply and wastewater collection service throughout the former Fort Ord military base.

In approving the Reuse Plan, FORA adopted a "Constrained Development" Scenario that significantly reduced development potential from what was identified in the 1996 "Public Draft" Reuse Plan, and which includes utilization of a maximum of 6,600 AFY of water throughout the entire former Fort Ord base, including all jurisdictions as established per Agreement No. A-06404 between the U.S. Army and the Monterey County Water Resources Agency. The U.S. Army retained 1,729 AFY of the 6,600 AFY for its use in the former Fort Ord, and the balance has been sub-allocated by FORA to the various jurisdictions within the Ord Community. This total was not distributed among the various jurisdictions, but each jurisdiction was allocated a water supply that could be used for development and that cannot be exceeded. FORA Resolution 98-1 also requires jurisdictions to include policies consistent with this "constrained scenario." Future development within the former Fort Ord military base will be constrained by this existing water allocation.

3.16.2.2. Wastewater

The former Fort Ord lies within the service boundary of the Monterey One Water (M1W, formerly the Monterey Regional Water Pollution Control Agency). As stated above, MCWD provides wastewater collection services to the former Fort Ord, with treatment performed at the M1W Regional Wastewater Treatment Plant. MCWD's wastewater collection facilities in the project area include ownership and operation of 20 lift stations, more than 140 miles of gravity sewer pipeline and 7 miles of forced main to convey wastewater to the M1W Regional Wastewater Treatment Plant. The regional plant has a design and permitting capacity of 29.6 million gallons per day (MGD), a permitted capacity of 29.6 MGD, and existing flows of varying between 17-18 MGD reduced from previous years when flows averaged 19-21 MGD and from the flows reported in the Reuse Plan EIR which reported average existing flows of 20 MGD. Thus, future development within the former Fort Ord area would not be constrained by wastewater system capacity.

Seaside County Sanitation District (SCSD) also provides wastewater services to portions of the City of Seaside and Del Rey Oaks within the former Fort Ord. The SCSD is a special district responsible for the maintenance and operation of the sanitary sewer collection system serving the Cities of Del Rey Oaks, Sand City and Seaside. SCSD's sanitary sewer collection system serves an area of approximately 2,400 acres with a population of about 30,000. The sewer system consists of approximately 70 miles of pipeline with 930 manholes, 475 rod holes, and four lift stations. The wastewater is ultimately pumped to the M1W Regional Wastewater Treatment Plant.

3.16.2.3. Natural Gas and Electricity

The former Fort Ord is located with the jurisdiction of MBCP, a locally-controlled public agency in partnership with PG&E for power services; please refer to **Section 3.7, Energy** for more information on State and local energy consumption as well as MBCP and PG&E power generation sources.

3.16.2.4. Solid Waste

Solid waste generated on former Fort Ord is collected by the Monterey Regional Waste Management District (MRWMD), which operates a landfill, recycling, and energy recovery facility north of Marina. The landfill operates 6 days per week and is permitted to receive 3,500 tons of waste per day. The landfill has a remaining capacity of approximately 48.5 million cubic yards and is expected to reach its permitted capacity in 2161 (MRWMD, 2013a). The landfill receives approximately 300,000 tons of waste per year, which averages to less than 1,000 tons of waste per day (MRWMD, 2013a). In addition to the more commonly recycled and reused materials (such as paper, cardboard, bottles, and cans), materials targeted by operators at the materials recovery facility include commercial waste, wood waste, and yard waste, construction and demolition debris, and materials in self-haul loads (MRWMD, 2013b). Further, the Monterey Regional Waste Management District is currently installing a new landfill module that will provide adequate capacity through 2028.

3.16.2.5. Stormwater

The former Fort Ord consisted of an extensive design of storm sewer branches, separate from the sanitary sewer lines, that fed into major lines running either to Monterey Bay or inland to the Salinas River basin. However, through the Reuse Plan, FORA was obligated to eliminate all ocean storm water discharges and to infiltrate all storm water east of Highway 1. In 2003, FORA completed a project to divert storm water runoff from the four outfalls to temporary infiltration areas west of Highway 1. The temporary infiltration areas will be removed and restored under a contract with State Parks. All former Fort Ord developments are required by the land use jurisdictions to contain all storm water runoff on-site.

3.16.3. Regulatory Framework

3.16.3.1. Federal

Safe Drinking Water Act

The Safe Drinking Water Act is the primary Federal law, administered by the U.S. EPA, which regulates the quality of drinking water and establishes standards protecting public health and safety. The California Department of Health Services implements the Safe Drinking Water Act and oversees public water system quality statewide, establishing legal drinking water standards for contaminants that could threaten public health.

3.16.3.2. State

California Building Codes

The CalGreen Standards Code in Title 24, CCR requires newly constructed buildings to divert from landfills at least 50 percent of the construction materials generated by a project (CalGreen Standards, CCR Sections 4.408 and 5.408). In addition, certain additions and alterations to non-residential buildings or structures shall also recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition debris (CalGreen Standards, CCR Section 5.713).

California Public Utilities Commission

The CPUC is responsible for ensuring that investor-owned (private) water, energy, and telecommunications utilities deliver safe, clean, and reliable services to their customers at reasonable rates. The CPUC adopts Rules of Practice and Procedure and issues General Orders to regulate various aspects of rates, services, facilities, and the safety and financial

practices of utilities, including provisions regarding water quality. All major investment projects must be approved in advance by the CPUC after undergoing CEQA review.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Board (CIWMB) was created to oversee, manage, and track waste generated in California. The authority and responsibilities of the CIWMB were promulgated in AB 939 and SB 1322, which were signed into law as the California Integrated Waste Management Act of 1989 (PRC, Division 30). The California Integrated Waste Management Act, as modified by subsequent legislation, mandated all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by 2000 (PRC Section 41780). In January 2010, the CIWMB changed its name to CalRecycle.

AB 341, which amends the California Integrated Waste Management Act of 1989 and was adopted by the California legislature in October 2011, directs CalRecycle to adopt a State policy that actively seeks to achieve a goal of diverting 75 percent of solid waste from landfills by 2020. The new legislation focuses largely on commercial waste generators, as this sector was identified as the most in need of improved waste management. AB 341 does not alter the 50 percent diversion mandate; rather, it is a “legislative declaration of policy” to guide CalRecycle’s administration of the California Integrated Waste Management Act.

A jurisdiction’s diversion rate is the percentage of total generated waste it diverts from disposal through source reduction, reuse, and recycling programs. The State determines compliance with the 50 percent diversion mandate through a complex formula. Use of the formula requires cities and counties to conduct empirical studies to establish a base-year waste generation rate against which future diversion is measured. The diversion rate in subsequent years is determined through deduction instead of direct measurement. Rather than counting the amount of material recycled and composted, the city or county tracks the amount of material disposed of at landfills and then subtracts that amount from the base-year amount; the difference is assumed to be diverted (PRC Section 41780.2).

Utility Notification Requirements

California law (Government Code Section 4216 et seq.) requires owners and operators of underground utilities to become members of, participate in, and share the costs of a regional notification center. Underground Service Alert North (USA North) is the notification center for the proposed project area. USA North receives planned excavation reports and transmits the information to all participating members that may have underground facilities at the location of excavation. The USA North members will then mark or stake their facility, provide information, or give clearance to dig (USA North, 2013).

3.16.3.3. Regional/Local

Monterey County Integrated Waste Management Requirements

The Monterey County Integrated Waste Management Plan incorporates relevant provisions of the CalGreen Standards, which the County has adopted. Diversion rates related to construction are from the CalGreen Standards. Section 5.408.1 of the code requires non-residential projects to recycle and/or salvage for reuse a minimum of 50 percent of nonhazardous construction and demolition waste. Further, Section 5.408.3, excavated soil and land clearing debris, requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled (unless the vegetation or soil is contaminated with disease or pest infestation).

City of Seaside Urban Storm Management and Discharge Control

The City of Seaside Municipal Code Chapter 8.46 (Urban Storm Management and Discharge Control) regulates storm water discharge to ensure the health, safety, and general welfare of citizens, and to protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the CWA. The provisions of this regulation apply to all water entering the City’s storm drain system generated on any developed and undeveloped lands lying with the city.

3.16.3.1. FORA Reuse Plan

According to the Reuse Plan, development within the former Fort Ord has the potential to adversely impact utilities. In order to ensure that potential impacts are minimized, the Reuse Plan identifies a number of policies to protect utilities. The Reuse Plan is the overarching planning document affecting the redevelopment of the former Fort Ord, and, therefore, a detailed discussion of each of the municipalities' general plans is not provided (i.e., County of Monterey, City of Marina, City of Seaside, City of Del Rey Oaks, and City of Monterey). All general plans for affected jurisdictions must be consistent with the Reuse Plan in accordance with Chapter 8 of the FORA Master Resolution.

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1. INTRODUCTION

The analysis contained in this chapter evaluates the potential physical effects associated with ITP issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively affect the environment in accordance with State CEQA Guidelines (Section 15064(d)) and CEQ NEPA Regulations (40 CFR 1508.8). NEPA and CEQA require that the direct, indirect, and cumulative effects of proposed actions be assessed and disclosed. For the purposes of this EIS/EIR, the terms “effects” and “impacts” are used interchangeably (CEQA Guidelines 15358 and 40CFR 1508.8). The CEQA Guidelines and NEPA Regulations define three types of effects (or impacts):

1. Direct effects are caused by the action and occur at the same time or place (NEPA 40 CFR 1508.8(a) and CEQA Guidelines 15064(d)(1)).
2. Indirect effects are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (NEPA 40 CFR 1508.8). Indirect effects may include growth inducing effects and other effects related to induced change in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (CEQA Guidelines Section 15358(a)(2)). If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect change in the environment (CEQA Guidelines Section 15064(d)(2)).
3. Cumulative impact is an impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what entity (Federal, non-Federal, or private) is taking the actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (NEPA 40 CFR 1508.7 and CEQA Guidelines Section 15355).

Direct and indirect impacts can also vary in duration and result in temporary, short-term, and long-term effects on the physical environment. A *temporary* effect would occur only during the activity. A *short-term* effect would last from the time an activity ceases to some intermediate period of approximately one to five years. A *long-term or permanent* effect would last longer than five years after an activity ceases. Long-term effects may be the result of ongoing maintenance and operation of a project or may result in a permanent change in the condition of a resource, in which case it could be considered a *permanent* effect.

The effects of the Proposed Action and alternatives are analyzed over a 50-year study period, which was selected primarily because the Proposed Action Alternative includes a 50-year permit term. Although the HMAs established under the Proposed Action Alternative would be managed and monitored in perpetuity, the adverse effects of the Proposed Action Alternative would occur from the covered activities implemented during the 50-year permit term. To present a consistent analysis for the No Action Alternative and Reduced Take Alternative, the same 50-year study period was used for all alternatives.

4.1.1. Previous and Future Environmental Review

The disposal and subsequent reuse of the former Fort Ord has been the subject of extensive environmental review. In compliance with NEPA, the Army prepared a FEIS and FSEIS relating to the disposal and reuse of the military base as a result of base closure. In compliance with CEQA, FORA prepared an EIR evaluating the environmental impacts associated with the adoption of the Reuse Plan (Volume 4 of the Reuse Plan). The Reuse Plan provides the planning framework for the redevelopment of Fort Ord after base closure. These environmental analyses evaluated the potential adverse environmental effects associated with the disposal and reuse (i.e., implementation of the Reuse Plan) of the former Fort Ord at a programmatic level. These analyses were prepared in accordance with the requirements of NEPA and CEQA, respectively.

In addition to the environmental analyses conducted by the Army and FORA, participating land use jurisdictions have also conducted environmental review on each of their respective general plans, including those portions of the former Fort

Ord that are located within their jurisdictional boundaries. Development within the Plan Area, which is a covered activity under the Draft Fort Ord HCP, is development and growth that is planned under the general plans of the County and incorporated cities. The environmental impacts from this growth in the region were evaluated in prior CEQA documents for each of the local general plans listed below:

- County of Monterey, General Plan EIR (ICF, 2010);
- City of Marina, General Plan EIR (Lamphier & Associates, 2000);
- City of Seaside, General Plan EIR (City of Seaside and Cotton/Bridges/Associates, 2004);
- City of Del Rey Oaks, General Plan EIR (DD&A, 1997b); and
- City of Monterey, General Plan EIR (City of Monterey and EMC, 2005).

The FORA Act indicates that all former Fort Ord property that has been transferred from the Federal government must be used in a manner that is consistent with the Reuse Plan pursuant to Chapter 8.0 of the FORA Master Resolution, except for property transferred to the BOT/CSUMB or the UC that is used for educationally-related or research-oriented purposes, and for property transferred to State Parks. For BOT/CSUMB, UC, and State Parks, proposed development projects are required to be consistent with their long range, master, or general plans; project consistency is reviewed during the project approval and environmental review processes with these entities acting as lead agencies under CEQA (CSUMB 2007 Master Plan, 2009; UC MBEST Master Plan, 2014; and Fort Ord Dunes Preliminary Master Plan and EIR, 2004). These agencies have conducted environmental review for their plans within the former Fort Ord (CSUMB 2007 Master Plan EIR, 2009; Marina Municipal Airport EA/EIR, 1995; and Fort Ord Dunes State Park Preliminary Master Plan and EIR, 2004). These analyses considered the environmental effects associated with the build-out of each of the land use jurisdictions according to the development assumptions contained in their applicable planning documents. The analyses considered the effects of planned future development, including direct, indirect, and cumulative effects, associated with the redevelopment of the former Fort Ord. The analyses in the prior environmental documents discussed above disclosed the potential environmental effects associated with redevelopment activities on Fort Ord and provided programmatic mitigation measures to minimize the extent of adverse effects associated with new development within the Plan Area. With the exception of BOT/CSUMB, UC, and State Parks, the Reuse Plan effectively replaces all environmental policies of the individual, adopted general plans of the local jurisdictions as they apply to former Fort Ord, so that policy consistency is ensured.

The Reuse Plan is intended to serve as a general plan to guide physical development on the former Fort Ord and is not a commitment to any specific project, construction schedule, or funding priority. Each specific development project that implements the Reuse Plan will be approved individually and will be accompanied by a tiered environmental analysis from the program-level Reuse Plan EIR in accordance with CEQA. Future tiered environmental review prepared for individual projects will focus on environmental impacts that have not been fully addressed in the program-level EIR prepared for the Reuse Plan. Some of the approved projects include, but are not limited to: The Dunes at Monterey Bay, Cypress Marina Heights, East Garrison Development, Seaside Highlands, and Seaside Resort. Each of these projects has undergone project-specific environmental review.

For purposes of this analysis, this EIS/EIR assumes that future development within the Plan Area will occur consistent with the development assumptions contained in the Reuse Plan and the relevant land use plans of the affected land use jurisdictions. The reasonably foreseeable environmental effects of these activities are assessed using the EIRs for those respective plans. As a result, Sections 4.2 through 4.16 of this chapter may incorporate certain information or analysis available from previous environmental documents. NEPA and CEQA regulations allow information or analysis previously presented in another document to be incorporated by reference into an EIS or EIR. If the analysis and assumptions used in the referenced document are determined to be appropriate for this EIS/EIR analysis, a brief summary or description of the incorporated information or analysis will be provided, including pertinent page numbers or other relevant identifying information (40 CFR 1502.21, 43 CFR 46.135, and CEQA Guidelines 15150[c]).¹ These plans provide a broad outline for future development land use patterns within the former Fort Ord. In addition, this EIS/EIR

¹ As required pursuant to CEQA Guidelines §15150(b), copies of these documents are available for public review and inspection at the FORA office located at 920 2nd Ave., Suite A, Marina, CA 93933.

assumes that all future development activities will be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs. While the reasonably foreseeable environmental effects of these activities are assessed in this EIS/EIR, it would be speculative to identify more detailed, project-specific impacts and mitigation measures for future development activities under each EIS/EIR alternative than what has been identified in the various plan EIRs at a programmatic level.

4.1.1.1. Baseline

As discussed in Chapter 3, Section 3.1.2, *Baseline*, unless otherwise noted, the baseline conditions under CEQA for this analysis are those when the revised administrative draft of the EIS/EIR commenced, which was January 2017. For the purposes of NEPA, the baseline consists of existing conditions and expected future conditions if the Proposed Action is not approved (i.e., the No Action Alternative).

4.1.1.2. Resources Considered in Detail in this EIS/EIR

An analysis of the primary environmental issues was conducted for this EIS/EIR to determine the potentially significant effects of the Proposed Action and alternatives. The environmental resources considered in this EIS/EIR were determined based on review of NEPA Regulations, Appendix G of the CEQA Guidelines, and public input during the NOI and NOP scoping periods. The following key issue areas are considered in detail in this EIS/EIR:

- Aesthetics,
- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural Resources,
- Energy,
- Geology and Soils,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Land Use and Planning,
- Noise,
- Public Services,
- Socioeconomics and Environmental Justice,
- Transportation and Circulation, and
- Utilities.

In Sections 4.2-4.16, the level of detail used when describing environmental impacts for each resource topic varies in proportion to their significance, meaning that severe impacts are described in more detail than less consequential impacts, as required by 40 CFR 1502.2(b) and CEQA Guidelines Section 15126.2(a). The purpose is to help decision makers and the public focus on each alternatives' key effects. CEQA requires that an EIR be prepared with a sufficient degree of analysis to provide decision makers with information that enables them to make an informed decision. An evaluation of the environmental effects of a proposed project under CEQA need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible (CEQA Guidelines Section 15151).

4.1.1.3. Approach to Analysis of Resources Considered

This EIS/EIR has been prepared to address the legal requirements of NEPA and CEQA. Issuance of the ITPs by the Wildlife Agencies and the approval and implementation of the Draft Fort Ord HCP by the Permittees is the Proposed

Action considered in this EIS/EIR. This EIS/EIR is being circulated for review along with the Draft HCP. The Draft HCP is incorporated by reference into this EIS/EIR. There are key similarities and differences between NEPA and CEQA analysis requirements that are relevant to this EIS/EIR:

1. Baseline for Impact Analysis – For the purposes CEQA, the baseline is existing conditions. For the purposes of NEPA, the baseline consists of existing conditions and expected future conditions if the Proposed Action is not approved (i.e., the No Action Alternative).
2. No Action Alternative Analysis – For the purposes of NEPA and CEQA, the No Action Alternative is compared to existing conditions.
3. Proposed Action Analysis – For the purposes of NEPA, the Proposed Action is compared to the No Action Alternative. For the purposes of CEQA, the Proposed Action is compared to existing conditions.
4. Alternative Analysis – For the purposes of NEPA, the Reduced Take Alternative is compared to the No Action Alternative. For the purposes of CEQA, the Reduced Take Alternative is compared to the Proposed Action.
5. Cumulative Effects Analysis – The cumulative effects analysis will follow the same approach as described in #3 above for the Proposed Action analysis where, for the purposes of NEPA, the Proposed Action is compared to the No Action Alternative. For the purposes of CEQA, the Proposed Action is compared to existing conditions.

Direct and Indirect Effects

As defined above, direct impacts are effects caused by the project and occur at the same time and place as the project. Where applicable and when data was available, Sections 4.2-4.16 estimate the permanent direct effects of each alternative using GIS technology. The impact analysis included use of GIS data and map overlays of the planned development and other covered activities under each alternative. When the map overlays showed an overlap between covered activities and an existing environmental resource (e.g., oak woodland), the analysis assumed that resource within the overlap would be removed and the covered activity would occur in that area. GIS was used to quantify the acres of overlap, and, thus, the acreage of impact.

Indirect impacts are effects of the project that occur later in time, or are farther removed in distance, but still reasonably foreseeable, as defined above. Indirect impacts often relate to changes in land use, such as the addition of new impervious surface, filling of wetlands, or modifications of habitat. Other examples include changes in wildlife dispersal due to habitat fragmentation, changes in use of a recreational facility due to improved access or visibility, or changes in travel patterns. New development and associated infrastructure are known to result in indirect impacts that result from physical changes to the existing landscapes and watersheds, removal or changes to existing vegetation, the construction and maintenance of buildings and infrastructure, new and increased human activities, and increased vehicle traffic. Sections 4.2-4.16 identify potential indirect impacts that may result from each of the alternatives. For many of the resource sections, the exact location and exact quantity or intensity of the future indirect effects cannot be accurately quantified at this time. As a result, most of the indirect impacts for each alternative are described and analyzed qualitatively.

No Action Alternative

Environmental Consequences

Expected changes to the resources in the absence of the Proposed Action are the subject of the No Action analysis. This alternative describes the expected activities within the Plan Area over a 50-year period to correspond to the 50-year permit term under the Proposed Action. Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees.

The No Action Alternative includes development activities within the 4,241 acres of the designated development areas that are primarily developed and void of vegetation and habitat for listed species, and, thus, would not require ITPs from the USFWS and/or CDFW. Instead, endangered species permitting and mitigation to develop within the vegetated designated development areas would continue to occur on an individual, project-by-project basis. The amount of resource avoidance and preservation required by the expected regulatory setting could restrict the amount of development within the vegetated designated development areas. While the extent and number of individual ITPs the USFWS and/or CDFW would approve is unknown, for the purpose of this analysis, it is assumed that approximately 25% of the vegetated

development areas (1,263 acres) could be developed during the 50-year period and the remaining vegetated development areas (3,788 acres) would be suitable, available, and provide the mitigation lands required by ITPs, if needed.

In addition, under the No Action Alternative, ITPs would not be issued by the Wildlife Agencies for development activities or HMP-required habitat management activities within the HMP-designated habitat areas. As discussed in Section 2.3.3.2, *Habitat Management Activities*, in Chapter 2, the habitat management activities required by the HMP are primarily described at a conceptual level in the HMP since specific requirements will be determined through the preparation of RMPs for the various habitat areas. Most of the HMP-required habitat management activities require ground disturbance, which could result in take of Federal and/or State listed species. Therefore, only a subset or limited HMP-required habitat management activities (i.e., preservation, research, and some restoration activities) could be implemented in the habitat reserve areas without ITPs. Development activities and most HMP-required habitat management activities within the habitat reserve areas would also need to obtain individual ITPs on an individual, project-by-project basis if take of listed species would occur. Given the limited availability of mitigation land in the area and for the purpose of this analysis, it is reasonably assumed that development activities within the non-Federal HMP-designated habitat reserve areas would not be feasible and would not occur.

Since the habitat management activities within HMAs proposed as covered activities in the Draft Fort Ord HCP would not be implemented under the No Action Alternative, a less comprehensive mitigation strategy would be in place. Therefore, a significant difference between the No Action Alternative and Proposed Action is in how the biological resources would be considered under the No Action Alternative:

- Biological resource impacts from take associated with development and other related activities would be considered on a project-by-project basis, with no regional framework for impact avoidance and minimization.
- Biological resource mitigation would be considered on a project-by-project basis, with various types of mitigation measures including compensatory mitigation in off-site areas. There would be no established regional framework for conservation of natural communities and preservation of habitat linkages.
- There would be no added conservation values beyond the specific mitigation required for each individual project.

While implementation of the HMP would be required and some regional benefits would result, the HMP is not as comprehensive as the Draft HCP's conservation strategy, nor does it include the extensive, specific AMMs and MMs required by the Draft HCP. Impacts to biological resources and associated mitigation by individual projects would continue to result in project-by-project compensation.

For describing the No Action Alternative, the CEQA and NEPA basis of comparison is existing conditions. For the No Action Alternative, in each resource chapter, there is a discussion of the future condition of the resource without the Draft HCP. This is compared to existing conditions to provide a description of the environmental effects of the No Action Alternative.

Because similar development activities are anticipated under the No Action Alternative as under the Proposed Action but within a reduced development footprint and at a slower pace, the analysis of the No Action Alternative is based heavily on the analysis of covered activities in the HCP. The analysis in the HCP addresses most of the reasonably foreseeable activities in the Plan Area associated with development activities. In addition, the analysis is based on extensive consultation with the Permittees and Wildlife Agencies, resulting in a detailed database of activities that allows for a quantitative analysis of anticipated changes in land uses. The process of identifying these activities is described in Chapter 4, *Impact Assessment and Levels of Take*, in the Draft HCP. The land use changes associated with these activities would have various types of effects on each of the resources considered in this document, including direct and indirect effects, temporary effects associated with construction, and long-term effects of operation. Conclusions about the significance of these impacts are based on the severity of the expected land use changes and the adequacy of the regulatory framework to provide effective mitigation.

Proposed Action***Environmental Consequences***

As described in Chapter 2, *Proposed Action and Alternatives*, the Proposed Action evaluated in this EIS/EIR is permit issuance and the approval and implementation of the Draft Fort Ord HCP. The approval of the Proposed Action would provide incidental take authorization for the Permittees, which include the following agencies and organizations with local land use authority and/or jurisdiction on the former Fort Ord under California State law, and qualify for lead agency status under CEQA:

- FORA
- UC
- City of Marina
- City of Del Rey Oaks
- BOT/CSUMB
- MPRPD
- the Cooperative.
- State Parks
- County of Monterey
- City of Seaside
- City of Monterey
- MPC
- MCWD, and

The Proposed Action identifies a number of “covered activities” for the purposes of incidental take authorization by the Wildlife Agencies. Covered activities include the following (please refer to Chapter 2, *Proposed Action and Alternatives*, for more detail on each activity):

- Development, including construction associated with development, in designated development areas;
- Allowable development in the HMAs;
- Operation and management activities within HMAs, including:
 - Operation, maintenance, and management activities associated with roads, trails, and fuelbreaks;
 - Beach management; and
 - Recreational and educational use.
- Future road corridors and infrastructure construction, operation, and maintenance within HMAs;
 - Inter-Garrison Road Widening;
 - Utilities, Easements, and ROWs (e.g., MCWD facilities);
 - FORTAG; and
 - City of Marina Airport Master Plan Update.
- HCP required actions that may result in take, including:
 - Revegetation, restoration, and enhancement;
 - Prescribed burning and alternative vegetative management;
 - Non-native invasive species control;
 - Erosion control for habitat restoration and enhancement; and
 - Monitoring.

This EIS/EIR addresses the effects of all covered activities under the Proposed Action and alternatives that would result in a “significant effect on the environment” according to CEQA, or would “significantly affect the quality of the human environment” according to NEPA.² For the purposes of this analysis, covered activities fall within two primary categories:

² Please refer to Section 4.1.3, *Thresholds of Significance and Level of Affect*, below for a detailed discussion of applicable CEQA and NEPA requirements related to significance and significance criteria.

- **Category 1 – Development activities**, which include: development, including construction associated with development, in designated development areas; allowable development in the HMAs; and construction, operation, and maintenance of the identified future road corridor and infrastructure projects within HMAs. As described in Chapter 2, *Proposed Action and Alternatives*, these activities include all types of development within the designated development areas, including public and private projects and all other activities that would result in ground-disturbance. In addition, these activities include all types of development within HMAs, including allowable development and construction, operation, and maintenance of roads and infrastructure projects. Allowable development in the HMAs includes the limited development of approximately 777 acres within the HMAs to support public recreation and open space uses or educational activities. The development of the future road corridor and infrastructure projects includes the construction, operation, and maintenance for the Inter-Garrison Road Widening, MCWD water facilities, FORTAG, and Marina Airport Master Plan Update projects. This analysis assumes that development activities would be conducted in accordance with the applicable policies contained in the adopted planning documents for each of the land use authorities.

As described in Section 4.1.1, *Previous and Future Environmental Review*, because information about the precise amounts, specific locations, and actual timing of future development projects over the 50-year study period is incomplete, these future development activities are analyzed at a program level in this EIS/EIR.

- **Category 2 – Habitat management activities**, which include operation and management activities within HMAs and HCP required actions that may result in take. Operation and management activities include: operation, maintenance, and management activities associated with roads, trails, and fuelbreaks; beach management; and recreational and educational use. HCP required habitat management and conservation activities that may result in take include:
 - Revegetation, restoration, and enhancement;
 - Prescribed burning and alternative vegetative management;
 - Non-native invasive species control;
 - Erosion control for habitat restoration and enhancement; and
 - Monitoring.

Because the amounts, locations, and timing of the habitat management activities are adequately defined in the Draft HCP, habitat management activities are analyzed at a project level in this EIS/EIR.

Identification of covered activities provides a basis to assess the anticipated level of take that may occur under the Draft Fort Ord HCP and to develop the appropriate conservation requirements. These covered activities are the specific activities or projects for which take authorization would be provided through the approval of the Draft Fort Ord HCP. Take authorization pursuant to the Draft Fort Ord HCP would subsequently be required via implementing ordinances adopted by each applicable jurisdiction/Permit Applicant (please refer to Chapter 2, *Proposed Action and Alternatives*, for a discussion of the Draft HCP implementation process).

Under the Proposed Action, the extent of development activities would occur consistent with the Reuse Plan and the applicable general plans of the affected land use jurisdictions. Take associated with development would occur over the 50-year permit term consistent with local general plans and other applicable planning documents, with the HCP providing a mechanism for the Wildlife Agencies to provide incidental take authorization for these lawfully undertaken covered activities. Where the Proposed Action Alternative differs from the No Action Alternative is the implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during implementation of covered activities, and a greater development footprint within the 50-year permit term. Thus, the Proposed Action adds a regional framework for biological resource impact avoidance, minimization, and mitigation, and for natural community conservation. This framework is provided by the HCP and is implemented as a result of permit issuance by the Wildlife Agencies. The Proposed Action impact analysis focuses on how permit issuance (implementation of the HCP) could affect the resource differently than under the No Action Alternative. The following concepts were used to help focus the analysis:

- The HCP conservation strategy would apply to all covered activities.
- All of the covered activities would be implemented using the AMMs and MMs identified in the HCP. More activities would be subject to AMMs and MMs under the Proposed Action than under the No Action Alternative.

Future development activities are not part of the “project” under CEQA that are subject to approval by the CEQA lead agency and Permittees, are not part of the “project” under CEQA that would be subject to permitting by the CDFW, and are not part of the “action” under NEPA that would be subject to permitting by the USFWS (please refer to Section 1.7, *Decisions to be Made*). The EIS/EIR “project” under CEQA and “action” under NEPA consists of the approval and implementation of the Draft HCP and issuance of the associated take permits, but not the actual construction of or discretionary entitlements of future development activities. Thus, the environmental impacts of future development activities in the Plan Area would not directly result from the decisions to be made for the Proposed Action. However, since future development activities are covered activities for which the ITPs would address take, the potential environmental impacts of future development activities as well as all other covered activities proposed for coverage under the ITPs are addressed in this EIS/EIR.

All covered activities are subject to the approval of the Permittees with jurisdiction over such projects. The issuance of the ITPs by the Wildlife Agencies provides compliance only with the ESA and CESA. Approval of the proposed Draft HCP does not confer or imply approval to implement the covered activities. Rather, as part of the standard approval process, individual projects will be considered for further environmental analysis and generally will receive separate, project-level environmental analysis under CEQA and, in some cases, NEPA for those projects involving Federal agencies. However, this EIS/EIR is intended to provide compliance with CEQA and NEPA for the approval of the Draft HCP and issuance of associated ITPs. As discussed above, because the Proposed Action facilitates the covered activities by addressing certain of the various statutory and regulatory requirements tied to project authorization (e.g., ESA and CESA), reasonably foreseeable environmental effects of the covered activities are discussed herein to provide context for the analysis of the Proposed Action and various alternatives. As described in Section 4.1.1, *Previous and Future Environmental Review*, it would be speculative to identify project-specific impacts and mitigation.

As described in Section 2.3.4.1, *Background*, under the Proposed Action, the Draft HCP distinguishes the habitat management activities, impacts and take, and preservation within Federal and non-Federal lands to meet permit issuance requirements. However, for the purposes of the analysis in the EIS/EIR and because the Proposed Action assumes issuance of both State and Federal ITPs, these characteristics are only distinguished when necessary.

4.1.1.4. Resources Not Considered in Detail

A preliminary analysis of the key environmental issues was conducted for this EIS/EIR to assess the potential for environmental resources to be significantly affected by the Proposed Action and alternatives. The environmental resources considered were based on the USFWS NEPA Handbook, Appendix G of the CEQA Guidelines, Volume 4 of the Reuse Plan, Army’s FEIS and FSEIS, public comments received during the scoping periods, and professional judgment.

Based on the preliminary analysis, it was determined that agricultural resources, and mineral resources will not be significantly affected by the Proposed Action or alternatives. Therefore, these environmental resources are not considered in detail in this EIS/EIR. The reasons for elimination are discussed in Chapter 3, Section 3.1.3, *Resource Areas Not Considered in Detail in this EIS/EIR*, in accordance with NEPA (40 CFR 1508.0) and CEQA (Section 15128).

4.1.2. Thresholds of Significance and Level of Affect

The analysis contained in this EIS/EIR evaluates the potential environmental consequences associated with the Proposed Action and alternatives in accordance with the requirements of CEQA and NEPA. This analysis is limited to evaluating whether the Proposed Action and alternatives would represent a “significant effect on the environment” under CEQA, or would “significantly affect the quality of the human environment” according to NEPA.

CEQA defines a *significant effect on the environment* as “a substantial, or potentially substantial, adverse change in the environment” (PRC Div. 13 21068). State CEQA Guidelines Section 15382 describes *adverse change* as an “adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” CEQ NEPA Regulations 1508.14 defines the *human environment* as “the natural and physical environment and the relationship of people with that environment.” *Significantly*, as used in NEPA, requires considerations of both context and intensity (CEQ NEPA Regulations 1508.27).

Significance criteria, or thresholds of significance, are commonly used under CEQA in order to determine the extent and magnitude of potential impacts. Under CEQA, a lead agency may rely on significance thresholds based on Appendix G of the State CEQA Guidelines or an adopted set of local thresholds, although it is not required (CEQA Guidelines 15064.7). NEPA does not set forth substantive criteria for determining the “significance” of potential effects. CEQ NEPA Regulations identify that the determination of significance is based on two criteria: context and intensity.

Each resource section of this EIS/EIR identifies the criteria used to assess the potential effects of the Proposed Action and alternatives. Significance criteria used in these analyses are based on both NEPA and CEQA standards, including Appendix G of the CEQA Guidelines and augmented with specific criteria identified in collaboration with the BLM and FORA. Where NEPA and CEQA standards differ, the more rigorous threshold was applied. This ensures that the criteria applied in the analysis are adequate under both Federal and State regulations and the mitigation measures identified will similarly meet both standards.

Each section in this chapter evaluates the effects of each EIS/EIR alternative. For the action alternatives (i.e., the Proposed Action Alternative and Reduced Take Alternative), there are typically separate discussions and effects consultations for each applicable significance criterion. The discussions are separated by a subheading for each different effect analysis, such as “Impact AES-1: Have a substantial adverse effect on a scenic vista.” At the end of each discussion, the analysis will include a significant finding in **bolded** text. However, for describing the No Action Alternative, the CEQA and NEPA basis of comparison is existing conditions. For the No Action Alternative, in each resource chapter, there is a discussion of the future condition of the resource without the Proposed Action. The future conditions of the resource without the Draft HCP are compared to existing conditions to provide a description of the environmental effects of the No Action Alternative.

Under NEPA, the basis of comparison for the Proposed Action Alternative is the No Action Alternative. The No Action Alternative “provides a benchmark, enabling decision-makers to compare the magnitude of environmental effects of the action alternatives” (40 CFR 1502.[d]). However, under CEQA, the basis of comparison for the Proposed Action Alternative is existing conditions (i.e., the information presented in Chapter 3, *Affected Environment*). To best satisfy the requirements of both laws, impact conclusions for the Proposed Action Alternative and Alternative 3, Reduced Take Alternative, are provided based on both a comparison with the No Action Alternative “benchmark” under a header titled “NEPA Level of Significance” and the existing condition baseline under a header titled “CEQA Level of Significance.”

In evaluating the potential impacts of the Proposed Action and alternatives, the level of significance is determined by applying the threshold of significance presented for each resource evaluation area. While CEQA requires that identification of the level of significance for each impact be stated in an EIR, NEPA regulations do not require such a discussion. To provide the degree of specificity required under CEQA, the following terminology is used to evaluate the level of significance of impacts discussed in this EIS/EIR. These terms are consistent with the generally accepted standards of CEQA compliance practice.

- A finding of *no impact* is made when the analysis concludes that the proposed action and alternatives would not affect a particular environmental resource. This impact level does not require mitigation.
- An impact is considered *less than significant* if the analysis concludes that there would be no substantial adverse change in the environment and no mitigation is required.
- An impact is considered *significant* or *potentially significant* if the analysis concludes that there would or may be a substantial adverse change in the environment. An impact may be considered *potentially significant* if the analysis cannot definitively conclude that an impact would occur as a result of the Proposed Action. Such an impact would, or may potentially, exceed the applicable significance threshold, but could be avoided or reduced

to a less-than-significant level with the application of the mitigation measure(s) described. Under CEQA, mitigation measures must be provided, where feasible, to reduce the magnitude of significant or potentially significant impacts.

- An impact is considered *significant and unavoidable* if the analysis concludes that there could be a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less-than-significant level.
- An impact is considered *beneficial* if the analysis concludes that there will be a positive change in the environment.
- *Mitigation* refers to measures that would be implemented to avoid or lessen potentially significant impacts. The mitigation measures would be proposed as a condition of project approval and would be monitored to ensure compliance and implementation. Mitigation includes:
 - Avoiding the impact altogether by not taking a certain action or parts of an action;
 - Minimizing the impact by limiting the degree or magnitude of the action and its implementation;
 - Rectifying the impact by repairing, rehabilitation, or restoring the affected environment;
 - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
 - Compensating for the impact by replacing or providing substitute resources or environments.
- A *residual impact* refers to the level of impact after the implementation of mitigation measures.

This EIS/EIR uses the term “mitigation” consistent with Section 15126.4(a)(1)(A) of the CEQA Guidelines, which states that an EIR shall “distinguish between measures which are proposed by the project proponents to be included in the project, and other measures proposed by the lead...agency...and not included in the project.” The Draft Fort Ord HCP’s conservation strategy contains AMMs and MMs, which are included as part of the project (i.e., is part of the Proposed Action) (please refer to Chapter 5, *Conservation Strategy*, of the Draft Fort Ord HCP). In each environmental resource section, AMMs and MMs from the Draft Fort Ord HCP that would reduce adverse impacts to environmental resources are identified when applicable. If no AMMs or MMs are applicable, or if additional measures are required to reduce impacts to a less-than-significant level beyond the implementation of AMMs or MMs, “Additional Mitigation” measures are identified.

4.1.3. Cumulative Effects

This section provides the context to the cumulative effects analysis, which is incorporated into each of the environmental resource section in this chapter. This section provides a discussion of the regulations, approach and scope, cumulative effects analysis area, past and ongoing actions that may have contributed to current environmental conditions, and future actions that may result in cumulative impacts.

4.1.3.1. NEPA and CEQA Requirements

NEPA requires Federal agencies to consider the effects of cumulative actions and cumulative impacts (1508.25 and 1508.7). CEQ’s NEPA Regulations 1508.7 defines a cumulative impact as an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative actions are those which when “viewed with other proposed actions have cumulatively significant impacts” and should be discussed in the impact statement (1508.25(a)(2)). In order to assist Federal agencies in assessing the extent of potential cumulative effects under NEPA, the CEQ developed a handbook entitled *Considering Cumulative Effects under the National Environmental Policy Act* (1997b). The analysis contained in this EIS/EIR follows the guidelines contained in that document to determine whether the Proposed Action or alternatives would, when combined with past, present, or reasonably foreseeable projects, cumulatively result in environmental effects. The CEQ Regulations provide for the inclusion of uncertainties when evaluating reasonably foreseeable significant adverse effects in an EIS. Section 1502.22

states that when there is “incomplete or unavailable information, the agency shall always make clear that such information is lacking.”

A cumulative impact under CEQA Guidelines Section 15355 is defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” CEQA Guidelines Section 15130 provides detailed instructions concerning the treatment of cumulative impacts under CEQA. Specifically, Section 15130(a) identifies that an EIR shall “discuss the cumulative impacts of a project when the project’s incremental effect is cumulatively considerable.” A cumulative impact is considered cumulatively considerable under CEQA when the “incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects” (CEQA Guidelines Section 15065(a)(3)). Section 15130(a)(1) states that an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR. CEQA further stipulates that the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence; however, the level of detail concerning cumulative impacts is not required to be as great as is provided for the effects attributed to the project (CEQA Guidelines Section 15130(b)). Moreover, CEQA Guidelines Section 15130(b)(3) further requires that the “geographic scope of the area affected by the cumulative effect” is defined and that the analysis should “provide a reasonable explanation for the geographic limitation used.”

Under NEPA, the cumulative effects of the Proposed Action are compared to the No Action Alternative. Under CEQA, the cumulative effects of the Proposed Action are compared to existing conditions. Also under NEPA, the cumulative effects of the Reduced Take Alternative are compared to the No Action Alternative. Under CEQA, the cumulative effects of the Reduced Take Alternative are compared to the Proposed Action.

4.1.3.2. Approach and Scope

Cumulative impacts are defined as two or more individual effects that, when combined together, are significant. The cumulative impacts from several projects is the change in the environment that results from the incremental impact of the development when added to other closely related past, present, and reasonably foreseeable projects. CEQA Guidelines Section 15130(b)(1) describes two methods for evaluating potential cumulative impacts: a list approach or projection approach. The list approach typically identifies all of the past, present, and probable future actions that may contribute to a cumulative impact, including those projects outside of the control of the agency. Alternatively, the cumulative impact analysis may rely on a summary of projections of future development described in local, regional, or statewide plans, or other similarly related planning documents. It is also common for the cumulative analysis to rely on a combined approach.

This EIS/EIR relies on a combined approach for the cumulative impact analysis. Relevant local land use plans (e.g., Reuse Plan, Marina, Seaside, Monterey, County, CSUMB, UC, and State Parks) and the AMBAG projections are used to establish the cumulative context. Most of the local land use plans involve planning projections of 20 to 30 years, while redevelopment of the former Fort Ord under the Reuse Plan is projected to occur over the next 40 to 60 years. This cumulative analysis addresses the environmental impacts that may occur over the 50-year permit term. It is uncertain what the environmental conditions will be in 2067, or what laws and regulations will be in place. Therefore, this cumulative assessment is qualitative due to the speculation involved with predicting the timing, design, density, and location of future actions over the next 50 years. The exception to this statement is that a few of the identified cumulative actions have quantifications available to evaluate cumulative impacts to some biological resources (please refer to Section 4.1.4.3, *Reasonably Foreseeable Future Actions*).

However, the cumulative analysis area could not be limited only to the growth projected by the local jurisdictions within the Plan Area. Therefore, the analysis in this EIS/EIR considers other past, present, and reasonably foreseeable actions that have the potential, when combined with the effects of the Proposed Action and alternatives, to result in cumulative effects. To determine the cumulative actions, this EIS/EIR reviewed other large-scale projects and planning efforts in the region that would likely result in impacts that are similar in kind or location to those included as habitat management activities in the Proposed Action and alternatives, and projects that would occur within the Plan Area but would be conducted or approved by a land use agency that is not a party to the Draft HCP. The following websites were reviewed

to identify cumulative projects in the region: local land use agencies (e.g., Cities of Marina, Seaside, Sand City, Del Rey Oaks, and Carmel-by-the-Sea, and County of Monterey), CEQAnet Database, U.S. EPA's NEPA websites, and the USFWS Ventura Office. In addition, the County's 2010 General Plan EIR was reviewed to identify cumulative projects. The cumulative projects in the region that were identified are described below. For the purposes of this analysis, past actions are assumed to have contributed to the current environmental conditions described in Chapter 3, Sections 3.1 – 3.16, and are not specifically listed below.

The area addressed in the cumulative analysis is primarily a portion of the County, including the incorporated cities. The exceptions are air quality, which is based on the NCCAB, and biological resources, which addresses a larger area based on the range of the species being impacted.

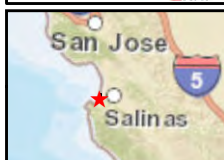
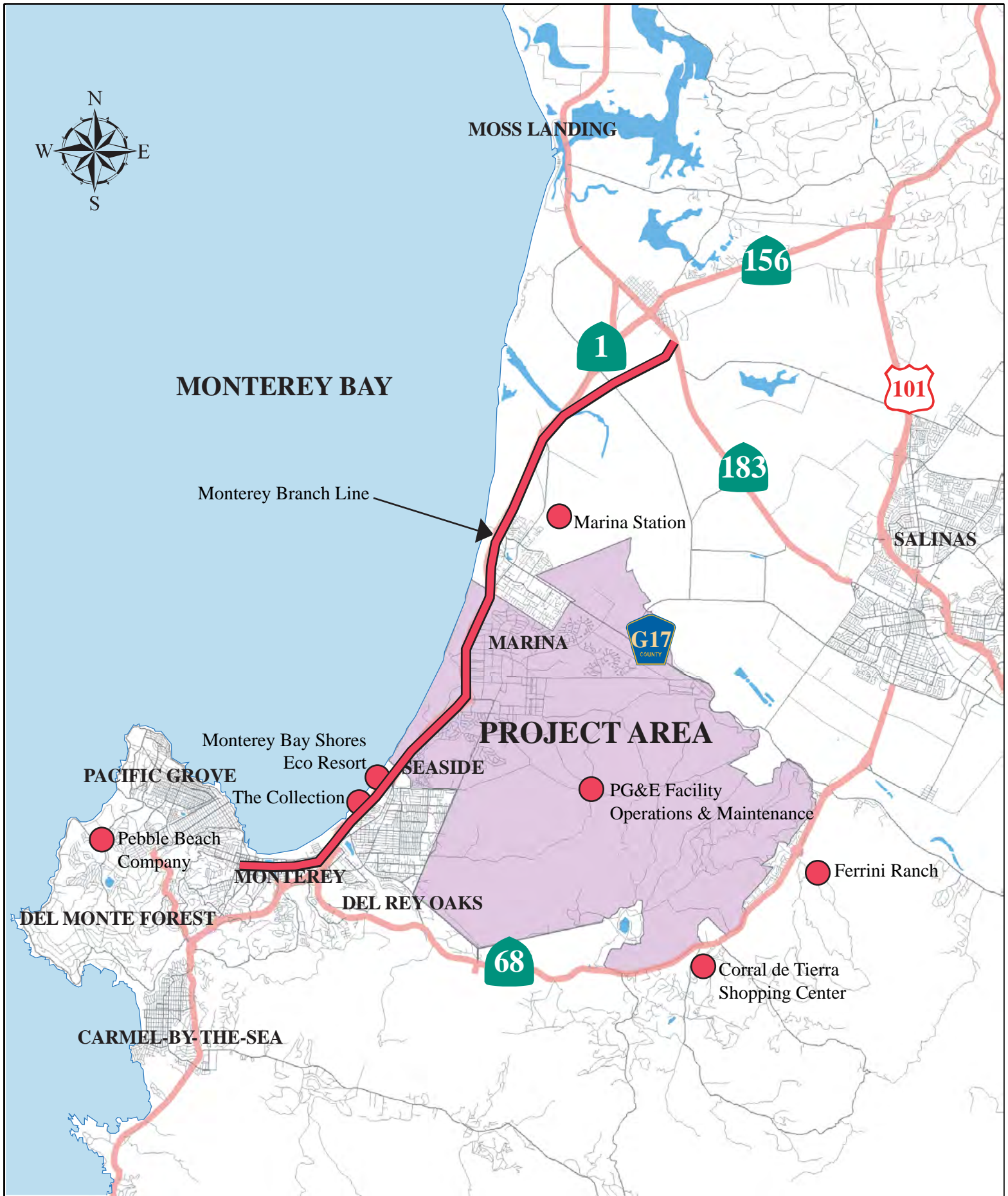
The cumulative effects of development on the former Fort Ord have been addressed in Volume 4 of the Reuse Plan, Army's FEIS and FSEIS, and the EIRs for each of the local land use jurisdictions for their general or master plans. In addition, cumulative impacts have been analyzed as part of the CEQA review for project-specific analyses at a specific plan or project-level (please refer to Section 4.1.1, *Previous and Future Environmental Review*). As described in Section 4.1.1.3, *Approach to Analysis of Resources Considered*, this EIS/EIR focuses on the direct, indirect, and cumulative environmental effects of permit issuance and the approval and implementation of the Proposed Action (i.e., Draft Fort Ord HCP) and alternatives. The habitat management activities within HMAs identified in Section 4.1.1.3, *Approach to Analysis of Resources Considered*, are the activities that would be authorized by permit issuance and Draft HCP approval and implementation.

4.1.3.3. Reasonably Foreseeable Future Actions

The Draft HCP considers cumulative conditions in its impact assessment to covered species and in the development of its conservation strategy. The Draft HCP considers cumulative impacts to covered species from the buildout of the former Fort Ord in accordance with the Reuse Plan and local land use plans. The Draft HCP considers specific projects that, when combined with the Draft HCP, may result in cumulative impacts to covered species (please refer to descriptions below). This EIS/EIR incorporates this analysis into the evaluation of potential cumulative impacts to biological resources and other environmental resources.

The following reasonably foreseeable future actions are included in the cumulative impact analysis at the end of each resource section in this chapter, and are generally depicted on **Figure 4.1-1**. The amount of detail on each of the projects varies, and, therefore, the analysis in this EIS/EIR could only be as detailed as the information available.

- **Marina Station** - Marina Station, located on a portion of the Armstrong Ranch, is a 320-acre development situated on either side of Del Monte Avenue along the northern limits of the City of Marina. The project proposal includes using Neo-Traditional design standards. Neo-Traditional neighborhoods include all the essential needs of daily life including living, working, shopping, learning and playing areas. Entitlements call for the development of 1,360 residential units to include approximately 887 single-family lots and 473 multi-family units. Affordable housing of 20 percent will be included. Additionally, the project will include approximately 60,000 square feet of Retail space, 144,000 square feet of office space, and 652,000 square feet of business park/industrial. Parks, playgrounds and open space will complete development of the site. The Marina City Council approved the project and certified the EIR in June 2009; however, the project was put on hold during the recession. There are discussions about a new developer potentially constructing the project.
- **Ferrini Ranch Subdivision** – Ferrini Ranch consists of the subdivision of an approximately 860-acre property into 185 residential lots including market-rate lots, clustered lots for workforce housing units, and lots for inclusionary housing units; one commercial parcel fronting on River Road, and 600 acres of open space. The project site is located on the south side of State Highway 68 between River Road and San Benancio Road in the vicinity of Toro County Park. This project was approved by the County of Monterey in December 2014; however, a lawsuit was filed and the development was put on hold. In August 2017, the court determined that the development could move forward and it is anticipated that construction may begin soon.



Title: **Cumulative Projects**
 File: Cumulative.pdf

Date: 8/20/2015
 Scale: N/A
 Project: 2444



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Figure
4.1-1

- **Pebble Beach Company** – The Pebble Beach Company project involves the development and preservation of sites within the Del Monte Forest in the County of Monterey. The applicant recently revised the project to include the renovation and expansion of visitor-serving uses; creation of single-family residential lots; roads, infrastructure, and trail improvements; and preservation areas. The project was approved by the County of Monterey Board of Supervisors in May 2012.
- **Corral de Tierra** – The Corral de Tierra Shopping Village project site is located at the intersection of State Highway 68 and Corral de Tierra Road, approximately seven miles southwest of the city of Salinas, in the Toro area of the County of Monterey. The site encompasses two separate lots of record totaling approximately 11-acres. The proposed project consists of the subdivision of the two existing lots into seven parcels and the development of an approximately 100,000 square foot “Shopping Village” with retail buildings, a grocery store, an office building and parking. This project was approved by the County of Monterey Board of Supervisors in February 2012. The project was legally challenged and the Courts recently ruled in favor of the County of Monterey, and the project is moving forward.
- **Monterey Peninsula Fixed Guideway Project** – The Monterey Peninsula Fixed Guideway Service would provide light rail transit service using the existing Monterey Branch Line alignment, which was purchased by TAMC in 2003 for \$9.3 million. The 16-mile corridor extends between Monterey and Castroville on the publicly owned tracks adjacent to Highway 1. The first phase of the project would run between Monterey and north Marina with key stations in Monterey, Seaside, Sand City, Marina/CSUMB, and connecting bus service to Pacific Grove and Carmel to the south and Salinas to the east. Later phases would extend service to the planned commuter rail station in Castroville and increase the frequency of trains. TAMC conducted environmental studies in 2011; however, the project was put on hold due to lack of funding. TAMC and MST are discussing the use of the alignment for a potential bus rapid transit project.
- **The Collections at Monterey Bay Project** – A 26-acre coastal project consisting of a 139-room hotel, 203 room resort, and 758 parking spaces is proposed west of Highway 1 in Sand City. A Draft EIR was released in November 2012 and Final EIR in 2013. Sand City approved the project in December 2013; however, the project was appealed to the California Coastal Commission and remains in the coastal permitting process.
- **Monterey Bay Shores Eco-Resort** – A 39-acre oceanfront project is proposed for development adjacent to the Plan Area. The proposed project, Monterey Shores Resort, would be located on Assessor’s Parcel Number 011-501-014 in Sand City and include construction of a 341-unit mixed-use “eco-resort.” The resort would include a 161-room hotel, 88 visitor-serving condominium units, and 92 residential condominium units. The *Addendum to the Final Environmental Impact Report* (City of Sand City, 2008) identifies potential effects to HCP species. The project received approved by Sand City and has obtained a Coastal Development Permit from the California Coastal Commission.
- **Pacific Gas and Electric Company Facility Operation and Maintenance** – PG&E maintains and operates gas and electric facilities throughout the Plan Area and surrounding vicinity. The majority of these facilities are in developed areas in the Plan Area; however, some are within designated HMAs. PG&E is currently developing its own HCP. The PG&E HCP would cover two categories of activities for which PG&E is requesting take authorization that are conducted in accordance with the California Public Utilities Commission requirements: operation and maintenance activities, and minor construction activities. Operation and maintenance activities for PG&E’s gas and electric facilities include a number of activities that would result in temporary ground disturbance and some that will result in the permanent removal of habitat. The HCP and associated environmental review are in progress.

4.2. AESTHETICS

4.2.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect aesthetic resources. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately. As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's FEIS previously evaluated the aesthetics issues associated with the disposal and subsequent reuse of the former Fort Ord at a program level. The analysis in this EIS/EIR is based on currently available information, including known information regarding the Proposed Action and alternatives, as well as applicable NEPA and CEQA Guidelines and guidance documents, the Reuse Plan, and applicable general plans.

An assessment of aesthetic resource impacts involves consideration of both the visual character and quality of the resource affected, and the value given to the source by viewers. Viewer valuation or response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Changes in foreground views from a position where large numbers of viewers are relatively stationary for long period of time would generate greater viewer exposure than changes in a background view seen by a limited number of viewers driving rapidly past the viewing site. Viewer sensitivity relates to viewer expectations and the extent of the public's concern for a particular viewshed. Viewers undertaking recreational activities in a location known for high quality aesthetic resources is expected to have higher expectations and express greater concern relative to preservation of scenic conditions than worked in an industrial setting in an urban area.

4.2.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a State Scenic Highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

4.2.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.2.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

Development or redevelopment of the former Fort Ord would be concentrated within approximately 4,241 acres of HMP-designated development areas that are primarily developed and void of vegetation, and approximately 1,263 acres of HMP-designated development areas that are primarily vegetated. Development activities within the existing developed areas may result in the removal of the limited amount of vegetation within a given project site, which could involve tree removal, vegetation clearing, and grading. These activities would alter the visual character of the existing landscape within a site; however, it is assumed that locations of new developments and infrastructure would be in close proximity to existing development and would not substantially alter the existing visual character or affect scenic vistas or other scenic resources. In addition, various local policies related to visual resources would minimize the potential for new development to result in drastic changes in visual character from existing or nearby development. Local policies, ordinances, and design guidelines would also minimize the generation of substantial light or glare in these areas. Viewer groups in the developed areas are expected to contain a higher proportion of employees, commuters, and residents who do not have views outside the developed area; groups that are less sensitive to changes in visual conditions.

Development activities within the 1,263 acres of vegetated development areas may result in the complete removal of natural and disturbed habitat types within a given project site, which could involve tree removal, vegetation clearing, and grading, directly impacting natural scenic resources. Development in these areas would be more likely to result in localized changes to the visual character of a site if new structures and facilities are placed in areas where few, or none, currently exist. Larger scale residential or commercial development that either significantly expand or create a new community where one did not previously exist could be viewed as a substantial degradation of the existing visual character or quality of the site as vegetated areas are converted to development. Whether such development would adversely affect a scenic vista or damage a scenic resource would depend on site-specific conditions.

Existing sources of light and glare in the former Fort Ord are primarily from developed areas and include exterior and interior building lighting, illuminated signs, streetlights, traffic signals, and windows. The Pacific Ocean can also cast nighttime glare by reflecting light from developed areas; however, ocean glare is usually perceived as a positive aesthetic quality. The intensity of light and glare is affected by the presence or absence of vegetation, which screens and filters light and softens glare. Development of the former Fort Ord would create new sources of light and glare, particularly from public facilities such as ballparks and fields that require high intensity night lighting (i.e., flood lights) that could diminish the quality of day or nighttime views in the area. Applicable policies, ordinances, and design guidelines would prevent substantial generation of light or glare.

The segment of Highway 1 located south of the former Fort Ord from Highway 68 to the Carmel River is a Caltrans Officially Designated Scenic Highway. The segment of Highway 68 located adjacent to the former Fort Ord from the City of Monterey to the Salinas River is a Caltrans Officially Designated Scenic Highway. Scenic resources within view of Highway 1 south of the former Fort Ord include Monterey Bay, coastal dunes, and shorelines. Scenic resources within view of Highway 68 adjacent to the former Fort Ord include low, rolling hills covered with annual grasslands and interspersed with areas of oak woodland and riparian vegetation. The future development activities proposed under the No Action Alternative along Highway 1 would not be viewable from the portion of the highway designated as scenic. The FONM lands are adjacent to Highway 68; no future development activities under the No Action Alternative are proposed in this area. Therefore, future development activities would be not viewable from Highway 68.

Under the No Action Alternative, habitat management activities may occur within the HMP habitat reserve areas and mitigation lands. However, under the No Action Alternative, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs. Therefore, only minimal ground disturbance would occur under the No Action Alternative and would result in temporary and/or minimal impacts to the visual character and quality of the landscape. Habitat management activities on FONM (e.g., restoration, prescribed burning, non-native species controls, road and trail maintenance, erosion control, and fuelbreak construction and maintenance) may be visible from Highway 68; however, any ground disturbance would be revegetated and would not result in long-term visual impacts. These activities would not substantially degrade the existing visual character or quality of the site or generate substantial light or glare. The restored and enhanced areas would result in beneficial impacts if viewable from Highway 68.

The impact analysis presented in the Reuse Plan EIR (pp. 4-189 through 4-193) determined the following:

- Potential visual impacts would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential visual impacts from future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

4.2.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, aesthetic impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact AES-1: Have a substantial adverse effect on a scenic vista.

Scenic vistas are areas where the public can experience exemplary, high-quality views, and can include both the natural and built features of a landscape. Scenic vistas within the former Fort Ord are abundant and include views of vegetation, ridgelines, watercourses, and the Pacific coast. The Greater Monterey Peninsula Area Plan designates portions of the former Fort Ord as visually sensitive because they are of high visual quality and are highly visible from surrounding areas and features of importance, including residences, roads, tourist areas, and the Monterey Bay. Development of the former Fort Ord would require construction of a substantial number of buildings, renovation of existing buildings, demolition of some buildings, and modification of infrastructure. These activities could produce short-term visual impacts due to construction and possible long-term visual impacts where the character and quality of scenic vistas is adversely altered.

Potential adverse direct and indirect impacts to scenic vistas would be the same as those under the No Action Alternative (75% less development in the No Action); however, the degree of impact under the Proposed Action Alternative would be greater as the extent of development and habitat management activities would be more. Development implemented under the Proposed Action Alternative would comply with visual and scenic resource policies set forth in the Reuse Plan and local planning documents, which would minimize impacts to the visual character and quality of the area. The impact analysis presented in the Reuse Plan EIR (pp. 4-189 through 4-193) determined the following:

- Potential visual impacts would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the Proposed Action Alternative would be the same as those identified in the Reuse Plan and EIR. The Reuse Plan EIR requires measures to minimize effects to visual resources, including: development of and adherence to urban design and landscape guidelines, designation of a scenic corridor along State Highway 1, and hotel building height restrictions.

The Proposed Action Alternative would also include the preservation of habitat on the former Fort Ord in accordance with the HMP, and would result in a beneficial cumulative effect on scenic conditions. Implementation of two or more habitat management activities in an area visible from one vantage point would involve restoring or maintaining natural lands and would result in a neutral or similar beneficial effect on scenic conditions.

Relevant HCP Measures (AMMs and MMs):

- **AMMs:** AMM-1, implement the site plan as identified in the HMP, Fort Ord Reuse Plan, and subsequent updates; AMM-18, limit artificial lighting at the urban/wildland interface; AMM-19, design and implement site design measures to avoid or minimize impacts of new development on hydrological conditions and reduce potential for increased erosion and sedimentation; AMM-20, site allowable development in HMAs to avoid or reduce impacts on HCP species and natural communities; AMM-21, limit road corridor and infrastructure projects in HMAs; AMM-23, limit construction of new roads in HMAs; AMM-26, implement construction best management practices; AMM-33, design and implement best management practices for maintenance of roads and facilities in HMAs; AMM-43, develop and implement a habitat restoration, enhancement, and management plan which includes AMMs and additional best management practices and is consistent with HMA-specific RMP; and AMM-49, control invasive species to prevent their spread.
- **MMs:** MM-2, establish a base-wide connected habitat reserve system in the Plan Area; MM-3, develop HMA-specific RMPs; MM-4, develop base-wide management strategies; MM-5, restore up to 100-150 acres of maritime chaparral within the HMAs; MM-15, restore oak woodland; MM-17, enhance or restore degraded sites in grasslands; MM-18, restore at least 5 acres of aquatic and riparian/wetland habitat over the term of the HCP; MM-19, restore East Garrison Pond; MM-20, close and rehabilitate unneeded roads and trails within HMAs; MM-30, identify site and implement appropriate erosion control and site restoration methods; and MM-31, restore degraded or destroyed sites associated with roads, gullies, or rills into maritime chaparral/coastal scrub habitat.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a State Scenic Highway.

Similar to the No Action Alternative, future development activities proposed under the No Action Alternative along Highway 1 would not be viewable from the portion of the highway designated as scenic. The FONM lands are adjacent to Highway 68; no future development activities under the No Action Alternative are proposed in this area. Therefore, future development activities would be not viewable from Highway 68.

Similar to the No Action Alternative, habitat management activities, such as habitat restoration or enhancement, could produce short-term visual impacts due to the potential of ground disturbance and removal of non-native vegetation. These activities may be visible from Highway 68; however, any ground disturbance would be revegetated and would not result in long-term visual impacts. The restored and enhanced areas would result in beneficial impacts if viewable from Highway 68.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AES-1.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.

Potential adverse direct and indirect impacts to the existing visual character and quality of the former Fort Ord would be the same as those under the No Action Alternative; however, the degree of impact under the Proposed Action Alternative would be greater due to the increase of development activities in non-urbanized areas. Therefore, development activities in non-urban areas will result in changes to the visual character or quality of public views. Development implemented under the Proposed Action Alternative would comply with visual and scenic resource policies set forth in the Reuse Plan and local planning documents, which would avoid and minimize impacts to the visual character and quality of the former Fort Ord. The Proposed Action Alternative would also comply with all applicable zoning and other regulations governing scenic quality in urbanized areas, including preserving open space in these areas to maintain high visual quality.

The implementation of habitat management activities under the Proposed Action Alternative in non-urbanized areas may result in temporary and/or minimal impacts to the visual character and quality of public views. However, any ground disturbance would be revegetated and would not result in long-term visual impacts. These activities would not substantially degrade the existing visual character or quality of public views. The restored and enhanced areas would result in beneficial impacts to the visual character of the landscape and quality of public views.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AES-1.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact AES-4: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Future development activities under the Proposed Action Alternative would create new sources of light and glare, similar to the No Action Alternative. However, the degree of impact under the Proposed Action Alternative would be greater due to the increase of development activities in urban and non-urbanized areas. Development implemented under the Proposed Action Alternative would comply with policies set forth in the Reuse Plan and local planning documents, which would avoid and minimize impacts from light and glare. Habitat management activities do not involve the installation of any lighting, and, thus, would not result in new sources of substantial light or glare that would adversely affect day or nighttime views.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AES-1.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.2.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore,

there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to visual resources. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The future development activities under the Reduced Take Alternative would be consistent with the Reuse Plan, and, thus, would be greater than the No Action Alternative. Future development activities within the designated development areas would be the same as the Proposed Action Alternative. Therefore, visual impacts associated with these activities would be the same as described in Impacts AES-1 through AES-4 under the Proposed Action Alternative. The development activities within HMAs under the Reduced Take Alternative would generally be the same as the No Action Alternative, since no development activities would occur in HMAs. Therefore, no direct or indirect impacts to visual resources would occur within the HMAs as a result of development activities.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce the visual impacts associated with these activities. Where habitat management activities occur, visual impacts would be similar to those described in Impacts AES-1 through AES-4.

Overall, under the Reduced Take Alternative, Impacts AES-1 through AES-4 would not be appreciably different from what is described for the No Action Alternative.

Therefore, for Impacts AES-1 through AES-4:

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AES-1.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.2.2.4. Cumulative Effects

Past conversions of natural habitat on the former Fort Ord as a result of military use has changed the visual character of portions of the base. Of the approximately 27,832-acre Plan Area, approximately 4,241 acres were developed. Prior to this development, the area supported the natural communities' characteristic of the former Fort Ord (e.g., coastal strand and dune, maritime chaparral, coastal scrub, coast live oak woodland and savanna, grasslands, riparian, and wetlands). The visual character of this area has been transformed from natural habitat to developed, and, therefore, there is an existing cumulative alteration to the visual character in the Plan Area that some could perceive as adverse.

Consistent with the Reuse Plan and related local planning documents, further land use conversions would occur as planned development proceeds under the No Action Alternative, although within a reduced development footprint and at a slower pace. In addition, future development under the No Action Alternative would be located in primarily developed areas, with the exception of the 1,263 acres that would occur in the vegetated development areas. However, development activities within these non-urbanized, vegetated development areas would continue the trend of converting natural habitat to a developed visual character. Effects on night sky views from cumulative increases in lighting or glare along the edge of existing development and within the vegetated development areas would also be expected to experience the greatest cumulative change in night sky views. It is anticipated that future development implemented under the No Action

Alternative would comply with visual and scenic resource policies set forth in the Reuse Plan and local planning documents, which would minimize impacts to the visual character and quality of the area. In addition, habitat management activities required under the HMP would result in temporary impacts to the visual character of the habitat reserve areas. Implementation of two or more habitat management activities in an area visible from one vantage point would involve restoring or maintaining natural lands and would result in a neutral or similar beneficial effect on scenic conditions.

The Proposed Action Alternative would result in more development activities in non-urbanized, vegetated areas than the No Action Alternative. It is anticipated that future development implemented under the Proposed Action Alternative would comply with visual and scenic resource policies set forth in the Reuse Plan and local planning documents, which would minimize impacts to the visual character and quality of the area. The habitat management activities required under the Draft HCP would be greater than the HMP and, thus, would result in greater temporary impacts to the visual character of the habitat reserve areas, but would also result in more restored and enhanced habitat. The Proposed Action Alternative would have a greater contribution to any potential adverse cumulative effects compared to the No Action Alternative, but with compliance with the Reuse Plan and local planning document, project-level CEQA review, and a more comprehensive habitat management program, the Proposed Action would not result in a cumulatively considerable contribution to a significant cumulative effect relative to the No Action Alternative.

The Reduced Take Alternative would not result in development activities within the HMAs, similar to the No Action Alternative, but would result in more development activities in the designated development areas compared to the No Action Alternative. This alternative would also implement the Draft HCP, but with a reduction of required management activities due to the reduced take levels. The Reduced Take Alternative would have a greater contribution to any potential adverse cumulative effects compared to the No Action Alternative, but with compliance with the Reuse Plan and local planning document, project-level CEQA review, and a more comprehensive habitat management program, the Reduced Take Alternative would not result in a cumulatively considerable contribution to a significant cumulative effect relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.3. AIR QUALITY

4.3.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect air quality. The evaluation of the potential effects to air quality that may result from each alternative is based on a review of the activities included in each alternative as described in Chapter 2, *Proposed Action and Alternatives*, review of the applicable planning documents for the land use jurisdictions within the Plan Area, and the assumption that activities under each alternative would comply with the applicable Federal, State, and local regulations and plan policies. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

The analysis contained herein is specific to those effects that may occur in connection with the Proposed Action and alternatives. Specifically, the following analysis evaluates the potential air quality effects associated with the issuance of ITPs in accordance with ESA and CESA and subsequent environmental effects associated with the implementation of HCP measures and associated management actions that have the potential to result in physical impacts on the environment. The following analysis is based on currently available information, including known information regarding the Draft HCP and associated habitat management activities. This section has been prepared in accordance with applicable NEPA and CEQA Guidelines and guidance documents, including the MBARD's 2008 CEQA Air Quality Guidelines, as well as applicable guidelines from the CARB. This section is also based on standard professional practice and a detailed review of existing literature sources. The following analysis consists primarily of a qualitative analysis of potential air quality effects; where sufficient information is available, a quantitative analysis is also provided.¹

4.3.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- conflict with or obstruct implementation of the MBARD's 2016 AQMP;
- violate any air quality standard, including MBARD's thresholds for construction impacts, or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard;
- expose sensitive receptors to substantial pollutant concentrations; or
- result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.3.1.2. Federal Conformity Analysis

Federal actions that are taken in designated nonattainment or maintenance areas must undergo a general conformity analysis in accordance with 40 CFR 93 to ensure that the project does not:

- cause or contribute to new violations or any standard in any area;
- increase the frequency or severity of an existing violation of any standard; or
- delay timely attainment of any standard requiring interim emission reduction, or other milestones.

The NCCAB is classified as an attainment area for all Federal ozone standards, as well as a non-attainment area for the State PM₁₀ and 1-hour ozone standards. For all other standards, the NCCAB is either unclassified or in attainment. Because the Proposed Action and alternatives are not located in a Federal nonattainment or maintenance area, the Federal action is not subject to Federal air quality conformity regulations.

¹ A quantitative analysis of air quality effects associated with MBARD's Smoke Management Program was previously conducted as part of the MBARD's 2002 Smoke Management Program EIR; that analysis, which is discussed in greater detail below, is herein incorporated by reference.

4.3.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.3.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

Consistency with MBARD's 2016 AQMP

Criteria pollutants and toxic air contaminants would be generated as a consequence of land use changes and temporary (e.g., construction) activities. CEQA Guidelines Section 15125(b) require that a project is evaluated for consistency with applicable regional plans, including the AQMP. The MBARD 2016 AQMP addresses attainment of the State ozone standard and Federal air quality standards. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by AMBAG and other indicators. The 2016 AQMP accommodates the growth projections and development assumptions contained in the Reuse Plan. MBARD's AQMP utilizes the population and development projections contained in AMBAG's Monterey Bay Area Regional Forecast, which incorporates anticipated growth in the former Fort Ord. As a result, the AQMP anticipates the growth in emissions associated with Fort Ord redevelopment. It is anticipated population growth over the next 50 years and associated housing and development needs would not change and would not exceed any limits to growth as specified in any planning documents. It is assumed that planned growth would occur within the adopted growth boundaries identified in the local planning documents. The No Action Alternative would not affect the development assumptions previously considered as part of the AQMP. Under this alternative, the extent of redevelopment activities would occur consistent with the Reuse Plan and the applicable general plans of the affected land use jurisdictions, but within a reduced development footprint (No Action assumes 25% of the development would occur relative to what is described in the Reuse Plan) and at a slower pace. As a result, covered activities associated with the redevelopment of the former Fort Ord are not anticipated to conflict with and/or otherwise obstruct the implementation of the AQMP. These activities were previously considered as part of air basin planning efforts.

In addition to projecting air quality emissions associated with population growth, the 2016 AQMP also forecasts an increase in area-wide emissions, particularly for VOCs due to an increase in the use of prescribed burns over the forecast period. The HMP states that controlled burning may be used as a habitat management activity within some habitat reserve areas. Since the burning of vegetation produces large amounts of both VOCs and NO_x, emission increases for both ozone precursors were identified in the 2016 AQMP. These increases were previously accommodated in the 2000 AQMP. The MBARD does not expect that emissions from prescribed burns would affect the area's attainment status (for more information please refer to MBARD 2016 AQMP; see page 4-4). The MBARD's Smoke Management Program, which is discussed in greater detail below, does not permit prescribed burning on days when ozone is expected to be high. Further, MBARD coordinates burning activities during the ozone season to keep ozone precursor emissions (i.e., Daily Emissions Allocation provision) within the estimates of the AQMP. In addition, due to the large-scale meteorological conditions that accompany high ozone days, most high ozone days are declared "No Burn Days."² As a result, habitat management activities implemented as part of the HMP are not anticipated to conflict with and/or otherwise obstruct the implementation of the 2016 AQMP since all burn-related activities would be required to comply with MBARD's existing Smoke Management Program.

² Consequently, high ozone days and days when prescribed burning is being conducted are generally not concurrent events.

Construction Emissions

The MBARD 2008 CEQA Air Quality Guidelines contain standards of significance for evaluating potential construction and operational direct and indirect air quality effects of projects subject to the requirements of CEQA (please refer to MBARD 2008 CEQA Air Quality Guidelines; see Table 5-1, pg. 5-3; see also Table 5-2, pg. 5-4; also 5-3, pg. 5-6). According to the MBARD, construction-related emissions that exceed 82 lb/day, or operational emissions that exceed the following thresholds, would be considered to potentially violate an air quality standard and/or contribute to an existing or project violation:

- Emit 137 pounds per day (lb/day) or more of VOCs or NO_x;
- Directly emit 550 lb/day of CO;
- Generate traffic that significantly affects levels of service;
- Directly emit 82 lb/day or more of PM₁₀;
- Generate traffic on unpaved roads producing emissions of 82 lb/day or more of PM₁₀; or
- Directly emit 150 lb/day or more of SO_x.

The MBARD has identified that projects involving ground disturbance below certain screening thresholds are assumed to be below the 82 lb/day or more of PM₁₀ significance threshold (please refer MBARD 2008, CEQA Air Quality Guidelines). **Table 4.3-1** identifies the applicable screening thresholds developed by MBARD according to type of construction activity for PM₁₀ emissions. Potential PM₁₀ emissions associated with the implementation of the HMP and any development activities would vary depending on the type of activity; factors influencing the extent of emissions include: 1) duration of activity; 2) extent of impact (i.e., acreage); 3) type of equipment (mechanical vs. hand); and 4) other factors such as proximity to sensitive receptors and project location. Emission rates (lb/day) also vary depending on the type of activity; average ground-disturbing activities (assuming use of construction-related equipment) typically emit 10 lb/acre-day, whereas under a worst-case scenario (extensive grading, trenching, excavating, etc.), PM₁₀ emissions could be as high as 38.2 lb/acre-day.³

Table 4.3-1. MBARD Construction Activity Screening Thresholds Pollutant: PM₁₀

Activity	Potential Threshold
Construction site with minimal earthwork	8.1 acres per day
Construction site with earthmoving (grading, excavation)	2.2 acres per day
Source: MBUAPCD 2008 CEQA Air Quality Guidelines	

Construction activities associated with future development under the No Action Alternative would result in an increase of criteria pollutants, toxic air contaminant emissions, and odors in the Plan Area. Activities such as the construction of new development and associated infrastructure to support these developments would generate ozone precursors (NO_x and ROG) and particulate matter (PM_{2.5} and PM₁₀, including diesel particulates). Construction-related emissions would vary greatly depending on the level of activity, specific operations taking place, type of equipment, local soils, and weather conditions. However, construction activities in the Plan Area would be subject to various air quality-related laws and regulations, including the provisions of the CAA, Tanner Air Toxics Act, Air Toxics Hot Spots, and other regulations as discussed in Chapter 3.3, Section 3.3.3, *Regulatory Framework*. Further, projects would be subject to the numeric thresholds established by the MBARD. Projects large enough to exceed construction thresholds would typically undergo CEQA review, which would include the evaluation of emissions of air pollutants. Projects found to exceed the thresholds for construction emissions would be required to implement feasible mitigation. The MBARD CEQA Air Quality CEQA Guidelines recommend mitigation measures to be applied during construction activities, including methods to control

³ Emission factors obtained from U.S. EPA. September 30, 1999. Estimating Particulate Matter Emissions from Construction Operations (Midwest Research Institute, 1999). Available at website url:

<http://nepis.epa.gov/Exe/ZyNET.exe/9100KK1W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1995+Thru+1999&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C95thru99%5CTxt%5C0000027%5C9100KK1W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>. The construction activity screening thresholds depicted in Table 4.3-1 are also derived from these emission factors.

fugitive dust and limit emissions of pollutants from equipment. It is expected that emission from construction of most projects would be mitigated through implementation of control measures, but it is likely that larger projects would not be able to reduce construction emissions to below the significance thresholds.

The impact analysis presented in the Reuse Plan EIR (pp. 4-127 through 4-128) determined the following:

- Potential violations of ambient air quality standards would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to air quality from construction activities associated with future development activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, implementation of the habitat management activities in the HMP, as well as any associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas, would be required. Mitigation measures are likely to include on-site areas of preservation within a specific project site, and smaller, non-contiguous areas of preservation within and outside the Plan Area. Generally, these required mitigation actions under the No Action Alternative would either retain lands in their existing condition (i.e., preservation) or convert lands to a more natural state (i.e., habitat restoration or enhancement). Habitat management activities associated with the HMP and any mitigation lands would vary. Preservation lands may require minimal work to maintain habitat values, while restoration and enhancement activities may require construction activities such as earth movement and grading. The use of heavy equipment for grading and earth moving could result in exhaust (e.g., NO_x, PM, and CO) and fugitive dust (i.e., PM₁₀ and PM_{2.5}). Implementation of the HMP-required habitat management activities within the habitat reserve areas includes restoration, preservation, prescribed burning, non-native species controls, road and trail maintenance, access control, erosion control, monitoring, research, fuelbreak construction, installation of signage, and regular patrols to enforce and monitor public access and use. However, many of these activities could result in take of Federal and/or State listed species. Therefore, under the No Action Alternative, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs.

The specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the habitat areas or any mitigation lands are unknown at this time. However, these activities would occur over a 50-year timeframe, be limited in extent, and would not occur all at once or in close proximity to one another. As a result, temporary air quality emissions would occur intermittently over the course of that period. These activities are also not anticipated to result in the continued and on-going use of heavy-duty, construction-related equipment. Limited mechanical equipment would be used to the extent necessary, depending on restoration and site-specific factors, but ground-disturbing activities are not projected to exceed the MBARD screening threshold of 8.1 acres per day for construction activities involving minimal earthwork. Potential air quality effects associated with ground-disturbing activities would be addressed through the implementation of MBARD measures and standard construction BMPs, as well as minimizing the extent of daily ground-disturbing activities. Further, if any large-scale grading or earth work were proposed, grading permits would be required from local regulatory agencies that would require dust control measures, if applicable. Therefore, the extent of direct impacts associated with the habitat management activities within the habitat areas or any mitigation lands is not anticipated exceed MBARD thresholds.

Operational Emissions

Operations associated with future development activities would directly and indirectly result in emissions of criteria air pollutants, toxic air contaminants, and odors. Emissions of criteria air pollutants would be associated with mobile, area-wide, and stationary sources. Toxic air contaminants and odor emissions would be associated with operational-related mobile and stationary sources (e.g., diesel exhaust on roadways, emissions from various land use development such as dry cleaners and gas stations, and other commercial or industrial development). As described for construction emissions, development activities under the No Action Alternative would result in some level of operational-related emissions. Operational emissions from development activities within the Plan Area would vary, depending on the mobile, stationary, and area-wide emissions generated by different land uses. Additionally, indirect impacts may occur due to emissions

generated after development is completed; however, its extent would vary greatly depending on the level of activity, specific operations taking place, type of equipment, local soils, and weather conditions.

The impact analysis presented in the Reuse Plan EIR (pp. 4-127 through 4-128) determined the following:

- Potential violations of ambient air quality standards would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to air quality from the operation of future development activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Criteria pollutant emissions would also result from increased vehicle and equipment exhaust emissions associated with the maintenance and monitoring activities (i.e., operations) of habitat and mitigation lands. Management of the habitat areas and mitigation lands would require vehicle travel, potentially resulting in significant use of unpaved roads. However, the level of vehicle use and associated emissions are not expected to exceed MBARD thresholds.

The primary air quality effects associated with implementation (i.e., operation) of the HMP would occur in connection with implementation of prescribed burns. The HMP states that controlled burning may be used as a habitat management activity within some habitat reserve areas; however, it does not provide specific requirements, except for the use of controlled burns within the FONM. The HMP states that BLM will determine the specific seasonal timing, patch size, yearly total, and rotational time for maritime chaparral burns. BLM intends to burn approximately 1,000 to 1,500 acres per decade in the FONM HMA (approximately 6,000 acres total). It is anticipated that BLM would implement prescribed burns within the FONM consistent with this program and with BLM's requirements in the RMP, step-down plans, the ACEC designation, national monument designation, the HMP and HMP MOU, and the LOT. The ROD for the RMP states that BLM will coordinate with the MBARD to predict impacts on air quality from prescribed burns and develop criteria for prescribed burns with MBARD to avoid air quality degradation beyond established air quality standards. Prescribed burns may also be used in other habitat reserves under the HMP; however, specific burn programs in other habitat reserve areas have not been completed and details are unknown. In addition, prescribed burns are assumed unlikely to occur within the other habitat reserve areas due to their proximity to existing and/or future development.

Prescribed burns and associated smoke would result in emissions of various different chemical compounds, including particulates (i.e., PM₁₀ and PM_{2.5}), NO_x, CO, and organic compounds. While the components and quantity of emissions depends on the types of fuel burned, moisture content, and temperature of combustion, the primary emissions associated with prescribed burns is particulate matter, mainly PM₁₀.⁴ **Table 4.3-2** identifies projected fuel consumption and emission factors according to vegetation type. This information was obtained from the MBARD 2002 Proposed Smoke Management Program EIR; this information is intended to illustrate the varying fuel composition mixture and potential emissions according to vegetation type.

Table 4.3-2. NCCAB Fuel Consumption & Emission Factors by Vegetation Type

Vegetation Type	Fuel Consumption & Emission Factors			
	Fuel Load Tons/Acre	VOC Lbs/Ton	NO _x Lbs/Ton	PM ₁₀ Lbs/Ton
High Chaparral	14.4	19.6	8	25.5
Grasslands	0.9	15	6	26.4
Moderate Chaparral	9.8	19.6	8	25.5
Grasslands- Oaks	5.2	15	6	17.2

Source: MBARD, 2002 Smoke Management Program EIR

Conducting a detailed project-level assessment of potential temporary air quality effects associated with future prescribed burns would be speculative in the absence of site-specific information. According to MBARD, determining whether an individual burn would exceed applicable quantifiable thresholds depends on a variety of factors including site-specific

⁴ MBUAPCD, Proposed Smoke Management Program, Final EIR (SCH #2001121144), May 2002; see also MBUAPCD, Smoke Management Program CARB Submittal, December 9, 2002.

setting of each burn, amount and type of fuel consumed, fuel moisture, burn duration, terrain setting, actual plume behavior and the meteorological conditions under which the prescription allows the burn to be conducted (MBUAPCD, 2002c). A detailed quantitative assessment of potential site-specific impacts cannot be performed in the absence of that information. As a result, the following analysis provides a general assessment of potential temporary air quality effects based on the BLM burn program for FONM. Anticipated future emissions are estimated based on the methodology used by MBARD as part of the 2002 Smoke Management Program EIR.

Table 4.3-3 identifies the total amount of acres anticipated to be burned within the FONM over the duration of HMP implementation. In addition, **Table 4.3-3** also identifies the corresponding emissions associated with the future burns based on fuel content loading factors utilized by the MBARD. This analysis conservatively estimates total emissions by assuming a high fuel loading factor for maritime chaparral. Actual fuel consumption would depend on site-specific vegetation type, density, moisture, and other factors. Depending on the type of vegetation burned, prescribed burns in the FONM could account for a maximum of 550,800 lbs of PM₁₀, 172,800 lbs of NO_x, and 423,360 lbs of VOCs over the course of a decade. Total emissions associated with FONM prescribed burns would be 2,203,200 lbs of PM₁₀, 691,200 lbs of NO_x, and 1,693,440 lbs of VOCs over the life of the project. The estimates contained in **Table 4.3-3** are for illustrative purposes only and are intended to demonstrate the anticipated maximum probable emissions associated with the proposed prescribed burns in FONM; actual emissions will vary depending on site-specific factors.

Based on the projections contained in MBARD 2002 Smoke Management Program EIR, prescribed burns in connection with the implementation of the Draft HCP would account for less than approximately 0.4% of the annual estimated emissions inventory for PM₁₀, NO_x, and VOCs at full implementation of MBARD's burn plans (estimate was developed for 2010). While FONM burns will be completed over the course of multiple decades (maximum 6,000 acres at a rate of 1,500 acres per decade), projected emissions were distributed over the course of 10 years to provide an estimate of average annual emissions. The MBARD included increases in emissions in connection with prescribed burns as part of the 2016 AQMP; these emissions were also previously considered as part of the 2000 AQMP. In addition, MBARD also contained a detailed assessment of potential air quality effects associated with the implementation of MBARD's Smoke Management Program. Future burns will be required to comply with all applicable requirements of MBARD. These activities are not anticipated to result in any new or significantly worse air quality effect than those evaluated in connection with MBARD's Smoke Management Program (please refer below for more information).

Prescribed burns would result in temporary air quality effects, which would be distributed over the course of multiple decades. Temporary air quality effects would include increased emissions of PM₁₀, NO_x, and VOCs as shown in **Table 4.3-3**. The extent of the effects of individual burns are contingent upon site-specific factors as described above. The temporary effects of individual burns would be potentially significant if they would exceed applicable ambient air quality standards. The appropriate threshold is the 24-hour CAAQS for PM₁₀ of 50 µg/m³. The 24-hour CAAQS is the human health-protective regulatory screening level; temporary emissions in excess of this standard would constitute a potential health hazard, particularly to smoke-sensitive areas.

The CARB has identified that the air quality effects associated with prescribed burns are manageable through the implementation of Smoke Management Plans and district-wide Smoke Management Programs. The MBARD implements a Smoke Management Program, as required pursuant to Title 17 of the California Code of Regulations (see Division 3, Chapter 1, Subchapter 2, for more information) to address temporary increases in PM₁₀ and other air quality emissions. The MBARD's Smoke Management Program anticipated increased air quality emissions in connection with prescribed burns and contains a number of management requirements to minimize the extent of potential adverse environmental effects. The MBARD Proposed Smoke Management Program EIR evaluated the potential environmental consequences associated with MBARD's Smoke Management Program and identified corresponding mitigation measures to ensure that all potential air quality effects would be minimized to a less-than-significant level.

Table 4.3-3. Estimated Total Prescribed Burn Emissions within FONM HMA under No Action Alternative

		Total
Fuel Consumption	Total Acres	6,000
	Fuel Load Tons/Acre	14.4
	Tons Burned	86,400
Emission Factors	VOCs lbs/Ton	19.6
	NO_x lbs/Ton	8
	PM₁₀ lbs/Ton	25.5
Projected Emissions Over 10 Years*	VOCs (tons)	847
	NO_x (tons)	346
	PM₁₀ (tons)	1102
Average Annual Emissions*	VOCs (tons)	85
	NO_x (tons)	35
	PM₁₀ (tons)	110
Source: MBARD, 2002 Proposed Smoke Management Program EIR		
* Actual emissions would vary depending on various factors, including the type and moisture content of the burned material.		

The MBARD's Smoke Management Program, which was subject to environmental review under CEQA, requires that all prescribed burns be subject to a MBARD permit process.⁵ As part of that process, burn proponents are required to submit detailed information concerning proposed burns (e.g., public notification procedures, contingency plans, appropriate meteorological conditions for ignition, etc.) to MBARD for review. For larger burns (e.g. greater than 100 acres), the MBARD requires more detailed information, including monitoring programs, as well as an evaluation of potential alternatives to conducting a prescribed burn. In addition to the specific permit application requirements, MBARD also implements additional measures and regulations pertaining to smoke management and prescribed burns. These measures include restricting burns on certain days depending on meteorological conditions, limiting the amount of burns on a given day in a specific geographic area, and limiting emissions from prescribed burns (i.e., limiting how much burning may be conducted on a particular day) in order to ensure consistency with the adopted 2016 AQMP. In addition, MBARD coordinates all burns in order to ensure that multiple burns are not occurring within the same area; Army-sponsored burns being completed as part of the CERCLA process would be required to be coordinated with any future burns conducted as part of the HMP. Future prescribed burns conducted in connection with the implementation of the HMP would be required to comply with all applicable requirements of MBARD's Smoke Management Program. Compliance with MBARD's requirements would reduce temporary increases in air quality emissions to below acceptable levels.

⁵ The potential air quality effects associated with MBARD's Smoke Management Plan were previously evaluated under the requirements of CEQA. The MBARD's programmatic-level EIR is herein incorporated by reference in accordance with CEQA Guidelines Section 15150 and CEQ NEPA Guidelines Section 1502.21. A copy of this EIR is available for public review at the FORA's offices located at 920 2nd Avenue, Suite A, Marina, CA 93933.

4.3.2.2. Alternative 2: Proposed Action – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, air quality impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact AQ-1: Conflict with or obstruct implementation of MBARD’s 2016 AQMP.

The Proposed Action would not affect the development assumptions previously considered as part of the AQMP. As a result, covered activities associated with the redevelopment of the former Fort Ord are not anticipated to conflict with and/or otherwise obstruct the implementation of the AQMP. These activities were previously considered as part of air basin planning efforts.

In addition to projecting air quality emissions associated with population growth, the 2016 AQMP also forecasts an increase in area-wide emissions, particularly for VOCs due to an increase in the use of prescribed burns over the forecast period. The MBARD does not expect that emissions from prescribed burns would affect the area’s attainment status (for more information please refer to MBARD 2016 AQMP; see page 4-4). As a result, prescribed burns implemented as part of the Draft Fort Ord HCP are not anticipated to conflict with and/or otherwise obstruct the implementation of the 2016 AQMP since all burn-related activities would be required to comply with MBARD’s existing Smoke Management Program.

For the purposes of this analysis, the Proposed Action is considered to be in substantial conformance with the 2016 AQMP. The Proposed Action would not: 1) result in changes to the development intensity or assumptions contained in the Fort Ord Reuse Plan; 2) cause an increase in emissions of ozone precursors beyond levels forecasted in the 2016 AQMP; and 3) conflict with applicable MBARD policies (e.g., Daily Emissions Allocation provision) intended to ensure consistency with the 2016 AQMP. Future prescribed burns would be required to comply with MBARD’s Smoke Management Program. All future burning activities would need to be coordinated with MBARD to keep ozone precursor emissions within the estimates contained in the 2016 AQMP. The Proposed Action would not conflict with and/or otherwise obstruct implementation of the 2016 AQMP.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact AQ-2: Violate an air quality standard or contribute to an air quality violation.

Implementation of the Proposed Action could result in air quality emissions that would violate an air quality standard or contribute to an existing violation based on MBARD’s 2008 CEQA Air Quality Guidelines thresholds identified above.

Construction Emissions

Compared to the No Action Alternative, the implementation of the Proposed Action Alternative would result in similar future development activities within a larger development footprint (an increase of approximately 4,671 acres) at a faster pace and implementation of the Draft HCP, which would result in additional restoration and enhancement activities. Therefore, the sources and types of emissions would be similar, but the effects would be greater than the No Action Alternative.

The impact analysis presented in the Reuse Plan EIR (pp. 4-127 through 4-128) determined the following:

- Potential violations of ambient air quality standards would be less than significant with the implementation of the identified policies and programs.

The future development activities under the Proposed Action would be the same as those identified in the Reuse Plan and EIR. As a result, potential impacts to air quality from construction activities associated with future development activities under the Proposed Action would be the same as those analyzed in the Reuse Plan EIR.

The implementation of the habitat management activities described in the Draft HCP would disturb approximately 795 - 900 acres as part of habitat management activities (i.e., revegetation, restoration, and enhancement) and an additional 555 acres as part of routine maintenance activities (i.e., road, trail, and firebreak maintenance). These actions are anticipated to disturb a total of approximately 1,400 acres over the course of 50 years. Ground-disturbing activities would result in temporary air quality effects due to the operation of heavy-duty equipment (if necessary, not all activities would require the use of machinery) and site disturbance. Ground-disturbing activities would result in temporary increases in PM₁₀ emissions. These activities would involve periodic ground-disturbing and habitat management-related activities that could potentially, albeit temporarily, result in air quality emissions exceeding applicable MBARD thresholds of significance. Ground-disturbing activities could exceed the MBARD threshold of 82 lb/day or more of PM₁₀ depending on the type and extent of ground disturbing activities. This analysis primarily consists of a qualitative assessment of temporary air quality emissions associated with these activities; preliminary air quality estimates are provided for the purposes of conservatively estimating anticipated maximum air quality effects in connection with these actions. While preliminary air quality estimates are provided, it is important to recognize that these effects would be distributed over the course of 50 years. The exact nature and extent of effects would depend on site-specific features, extent of disturbance, type of equipment used, etc. These estimates are provided primarily for illustrative purposes.

Table 4.3-1 above identifies the applicable screening thresholds developed by MBARD according to type of construction activity for PM₁₀ emissions. Potential PM₁₀ emissions associated with the implementation of the Proposed Action would vary depending on the type of activity; factors influencing the extent of emissions include: 1) duration of activity; 2) extent of impact (i.e., acreage); 3) type of equipment (mechanical vs. hand); and 4) other factors such as proximity to sensitive receptors and project location. Emission rates (lb/day) also vary depending on the type of activity; average ground-disturbing activities (assuming use of construction-related equipment) typically emit 10 lb/acre-day whereas under a worst-case scenario (extensive grading, trenching, excavating, etc.), PM₁₀ emissions could be as high as 38.2 lb/acre-day.⁶

Major earth disturbing activities are not anticipated in connection with the implementation of habitat management activities. Implementation of the Draft HCP is not anticipated to result in the continued and on-going use of heavy-duty, construction-related equipment in connection with habitat management activities. Limited mechanical equipment would be used to the extent necessary, depending on restoration and site-specific factors, but ground-disturbing activities are not projected to exceed the MBARD screening threshold of 8.1 acres per day for construction activities involving minimal earthwork. Potential air quality effects associated with ground-disturbing activities would likely be addressed through the implementation of standard construction BMPs, as well as minimizing the extent of daily ground-disturbing activities. In addition, the Draft HCP includes AMMs that would further ensure that potential air quality impacts are minimized. However, under the Proposed Action, there is the potential that major ground-disturbing activities could be required and the implementation of standard BMPs and AMMs would not reduce impacts to a less-than-significant level, exceeding the applicable MBARD thresholds of significance. Therefore, mitigation has been identified below to reduce potentially significant air quality impacts that may result from habitat management activities to a less-than-significant level.

In addition to temporary PM₁₀ emissions, habitat management activities may also result in temporary increases in diesel particulate matter and NO_x in connection with the operation of heavy-duty construction equipment. As described above, the use of heavy-duty construction equipment is considered unlikely in light of the scope and nature of proposed habitat management activities. In addition, the majority of proposed management activities are located in HMAs that are not

⁶ Emission factors obtained from U.S. EPA. September 30, 1999. Estimating Particulate Matter Emissions from Construction Operations (Midwest Research Institute, 1999).

within close proximity to sensitive receptors or uses; the majority of management activities are proposed in the FODSP and FONM HMAs. However, under the Proposed Action, there is the potential that ground-disturbing activities could require heavy-duty construction equipment and exceed the applicable MBARD thresholds of significance. Therefore, mitigation has been identified below to reduce potentially significant temporary construction-related direct and indirect air quality effects associated with diesel particulate matter and NO_x that may result from habitat management activities to a less-than-significant level. The MBARD has identified that these measures are adequate for the purposes of ensuring potential project-induced air quality effects are below applicable thresholds (please refer to MBARD 2008 *CEQA Air Quality Guidelines*).

Operational Emissions

Operations associated with covered development activities under the Proposed Action would result in emissions of criteria air pollutants, toxic air contaminants, and odors. Emissions of criteria air pollutants would be associated with mobile, area-wide, and stationary sources. Toxic air contaminants and odor emissions would be associated with operational-related mobile and stationary sources (e.g., diesel exhaust on roadways, emissions from various land use development such as dry cleaners and gas stations, and other commercial or industrial development). As described for construction emissions, development activities under the No Action Alternative would result in some level of operational-related emissions. Operational emissions from development activities within the Plan Area would vary, depending on the mobile, stationary, and area-wide emissions generated by different land uses.

The impact analysis presented in the Reuse Plan EIR (pp. 4-127 through 4-128) determined the following:

- Potential violations of ambient air quality standards would be less than significant with the implementation of the identified policies and programs.

The future development activities under the Proposed Action would be the same as those identified in the Reuse Plan and EIR. As a result, potential impacts to air quality from operational activities associated with future development activities under the Proposed Action would be the same as those analyzed in the Reuse Plan EIR.

Criteria pollutant emissions would also result from increased vehicle and equipment exhaust emissions associated with the maintenance and monitoring activities (i.e., operations) of habitat and mitigation lands. Management of the habitat areas and mitigation lands would require vehicle travel, potentially resulting in significant use of unpaved roads. However, the level of vehicle use and associated emissions are not expected to exceed MBARD thresholds.

Prescribed burning activities and/or alternative vegetative management are anticipated to occur on FONM, FONR, East Garrison Reserve, Parker Flats Reserve, Landfill Parcel, and Range 45 Reserve. Prescribed burning and alternative vegetative management provide key management strategies to maintain healthy maritime chaparral as a patchwork of stands that support vegetation of various ages and structures and to maintain the viability of populations of HCP species occurring within this habitat in the HMAs. To date, only the BLM FONM has committed to conducting prescribed burns; however, the Draft HCP states that prescribed burning would be considered as a management tool for each of the HMAs mentioned above.⁷ However, because only BLM FONM has committed to conducted prescribed burns and MMs require only FONM and East Garrison South (if feasible prior to development of adjacent parcels) to conduct prescribed burns, this analysis assumes FONM and East Garrison South would conduct prescribed burns as part of HCP implementation. Due to the proximity of existing development, it would be particularly difficult to implement prescribed burns in the remaining HMAs, and, therefore, for the purposes of this analysis, it is assumed that alternative vegetative management would occur in those HMAs.

Alternative vegetative management is anticipated to occur on FONR, East Garrison Reserve, Parker Flats Reserve, Landfill Parcel, and Range 45 Reserve. Treatments such as cutting, mowing, goat grazing, and other measures would be used to gain a better understanding of the effects of alternative vegetation management strategies for use in areas considered too hazardous for a prescribed burn. Alternatives to burning would commence in year 30 on FONR and

⁷ While not a Permittee, BLM would be conducting its burn program as described in the No Action Alternative and the Draft HCP. Therefore, potential impacts associated with prescribed burns on the FONM are evaluated herein.

between years 20 and 30 on the other HMAs. Alternative treatments would occur on up to 500 acres of maritime chaparral every 10 years. Alternative vegetative management treatments could result in similar types and sources of emissions as restoration, enhancement, and other ground-disturbing activities. However, the treatments are not anticipated to result in the continued and on-going use of heavy-duty, construction-related equipment and would occur over a 50-year timeframe. Limited mechanical equipment would be used to the extent necessary, depending on restoration and site-specific factors, but ground-disturbing activities are not projected to exceed the MBARD screening threshold of 8.1 acres per day for construction activities involving minimal earthwork. Potential air quality effects associated with ground-disturbing activities would be addressed through the implementation of MBARD measures and standard construction BMPs, as well as minimizing the extent of daily ground-disturbing activities. Therefore, the extent of impacts associated with the implementation of alternative vegetative treatments is not anticipated exceed MBARD thresholds.

Potential direct adverse air quality effects associated with the proposed habitat management activities are primarily associated with the use of prescribed burns. Prescribed burning would occur on a rotational basis. No more than one prescribed burn would be conducted in any one area during the permit term. The Draft HCP prescribes a decadal burn goal as opposed to an annual prescribed burn requirement. This would allow habitat managers to consider the impacts that unplanned wildfires cause in modifying the overall age-structure, and adjust management actions (i.e., prescribed fire and wildfire suppression) accordingly. The Draft HCP anticipates that a total of 6,203 acres would be burned over the course of 40 years; a maximum of 1,500 acres each decade in FONM and 203 acres within the East Garrison South Reserve.⁸ Prescribed burning would commence in year 20 of plan implementation on the FONM and prior to the second phase of the East Garrison Development in the East Garrison South Reserve. It is assumed that prescribed burning in the East Garrison South Reserve would occur between years 20 and 25 of Draft HCP implementation. The following analysis conservatively estimates anticipated future air quality emissions associated with the proposed burns based on the methodology contained in the MBARD's Smoke Management Program EIR (MBUAPCD, 2002c); these air quality estimates are intended to demonstrate anticipated maximum air quality emissions associated with the implementation of the Draft HCP.

As described in the prescribed burn analysis under the No Action Alternative, prescribed burns and associated smoke would result in emissions of various different chemical compounds, including particulates (i.e., PM₁₀ and PM_{2.5}), NO_x, CO, and organic compounds (please refer to **Table 4.3-2**). As described in the No Action Alternative, BLM has confirmed that they intend to conduct prescribed burns within the FONM HMA. BLM intends to burn approximately 1,000 to 1,500 acres per decade in the FONM HMA (approximately 6,000 acres total). In addition, 203 acres are anticipated to be burned on the East Garrison South Reserve. **Table 4.3-4** identifies the total amount of acres anticipated to be burned over the duration of HCP implementation. In addition, **Table 4.3-4** also identifies the corresponding emissions associated with the future burns based on fuel content loading factors utilized by the MBARD. This analysis conservatively estimates total emissions by assuming a high fuel loading factor for maritime chaparral. Actual fuel consumption would depend on site-specific vegetation type, density, moisture, and other factors.

Depending on the type of vegetation burned, prescribed burns in the FONM HMA could account for a maximum of 550,800 lbs of PM₁₀, 172,800 lbs of NO_x, and 423,360 lbs of VOCs over the course of a decade. Total emissions associated with FONM prescribed burns would be 2,203,200 lbs of PM₁₀, 691,200 lbs of NO_x, and 1,693,440 lbs of VOCs over the life of the project. Total emissions associated with the East Garrison South Reserve prescribed burn would account for approximately 74,688.48 lbs of PM₁₀, 23,431.68 lbs of NO_x, and 57,407.62 lbs of VOCs. The estimates contained in **Table 4.3-4** are for illustrative purposes only and are intended to demonstrate the anticipated maximum probable emissions associated with the proposed prescribed burns; actual emissions will vary depending on site-specific factors.

⁸ As stated, prescribed burns would not be initiated until year 20 of HCP implementation.

Table 4.3-4. Estimated Total Prescribed Burn Emissions by HMA under Proposed Action Alternative

		HMA			TOTAL
		BLM FONM	East Garrison South Reserve	Others (alt. veg. treatment)	
Fuel Consumption	Total Acres	6,000	203.4	2,000	8,203.4
	Fuel Load Tons/Acre	14.4	14.4	--	--
	Tons Burned	86,400	2,928.96	--	89,328.96
Emission Factors	VOCs lbs/Ton	19.6	19.6	--	--
	NO _x lbs/Ton	8	8	--	--
	PM ₁₀ lbs/Ton	25.5	25.5	--	--
Projected Emissions Over 10 Years*	VOCs (tons)	847	29	--	876
	NO _x (tons)	346	12	--	358
	PM ₁₀ (tons)	1102	37	--	1139
Average Annual Emissions*	VOCs (tons)	85	3	--	88
	NO _x (tons)	35	1	--	36
	PM ₁₀ (tons)	110	4	--	114
Source: MBARD, 2002 Proposed Smoke Management Program EIR					
* Actual emissions would vary depending on various factors, including the type and moisture content of the burned material.					

Based on the projections contained in MBARD 2002 Smoke Management Program EIR, prescribed burns in connection with the implementation of the Draft HCP would account for approximately 0.4% of the annual estimated emissions inventory for PM₁₀, NO_x, and VOCs at full implementation of MBARD's burn plans (estimate was developed for 2010).

Future prescribed burns conducted in connection with the implementation of the Draft HCP would be required to comply with all applicable requirements of MBARD's Smoke Management Program, as described in the No Action Alternative analysis. Compliance with MBARD's requirements would reduce temporary increases in air quality emissions to below acceptable levels. For instance, detailed, burn-specific, air quality modeling would be conducted on each individual burn. Moreover, the implementation of applicable Draft HCP Measures (e.g. MMs and AMMs) identified below would further ensure that potential impacts are minimized. Applicable Draft HCP Measures (see below) include conducting prescribed burns on a rotational basis and in advance of new development, using alternative management techniques in lieu of prescribed burns, and researching other vegetation management techniques. However, there is the potential that prescribed burns may exceed the applicable MBARD thresholds of significance. Therefore, mitigation has been identified below to reduce potentially significant temporary air quality effects from prescribed burns to a less-than-significant level. Specifically, future prescribed burns within the East Garrison South Reserve shall be limited to 105 acres in size. Minimizing the extent of burn area in this HMA will reduce potential air quality effects on surrounding uses. In addition, the development and subsequent implementation of burn-specific Smoke Management Plans for each individual prescribed burn would further ensure impacts are minimized. Implementation of the following mitigation measures, applicable Draft HCP Measures, as well as compliance with existing regulatory requirements (e.g., MBARD Smoke Management Program, applicable General Plan Policies, and future site-specific analyses) would reduce impacts to a less-than-significant level. Implementation of the following measures would not result in any new or expanded environmental effects beyond those evaluated in this EIS/EIR.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in violation in air quality standards or contribute to an air quality violation. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs:** AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; AMM-26, implement construction BMPs, including preparing and implementing an air quality analysis to determine the potential for proposed construction project to exceed the 82 lb/day inhalable particulate threshold established by the MBARD; and AMM-44, develop and implement fire and alternative vegetative management plan that describes best management practices and AMMs (conduct prescribed burns on rotational basis and limit construction of new roads and fuelbreaks).
- **MMs:** Applicable MMs include MM-3, MM-22, MM-23, MM-24, MM-25, MM-34, MM-35, and MM-36. These measures would minimize the extent of air quality emissions associated with the use of prescribed burns by requiring that: HMA-specific resource management plans include developing specific protocols fire and alternative vegetative management, erosion control, and road and trail maintenance (MM-3); prescribed burns are completed on a rotational basis (MM-22) and scheduled in advance of development (MM-23); alternative vegetation management activities are used in lieu of prescribed burns (MM-24); mechanical thinning and understory clearing in lieu of prescribed burning as determined necessary and appropriate as well as reduction of fuel loads in areas considered too hazardous to burn (MM-25); and alternative vegetation management activities are researched (MM-34), including initiating a pilot program to test methods to remove non-native grasses (MM-35) and evaluating range of actions to support sustainable and healthy natural communities (MM-36).

Mitigation:

Mitigation Measure AQ-1: In order to minimize the extent of temporary ground-disturbing, construction-related PM₁₀ emissions associated with habitat management activities, a Construction Dust Mitigation Plan shall be prepared prior to the initiation of ground-disturbing activities. This plan shall be prepared by the Cooperative and/or the Implementing Agency responsible for project implementation. This plan shall be submitted to MBARD for review prior to the start of a ground-disturbing activity. This plan shall detail the methods of dust control that would be utilized, demonstrate the availability of needed equipment and personnel, and identify a responsible individual who, if needed, can authorize implementation of additional measures. The plan shall, at a minimum, include the following measures:

- Limit grading activity to a maximum of 2.2 acres per day; all other minor earthwork shall be limited to 8.1 acres per day.
- All areas of ground disturbance shall be watered at least twice daily.
- Grading activities shall be prohibited during periods of high wind (over 15 mph).
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant sterile vegetative ground cover in disturbed areas as soon as possible; revegetation shall include only native and/or non-invasive species.
- Cover inactive storage piles. Install temporary entrances at the entrance to sites.
- Sweep streets if visible soil material is carried out from the site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the MBARD shall be visible to ensure compliance with Rule 402 (Nuisance).

- Limit traffic speeds on unpaved roads to 15 miles per hour (mph).
- Limit the disturbed area at any one time.

Mitigation Measure AQ-2: In order to minimize the extent of temporary construction-related diesel particulate matter and NO_x emissions associated with habitat management activities, the following measures shall be implemented for all future habitat management activities requiring the operation of heavy-duty, construction-related equipment.

- All off-road construction vehicles/equipment greater than 100 hp that will be used on site for more than one week shall: 1) be manufactured during or after 1996, and 2) shall meet the NO_x emissions standard of 6.9 grams per brake-hp hour. Alternatively, the project shall implement a combination of the following emission reduction measures on some or all of the above described vehicles equipment, subject to approval by the MBARD:
 - Use alternative fuels (such as biodiesel blends),
 - Require diesel particulate matter filters on equipment,
 - Require diesel oxidation catalyst on equipment.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors).
- Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged away from residential areas.
- Properly tune and maintain equipment for low emissions.
- Stage large diesel-powered equipment at least 200 feet from any active land uses (e.g., residences).
- Limit the pieces of equipment used at any one time.
- Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled loader, roller) by using gasoline-powered equipment.
- Limit the daily hours of operation for heavy-duty equipment.

Mitigation Measure AQ-3: In order to minimize the extent of air quality emissions associated with the use of prescribed burns, a Prescribed Burn Management Program (PBMP) shall be developed in connection with the implementation of the Draft HCP. This program shall be prepared by the Cooperative Agency and shall contain an established protocol for assessing the potential air quality effects of individual burns. The protocol shall establish standards for quantifying potential effects of prescribed burns based on fuel content, acreage of burn area, proximity to sensitive receptors, and other factors deemed appropriate by MBARD. It shall also include protocols for the notification, implementation, and monitoring of all future prescribed burns implemented in connection with the Draft HCP. The PBMP shall be prepared in coordination with MBARD and shall be consistent with MBARD's Smoke Management Program. The PBMP shall also require that detailed, site-specific Smoke Management Plans be prepared for individual prescribed burns. These plans shall specify the "smoke prescription," detailing the appropriate air quality, meteorological, and fuel conditions necessary to carry out the burn. This plan shall contain a detailed evaluation of the impact of the proposed burn on adjacent receptors. It shall also contain information detailing public notification procedures, contact information, and potential monitoring actions (if applicable). Additional information may be necessary depending on the size of the prescribed burn. The plan shall be submitted to MBARD for review and approval as part of MBARD's prescribed burn permit process.

Mitigation Measure AQ-4: Future prescribed burns conducted in the East Garrison South Reserve shall be limited to 105 acres or less in size and shall be conducted in advance of planned future development. The Cooperative and/or Implementing Agency shall limit the area of prescribed burn within the East Garrison South Reserve consistent with the intent of this measure. Prescribed burns shall be conducted in accordance with the requirements of Mitigation Measure AQ-3 and shall be coordinated with MBARD.

Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

Implementation of the covered activities under the Proposed Action Alternative could result in increased emissions of a criteria pollutant for which the region is in non-attainment. As described in Section 3.3, *Air Quality*, the NCCAB is currently in non-attainment for the State eight-hour AAQS for ozone. The NCCAB is, however, designated an attainment area for the Federal eight-hour ozone AAQS. The NCCAB is also designated a non-attainment area for the State PM₁₀ AAQS. The NCCAB is in attainment with the Federal PM₁₀ AAQS. **Table 3.3-2** summarizes the attainment status of the NCCAB. The NCCAB is in attainment for all other State and Federal AAQS.

The construction and operational activities associated with future development under the Proposed Action would result in increased emissions of criteria pollutants for which the region is currently in non-attainment. However, as discussed in Impact AQ-2, violations of ambient air quality standards resulting from construction and operational activities associated with future development would be less than significant. Therefore, future development under the Proposed Action would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

Proposed habitat management activities would result in increased emissions of criteria pollutants for which the region is currently in non-attainment. As described above, habitat management activities (i.e., temporary construction-related activities, prescribed burns, etc.) would result in temporary emissions of ozone and PM₁₀. These actions would result in temporary construction-related air quality effects that would result in an increase in PM₁₀ emissions, as well as ozone precursors. The extent of potential adverse air quality effects would be temporary in nature and the restoration and revegetation activities proposed in connection with the Draft HCP would result in long-term beneficial air quality effects. Compliance with existing regulatory requirements (e.g. MBARD Smoke Management Program) and standard construction BMPs would minimize temporary emissions associated with habitat management activities. However, as described above in Impact AQ-2, implementation of the identified AMMs, MMs, and mitigation measures would be required to reduce temporary emissions to a less-than-significant level. Please refer to the preceding discussion above for more information. Therefore, for the same reasons described above, the Proposed Action Alternative could result in a cumulatively considerable net increase of ozone and PM₁₀ for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in a cumulatively considerable net increase of ozone and PM₁₀ for which the project region is non-attainment under an applicable Federal or State ambient air quality standard. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AQ-2.

Mitigation:

- **Additional Mitigation:** Implementation of Mitigation Measures AQ-1 through AQ-4 as identified for Impact AQ-2.

Impact AQ-4: Expose sensitive receptor(s) to substantial pollutant concentrations.

Implementation of the covered activities under the Proposed Action Alternative could potentially expose sensitive receptors (e.g. residences, schools, hospitals, etc.) to a substantial increase in pollutant concentrations.

The construction and operational activities associated with future development under the Proposed Action would result in increased emissions of criteria pollutants. However, as discussed in Impact AQ-2, violations of ambient air quality standards resulting from construction and operational activities associated with future development would be less than significant. Therefore, future development under the Proposed Action would not result in exposing sensitive receptors to a substantial increase in pollutant concentrations.

As described above, the implementation of the Draft HCP would cause temporary direct and indirect air quality impacts due to the implementation of habitat management activities. These activities would include temporary ground-disturbing activities as part of habitat management activities. This could result in temporary increases in fugitive dust emissions (e.g., PM₁₀ and PM_{2.5}), as well as diesel exhaust emissions from construction equipment. In addition to temporary, construction-related emissions associated with ground-disturbing activities, implementation of the Draft HCP would also result in air quality effects in connection with prescribed burns. As discussed above, prescribed burns and associated smoke are known to result in emissions of various different chemical compounds, including particulates (i.e., PM₁₀ and PM_{2.5}), NO_x, CO, and organic compounds. While the components and quantity of emissions depends in part on the types of fuel burned, moisture content, and temperature of combustion, the primary emissions associated with prescribed burns is particulate matter, mainly PM₁₀. The extent of air quality effects depends on a variety of factors, including atmospheric stability, wind speed, and proximity of smoke-sensitive receptors, among other factors. Sensitive receptors located downwind of future burns could be exposed to substantial pollutant concentrations. Please refer to the preceding analysis above in Impact AQ-2 for more information.

The extent of potential adverse air quality effects would be temporary in nature and the restoration and revegetation activities proposed in connection with the Draft HCP would result in long-term beneficial air quality effects. While these effects would be temporary in nature, these habitat management activities could, nevertheless, cause an adverse air quality effect to sensitive receptors, particularly due to prescribed burns impacting downwind sensitive uses. Implementation of the mitigation measures identified above would be required to reduce temporary emissions of criteria air pollutants to a less-than-significant level. Please refer to the preceding discussion above in Impact AQ-2 for more information. Therefore, for the same reasons described above, habitat management activities, including ground-disturbing activities and prescribed burns, the Proposed Action Alternative could temporarily expose sensitive receptors (e.g. residences, schools, hospitals, etc.) to a substantial increase in pollutant concentrations.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action could temporarily expose sensitive receptors (e.g. residences, schools, hospitals, etc.) to a substantial increase in pollutant concentrations. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AQ-2.

Mitigation:

- **Additional Mitigation:** Implementation of Mitigation Measures AQ-1 through AQ-4 as identified for Impact AQ-2.

Impact AQ-5: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

For the purposes of this EIS/EIR, implementation of the Proposed Action would create a potentially significant impact if it would expose a substantial number of people to a new source of objectionable odor. Typical sources of objectionable odors include chemical plants, sewage treatment plants, large composting facilities, rendering plants, and other large industrial facilities that emit odorous compounds.

Future development and redevelopment activities under the Proposed Action include the rehabilitation and construction of roads, utilities, and other infrastructure to support new research/educational, residential, commercial, light industrial, recreational projects pursuant to the Reuse Plan, General Plans, and Long Range Development Plans of local government and jurisdictions. Future project which would emit pollutants associated with objectionable odors in substantial concentrations could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of people or would endanger the comfort, health, or safety of the public. As discussed in Impact AQ-2, violations of ambient air quality standards resulting from construction and operational activities associated with future development would be less than significant. Therefore, future development under the Proposed Action would not result in emissions adversely affecting a substantial number of people.

The implementation of habitat management activities may result in temporary increases in odors associated with prescribed burns. These effects would be temporary in nature and would not represent a permanent new source of an objectionable odor. The prescribed burns would also be located in rural areas, not adjacent to a substantial number of people. Therefore, this impact would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.3.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to air quality. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

If the elimination of development in the HMAs resulted in less overall vehicle trip generating development in the HMAs, effects from mobile and area source emissions from development-related activities could be slightly less under the Reduced Take Alternative. However, the elimination of development within these HMAs could result in the development planned for these locations being diverted to another part of the Plan Area. If any of the new locations were farther from development centers, this could result in more frequent and longer vehicle trips and an increase in mobile source emissions from development-related activities. However, since development activities under this alternative would be the same or less than identified in the Reuse Plan, potential impacts to air quality from construction and operational activities associated with future development activities would be less than significant.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce the emissions associated with these activities. However, even with a reduction in emissions, the Reduced Take Alternative would still require implementation of habitat management activities that could result in

potentially significant air quality impacts, and, thus, require the same mitigation as the Proposed Action to reduce impacts to a less-than-significant level.

Overall, under the Reduced Take Alternative, Impacts AQ-1 through AQ-5 would not be appreciably different from what is described for the Proposed Action Alternative.

Therefore, for Impacts AQ-1 and AQ-5 under the Reduced Take Alternative:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Therefore, for Impacts AQ-2, AQ-3, and AQ-4 under the Reduced Take Alternative:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative could temporarily result in violation of an air quality standard or contribute substantially to an existing or projected air quality violation; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard; and expose sensitive receptors (e.g. residences, schools, hospitals, etc.) to a substantial increase in pollutant concentrations. These represent potentially significant impacts that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact AQ-2.

Mitigation:

- **Additional Mitigation:** Implementation of Mitigation Measures AQ-1 through AQ-4 as identified for Impact AQ-2.

4.3.2.4. Cumulative Effects

Under the No Action Alternative, development in the project area over the past century has resulted in an increase in the amount of land converted to residential, commercial, and other uses. This past development has produced emissions of air pollutants in the Plan Area such that human-related sources of pollution have depleted air quality as compared to pre-development conditions. Development in the Plan Area has resulted in the addition of mobile (e.g., automobiles, heavy-duty trucks) and stationary sources (e.g., wastewater treatment plants, factories) of air pollutants. The NCCAB is in non-attainment for State PM₁₀ and 1-hour ozone standards, indicating that there is currently an adverse cumulative effect on air quality within the Plan Area. Given the stringent regulatory environment in the NCCAB, as well as various Federal, State, and local policies and programs that result in emission reductions (e.g., clean fuel standards, improved vehicle emission standards, greenhouse gas reduction measures), future development in the Plan Area consistent with the No Action Alternative would not necessarily contribute to a continuing reduction in air quality. The reasonably foreseeable future actions identified in Section 4.1.4.3 would result in air quality impacts, as the projects would involve increased construction activities and/or result in increased traffic, both of which could result in significant air quality impacts. These future actions would be subject to the same regulations, policies, and programs as the projects included as part of the No Action Alternative. Future actions would also be required to mitigate for potentially significant air quality impacts in accordance with the mitigation measures identified in project-specific CEQA review. In addition, over the 50-year study period, it is likely that solar and wind energy development could result in a net improvement in air quality. Advancements in technology and cleaner fuels will continue through the 50-year study period that would result in reduced emissions of criteria air pollutants. This could have a net-positive effect on air quality in the Plan Area.

Under the Proposed Action, the existing cumulative conditions would consist of more future development activities and implementation of the Draft HCP as compared to the No Action Alternative. Under the Reduced Take Alternative, the existing cumulative conditions would consist of the same or less future development activities and implementation of the Draft HCP as compared to the No Action Alternative. Potential impacts to air quality resulting from the construction and operation of future development activities would be less than significant under the Proposed Action and Reduced Action Alternatives, and, similar to the No Action Alternative, cumulative effects of the Proposed Action and Reduced Take Alternatives would not result in significant impacts to air quality.

However, the implementation of the habitat management activities under the Proposed Action and Reduced Take Alternatives have the potential to significantly affect air quality temporarily from ground-disturbing activities and/or prescribed burns as compared to the No Action Alternative. Under these two alternatives, the implementation of Mitigation Measures AQ-1, AQ-2, AQ-3, and AQ-4 are required to reduce potential impacts to a less-than-significant level. These two alternatives would result in greater impacts to air quality than the No Action Alternative, but with implementation of the identified mitigation measures, their contribution to any cumulative air quality effects would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

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4.4. BIOLOGICAL RESOURCES

4.4.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect biological resources.

The Draft Fort Ord HCP is intended to provide the Permittees with take coverage for the HCP species that are covered under the plan. The level of incidental take of each of the Draft HCP species has been quantified for *all* covered activities (i.e., Category 1 – development activities and Category 2 – habitat management activities) in order to meet permit issuance criteria. However, impacts to non-HCP special-status species, sensitive habitats, and other sensitive biological resources that may occur as a result of Categories 1 and 2 have been primarily addressed qualitatively; impacts have been quantified where data is available and that level of analysis is appropriate.

The effects of reuse of the Plan Area on HCP species and natural communities have been addressed in various environmental documents including:

- Volume 4 of the Reuse Plan;
- 1997 HMP, as amended by the 2002 Assessment of East Garrison-Parker Flats Land Use Modifications;
- Army’s FEIS and FSEIS;
- *Biological and Conference Opinion on the Closure and Reuse of Fort Ord, Monterey County, California*, dated March 30, 1999 (1-8-99-F/C-39R);
- *Biological Opinion on the Closure and Reuse of Fort Ord as it affects Monterey spineflower (Chorizanthe pungens var. pungens) Critical Habitat*, dated October 22, 2002 (1-8-01-F-70R);
- *Biological Opinion for the Cleanup and Reuse of Former Fort Ord as it affects California tiger salamander (Ambystoma californiense) and Critical Habitat for Contra Costa goldfields (Lasthenia conjugens)*, dated March 14, 2005 (1-8-04-F-25R) and associated memoranda of agreements;
- *Biological Opinion for Bureau of Land Management Ongoing Activities on Fort Ord Public Lands*, dated December 30, 2005 (1-8-04-F/C-22); and
- *Programmatic Biological Opinion for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California*, dated May 28, 2015 (8-8-09-F-74) that superseded the previous BOs with the exception of the MOAs described in the 2005 Biological Opinion (1-8-04-F-25R).

Consultation of the 2015 Programmatic BO (8-8-09-F-74) was reinitiated in 2016. In 2017, a new Programmatic BO, *Reinitiation of Formal Consultation for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (Original Consultation #8-8-09-F-74, 81440-2009-F-0334)* dated June 7, 2017, was issued. The 2017 Programmatic BO supersedes the 2015 Programmatic Biological Opinion with the exception of the MOAs described in the 2005 BO (1-8-04-F-25R) for which the associated effects, reasonable and prudent measures, and incidental take statement provided in the 2015 BO (1-8-04-F-25R) remain valid. The impact assessment provided in this section uses information contained in these documents as well as the estimates of direct effects on HCP species using the baseline data described in Section 3.4.4, *Methodology*. This section evaluates the potential effects of the covered activities described in Chapter 2, *Proposed Action and Alternatives*. Direct impacts are assessed quantitatively; indirect impacts are assessed qualitatively.

The level of incidental take has been identified and quantified based on the extent of area mapped as occupied by each species using a number of sources; please refer to Section 3.4.4, *Methodology*. Appendix A of the Draft HCP provides the mapped habitat area and the occurrence maps for each species. Tables 4-1a and 4-1b of the Draft HCP summarize the methods and key assumptions used to conduct the impact analysis and identify the level of take requested by the Permittees.

As a basis for this analysis, this EIS/EIR assumes that the Draft HCP species and habitat occurrence data accurately represent the baseline conditions for biological resources. However, this analysis acknowledges that there are limitations associated with the methods used in the baseline studies for the Draft HCP. The coarseness of the mapping effort likely resulted in a substantial overestimate of occupied low-density habitat, as one occurrence of an HCP species within a several hundred-

acre polygon would result in an estimation of a few hundred acres of low density habitat for that species. Another limitation is the estimates of annual plant acreage. Because the baseline studies were conducted over the course of a single growing season, annual population fluctuations associated with weather, changing habitat conditions, and disturbances (such as fire) are not captured. An annual seedbank may exist in areas and would be expressed if fire or other activities created openings sufficient for growth and reproduction. These population fluctuations can substantially increase or decrease the estimated acreage of an annual plant population. Although these baseline surveys were conducted in 1992, the survey results represent a good prediction of the current distribution and abundance of special-status plants in the Plan Area. In general, plant populations remain stable unless there are some drastic changes in the habitat, so it is expected that the HCP plant species are still present in the polygons where they were reported. There are some areas that have been altered by ordinance removal or by fire, but the habitat of these areas recovered afterwards. Plants would only be expected to be extirpated from a polygon if the polygon was converted to non-habitat. The J&S staff visited several sites that were impacted as a result of ordinance removal and were able to locate plants at these locations (Robert Preston, J&S, pers. comm.). In most cases, it is unlikely that native plant populations have migrated into other polygons because these populations have been in place for so long that all suitable habitat was likely colonized centuries ago; however, some HCP species are adapted to colonize recently disturbed areas (e.g., Monterey spineflower) and, therefore, may have re-established in these areas since their baseline establishment.

Consequently, the species acreage data presented in the Draft HCP and EIS/EIR will need to be refined with a more site-specific assessment to provide a standard (i.e., the adjusted baseline described in Section 6.3.1, *Baseline Studies*, of the Draft HCP) for long-term monitoring in HMAs. However, the acreages presented are appropriate for the purposes of this analysis; any discrepancies between these data and the adjusted baseline should not substantially affect the overall habitat reserve and corridor concept for the former base.

The assessment of impacts from the implementation of the Proposed Action and alternatives discussed in the EIS/EIR relies on several assumptions made in the Draft HCP:

- Direct impacts from land uses within designated development areas would eliminate all biological resources in the land use footprint.
- All allowable development within HMAs would be required to site and design facilities to avoid or reduce impacts on HCP species and natural communities.
- The extent of the Yadon's piperia population in the Marina Northwest Corner HMA would include five acres, which would be preserved in perpetuity.
- No development activities would occur in aquatic habitat, including known or potential breeding habitat for California tiger salamander or California red-legged frog.
- Future surveys unrelated to the Proposed Action and alternatives that may require capturing and handling individuals of HCP species are not covered activities and are not assessed in this analysis.

4.4.1.1. Approach to Impact Analysis

The following impact analysis addresses direct, indirect, and cumulative impacts that may result from the implementation of the Proposed Action and alternatives. As discussed in Section 4.1, *Introduction*, direct impacts are those effects of a project that occur at the same time and place of project implementation, such as removal of habitat from ground disturbance. Land development would result in direct impacts on biological resources through conversion of biological communities to structures, roads, or landscaping; mortality of plants or wildlife from construction equipment; displacement of species because of temporary or permanent habitat loss; and abandonment of a site by wildlife because of disturbance during critical life stages. Indirect impacts are those effects of a project that occur either later in time or at a distance from the project location but are reasonably foreseeable, such as loss of aquatic species from upstream effects on water quality. Direct and indirect impacts can also vary in duration and result in temporary, short-term, and long-term effects on biological resources. A temporary effect would occur only during the activity. A short-term effect would last from the time an activity ceases to some intermediate period of approximately one to five years (i.e., repopulation of habitat following restoration). A long-term or permanent effect would last longer than five years after an activity ceases. Long-term effects may include the ongoing maintenance and operation of a project, or may result in a permanent change in the condition of a resource, in

which case it could be considered a permanent impact. As discussed in Section 4.1, *Introduction*, cumulative effects are defined as two or more individual effects that, when combined together, are significant.

The Draft Fort Ord HCP contains AMMs and MMs, which were developed to avoid and minimize impacts from covered activities and mitigate for impacts that cannot be avoided. AMMs are actions associated with covered activities that avoid and/or minimize impacts on the covered species. The implementation of AMMs is directly tied to take authorizations under the ESA and the CESA. These actions are typically BMPs to implement the covered activities. AMMs are detailed in Section 5.4, *Measures to Avoid and Minimize Impacts*, of the Draft Fort Ord HCP. MMs are conservation actions designed to restore, enhance, preserve, and/or compensate for any residual impacts on HCP species. MMs are detailed in Section 5.5, *Measures to Mitigate Unavoidable Impacts*, of the Draft Fort Ord HCP. Both AMMs and MMs are required to meet the criteria for issuance of Federal and State ITPs to authorize take of the HCP species. In some instances and where appropriate, this analysis identifies when AMMs and MMs may be implemented to reduce impacts to other sensitive biological resources (e.g., non-HCP species, sensitive habitats, etc.). Chapter 5 of the Draft HCP contains tables that identify and summarize:

- Relationship between Biological Goals and Objectives and AMMs (Table 5-1);
- HCP Required Actions – AMMs and Species Benefited (Table 5-2);
- Relationship between Biological Goals and Objectives and Mitigation Measures (Table 5-4); and
- HCP Required Actions – Mitigation Measures and Species Benefited (Table 5-5).

Where appropriate, this analysis references these tables to identify which AMMs and MMs would reduce potential impacts to sensitive biological species, including HCP species.

4.4.1.2. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a listed, candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; or
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS; or
- have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- conflict with any Federal, State, or local policies or ordinances protecting biological resources, such as those regarding tree preservation and oak woodlands; or
- conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved local, regional, or State habitat conservation plan, specifically with the approved HMP (USACE, 1997), including resulting in losses greater than those anticipated in the HMP.

4.4.2. Impacts and Mitigation Measures

4.4.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-163 through 4-183) determined the following:

- Potential impacts to biological resources would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to biological resources from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

The No Action Alternative includes development activities within the 4,241 acres of the designated development areas that are primarily developed and void of vegetation and habitat for listed species, and, thus, would not require ITPs from the USFWS and/or CDFW. Instead, endangered species permitting and mitigation to develop within the vegetated designated development areas would continue to occur on an individual, project-by-project basis. The amount of resource avoidance and preservation required by the expected regulatory setting could restrict the amount of development within the vegetated designated development areas. While the extent and number of individual ITPs the USFWS and/or CDFW would approve is unknown, for the purpose of this analysis, it is assumed that approximately 25% of the vegetated development areas (1,263 acres) could be developed during the 50-year period and the remaining vegetated development areas (3,788 acres) would be suitable, available, and provide the mitigation lands required by ITPs, if needed (please refer to **Table 2-2**). Mitigation strategies are highly variable and highly dependent on the species and extent and intensity of the impact. Mitigation requirements are likely to include on-site areas of preservation within a specific project site, and smaller, non-contiguous areas of preservation within and outside the Plan Area. Generally, required mitigation actions under the No Action Alternative would either retain lands in their existing condition (i.e., preservation) or convert lands to a more natural state (i.e., habitat restoration or enhancement). Habitat management activities with mitigation lands would vary. Preservation lands may require minimal work to maintain habitat values, while restoration and enhancement activities may require construction activities such as earth movement and grading. As a result, the specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the habitat reserve areas or any mitigation lands are unknown at this time.

In addition, under the No Action Alternative, ITPs would not be issued by the Wildlife Agencies for development activities or HMP-required habitat management activities within the habitat reserve areas. Given the limited availability of mitigation land in the area and for the purpose of this analysis, it is reasonably assumed that any development activities within the non-Federal HMP-designated habitat reserve areas would not be feasible and would not occur. Most of the HMP-required habitat management activities require ground disturbance, which could result in take of Federal and/or State listed species. Therefore, only a subset or limited HMP-required habitat management activities (i.e., preservation, research, and some restoration activities) could be implemented in the habitat reserve areas without ITPs. As a result, the specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the habitat reserve areas or any mitigation lands are unknown at this time. Under the No Action Alternative, BLM would continue to maintain roads, trails, and fuelbreak, which total approximately 478 acres, or 3% of FONM.

In addition to the assumed ESA and CESA mitigation requirements, the Reuse Plan contains policies requiring the conservation and management of oak woodland habitat within specific designated development parcels. Biological Resources Policy B-2 and Programs B-2.1 and B-2.2 require the County and City of Seaside to designate an oak woodland conservation area within the polygons specified and manage and monitor the conservation area. With assistance from FORA, the County and City of Seaside are currently in the process of identifying a conservation area and preparing a draft management and monitoring plan. As described in the Final Biological Baseline Report for the Oak Woodland Conservation Area Project (DD&A, 2017), it is estimated that approximately 135 acres of oak woodland habitat should be conserved and managed to meet the requirements of the Reuse Plan.

As described in Section 3.4, *Biological Resources*, there are numerous special-status plant and wildlife species that are known or have the potential to occur within the Plan Area. In addition, migratory birds, raptors and their nests, and other avian species protected under CFG Code and the MBTA, are known or have the potential to occur in the Plan Area. Some of these special-status species are also species addressed in the HMP, and some are Federally and/or State listed species.

Future development activities and habitat management activities (i.e., within the FONM) under the No Action Alternative can result in direct and indirect impacts to special-status species, including mortality, permanent or temporary loss of habitat, habitat fragmentation limiting or prohibit dispersal, introduction and spread on non-native invasive species, trampling, lighting, noise and vibration, dust, and erosion and sedimentation. Anticipated impacts to natural communities under the No Action Alternative are shown in **Table 4.4-1**; **Table 4.4-7** at the end of this section provides a comparison of potential impacts to special-status species under each of the alternatives. These impacts would be evaluated on a project-by-project basis pursuant to NEPA and CEQA, as applicable, and potentially significant impacts would be identified and mitigated pursuant to the requirements of appropriate laws and regulations (please refer to Section 3.4.2, *Regulatory Framework*).

While implementation of the HMP would be required and some regional benefits would occur, the HMP is not as comprehensive as the Draft HCP's conservation strategy, nor does it include the AMMs and MMs required by the Draft HCP. Impacts to biological resources and associated mitigation by individual projects would continue to result in project-by-project compensation. As such, each jurisdiction would be required to comply with the Federal and State ESAs and may be required to obtain take authorization from the USFWS and CDFW in order to implement the management requirements and avoid being in violation of the Acts.

Under the No Action Alternative, there would be no base-wide, comprehensive mitigation strategy and, therefore, formulating adequate mitigation for future projects and activities may become more complicated and constrained as redevelopment of the former Fort Ord occurs on a project-by-project basis. Conservation of species and habitat without the Draft HCP would likely result in a pattern of conservation that is fragmented and managed in a piecemeal fashion under this project-by-project permitting process. The conservation strategies for the numerous ITPs would be less integrated and mitigation would be less likely to be effective on a small and large scale. For example, while project-by-project mitigation may be effective at targeting and preserving habitat, the creation of numerous smaller mitigation sites may result in ineffective species management and preservation. Individual, project-level mitigation may further reduce the success of mitigation, and ultimately, the benefits to special-status species. Project applicants may avoid mitigation responsibilities, resulting in reduced habitat quality within the mitigation sites. There would be no overarching implementing entities responsible to coordinate and track mitigation implementation and ensure success over time.

Table 4.4-1. Summary of Natural Communities Impacts and Preservation under the No Action Alternative

	Natural Community (acres)							Total
	Coastal Strand & Dune	Maritime Chaparral	Coastal Scrub	Coast Live Oak Woodland & Savanna	Grasslands	Riparian	Wetland & Open Water	
Plan Area Total	987	12,349	662	4,736	4,421	191	127	23,473
Designated Development Areas	51	2,045	373	1,559	1,020	2	2	5,051
HMAAs	936	10,305	289	3,177	3,402	189	125	18,422
Development and Habitat Management Impacts								
Designated Development Areas	13	512	93	390	255	0	0	1,263
Allowable Development in HMAAs	0	0	0	0	0	0	0	0
Inter-Garrison Road Widening	0	0	0	0	0	0	0	0
MCWD Facilities	0	0	0	0	0	0	0	0
FORTAG Alignment	0	0	0	0	0	0	0	0
Marina Airport Extension	0	0	0	0	0	0	0	0
Road, Trail, and Fuelbreak Maintenance (FONM)	0	73	7	48	81	0	0	209
Total Removed	13	512	93	390	255	0	0	1,472
Percentage of Total Impacted	1%	4%	14%	8%	6%	0%	0%	6%
Total Preserved	974	11,837	569	4,346	4,166	191	127	22,001
Percentage of Total Preserved	99%	94%	86%	92%	94%	100%	100%	94%

4.4.2.2. Alternative 2: Proposed Action – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities.

Except where noted in the individual impact sections below, activities under the conservation strategy, would not cause potentially significant impacts on biological resources. However, as discussed below and in the impact analyses for other resource topics, habitat management activities under the conservation strategy that require ground or vegetation disturbance could result in potentially significant impacts.

All covered activities implemented under the Proposed Action, including both development and habitat management activities, would be subject to applicable AMMs and MMs required by the HCP, which would reduce impacts to biological resources; as noted above, Chapter 5 of the Draft HCP contains tables that identify and summarize these AMMs and MMs. Under the Proposed Action Alternative, the effects on biological resources from take associated with lawfully undertaken covered activities are examined assuming implementation of the Draft HCP.

Impact BIO-1: Impacts to Special-Status Species and Habitat.

Impact Mechanisms under the Draft HCP

Specific impact mechanisms are described for each of the major categories of covered activities: development in designated development areas (including Borderlands); allowable development in HMAs; future road corridors and infrastructure construction, operations, and maintenance in HMAs; operations and management activities in HMAs; and HCP required actions that may result in take. As described in Section 4.1.1.3, *Approach to Analysis of Resources Considered*, for the purposes of this EIS/EIR analysis, the major categories of covered activities have been further grouped into two categories: Category 1- development activities, and Category 2 – habitat management activities.

As described above, the level of incidental take of each HCP species and their habitat, as well as potential impacts to critical habitat (where applicable), have been quantified for *all* covered activities under the Draft HCP (i.e., Category 1 – development activities and Category 2 – habitat management activities) in order to meet permit issuance criteria.¹ However, impacts to non-HCP special-status species that may occur as a result of Category 2 activities – habitat management activities, have been addressed qualitatively based on the presence of potential habitat, as the exact location, timing, and extent of the habitat management activities vary throughout the HMAs. However, impacts to sensitive habitats and other sensitive biological resources that may occur as a result of Categories 1 and 2 have been primarily addressed qualitatively; impacts have been quantified where data is available and that level of analysis is appropriate for the specific activity.

Category 1 – Development Activities

Development in Designated Development Areas

The designated development areas comprise 9,292 acres or about 33% of the Plan Area. Within the designated development areas, 4,241 acres are existing developed areas and 5,051 acres are natural land cover (**Table 4.4-2**). The Draft HCP assumes that direct impacts from land uses within designated development areas would eliminate all biological resources in the land use footprint, resulting in the removal of 5,051 acres of natural land cover (**Table 4.4-2**).² Therefore, an analysis for specific projects within designated development areas was not conducted.

Some development activities could result in the retention of small patches of natural communities and special-status species populations. However, the biological value of these remnant communities would be reduced due to their small size, their

¹ The ITPs provides take coverage for the identified activities on non-Federal lands only. Any activities that may result on take on Federal lands (i.e., BLM or Army) would be addressed through Section 7 consultation. However, this analysis evaluates impacts within the entire Plan Area, including Federal lands.

² Excluding riparian and wetland and open water communities, which occur on approximately four acres within the designated development areas.

isolation, and the anthropogenic impacts from surrounding development. In the case of Borderland parcels, some natural communities may be retained at the interface with the HMAs and would be contiguous with the HMAs. However, because the extent of these areas cannot be predicted or guaranteed, this analysis assumes the entire Borderland parcels would be developed. Since the impact analysis assumes the complete development of Borderland parcels, fuelbreaks required for Borderlands Category 1 and Borderlands Category 2 were not calculated separately from, and are included in, designated development area impact acreages.

Indirect impacts on biological resources within the HMAs may occur as the human population grows within and adjacent to the Plan Area. Predation by domestic pets, disturbance to wildlife by recreationists, soil erosion resulting in loss of plant habitat or degradation of wetlands, harassment due to reuse at the urban/wildland interface, unauthorized vehicle access, trash dumping, landscape waste dumping, and spread of non-native species could result in adverse effects on biological resources within the HMAs. However, the Draft HCP requires minimization measures in Borderlands parcels to include barriers to unauthorized vehicle use, measures to prevent erosion, measures to prevent the spread of non-native species, and fuelbreak construction (Chapter 5, *Conservation Strategy*, of the Draft HCP).

Table 4.4-2. Summary of Natural Communities Impacts and Preservation under the Proposed Action Alternative

	Natural Community (acres)							Total
	Coastal Strand & Dune	Maritime Chaparral	Coastal Scrub	Coast Live Oak Woodland & Savanna	Grasslands	Riparian	Wetland & Open Water	
Plan Area Total	987	12,349	662	4,736	4,421	191	127	23,473
Designated Development Areas	51	2,045	373	1,559	1,020	2	2	5,051
HMAs	936	10,305	289	3,177	3,402	189	125	18,422
Category 1 – Development Impacts								
Designated Development Areas	51	2,045	373	1,559	1,020	0	0	5,047
Allowable Development in HMAs	142	228	18	152	174	0	0	714
Inter-Garrison Road Widening	0	<1	0	18	<1	0	0	18
MCWD Facilities	2	1	<1	25	1	0	0	30
FORTAG Alignment	0	2	1	10	6	0	0	19
Marina Airport Extension	0	0	4	3	24	0	0	31
Total Removed	195	2,276	396	1,767	1,225	0	0	5,859
Percentage of Total Impacted	20%	18%	60%	37%	28%	0%	0%	25%
Total Preserved	792	10,073	266	2,969	3,196	191	127	17,614
Percentage of Total Preserved	80%	82%	40%	63%	72%	100%	100%	75%
Category 2 – Habitat Management Activity Impacts in HMAs								
Road, Trail, and Fuelbreak Maintenance	4	320	8	90	100	0	0	522
Total Removed in HMAs	4	320	8	90	100	0	0	522
Percentage of Total Impacted in HMAs	<1%	3%	3%	3%	3%	0%	0%	3%
Total Preserved in HMAs	932	9,985	281	3,087	3,302	189	125	17,900
Percentage of Total Preserved in HMAs	99%	97%	97%	97%	97%	100%	100%	97%
Categories 1 and 2 Impacts								
Total Removed	199	2,596	404	1,857	1,325	0	0	6,381
Percentage of Total Impacted	20%	21%	61%	39%	30%	0%	0%	27%
Total Preserved	788	9,753	258	2,879	3,096	191	127	17,092
Percentage of Total Preserved	80%	79%	39%	61%	70%	100%	100%	73%

Allowable Development in HMAs

Limited development totaling 777 acres would be allowed in some of the HMAs as indicated in **Table 4.4-3**. These development allowances within the HMAs include facilities and infrastructure to support habitat management and recreational and educational use. As such, the acreages could include development of educational kiosks, fencing, parking areas, new roads and trails, and campgrounds, as well as structures for plant nurseries and equipment storage facilities. To the extent possible, the allowable development in HMAs would continue to support HCP species habitat. For example, on the 110 acres for Lookout Ridge, the current vegetation of non-native grass would be maintained and used for overflow parking, but would continue to provide upland dispersal habitat for California tiger salamander.

All allowable development in HMAs would be required to site and design facilities to avoid or reduce impacts on HCP species and natural communities. Specific development envelopes have not been designated within most of the HMAs; however, minimization measures to site facilities to avoid populations of HCP species would be implemented, thereby reducing losses of these species. While the population extent of Yadon's piperia in the Marina Northwest Corner parcel has not yet been established, the take assessment assumes that all but five acres of the parcel would be developed considering that the population is small and localized. No development would occur in aquatic or wetland habitats, including known or potential breeding habitat for California tiger salamander and California red-legged frog.

Public use of the FONM and other HMAs where public access is allowed could also affect HCP species through trampling, harassment, or degradation of habitat. The management actions that the HMA managers would implement to control the anthropogenic effects resulting from public use would reduce or minimize this impact.

Table 4.4-3. Allowable Development in Habitat Management Areas

Habitat Management Area	Allowable Development (acres)
Fort Ord National Monument	292
Fort Ord Dunes State Park	142
Fort Ord Natural Reserve ^a	8
East Garrison North	0
East Garrison South	0
Habitat Corridor/Travel Camp	52
Oak Oval Reserve	4
Parker Flats Reserve	0
Landfill Parcel	81
Laguna Seca Recreational Expansion—Wolf Hill	30
Laguna Seca Recreational Expansion—Lookout Ridge	110
Salinas River Habitat Area	0
Marina Airport Habitat Reserve	0
Marina Northwest Corner	58
Range 45 Reserve	0
Natural Area Expansion	0
Total	777

^a FONR allowable development in HMAs includes a 1% development allowance, plus 1.89 acres permitted under the 1999 Amendment to the HMP. Under the 1999 Amendment, an additional 6.89 acres were added to FONR. Of the 6.89 acres, five acres would be protected in perpetuity while development of 1.89 acres is permitted.

Future Road Corridors and Infrastructure Construction, Operation, and Maintenance in HMAs

The impact assessment for infrastructure and facilities projects in HMAs assumes that ground-disturbing effects would be the same as development: all biological resources would be lost within the development footprint. However, for some of the facilities, the ground disturbance would be temporary and HCP plant species may be able to recolonize the disturbed areas. The extent of the disturbance varies by project as described in the following sections. Indirect effects also vary depending on the type of project.

Future Road Corridors in HMAs

The construction, operation, and maintenance of the roads within HMAs are covered activities under the Draft HCP. The proposed Inter-Garrison Road widening would encroach into the East Garrison North (7.5 acres) and Habitat Corridor/Travel Camp (10.5 acres) HMAs based on conceptual plans. The roadway within the Marina Northwest Corner HMA is proposed as a four-lane arterial with a 122-foot-wide ROW. The alignment of this road would avoid any Yadon's

piperia, including a suitable buffer area. As described above, the impact assessment assumed that all but five acres of the Marina Northwest Corner HMA would be developed. The five undeveloped acres would remain undeveloped to accommodate the Yadon's piperia that was rediscovered in 2006. Minimization measures to avoid direct loss of Yadon's piperia would be required in siting this road and it is included as part of the 58 acres of development that is assumed for this HMA.

The City of Marina is in the process of preparing an Airport Master Plan Update for the Marina Municipal Airport that was not previously addressed in the HMP. This proposed plan would result in future improvements at the airport, including a future road that may be constructed on the eastern end of the runway to provide access to the designated development area to the north of the airport. Due to Federal Aviation Administration regulations, the road may be required to encroach into the Salinas River HMA and impact approximately three acres.

The total estimated direct impacts resulting from the construction of the proposed future road corridors (i.e., Inter-Garrison Road widening and the road associated with the Airport Master Plan Update) would be approximately 21 acres (**Table 4.4-4**). The future operation and maintenance of these roads would not result in additional impacts as the road ROW would be maintained as paved and/or gravel areas lacking suitable HCP species habitat. In addition to direct impacts of road corridor construction, there would be indirect impacts. New roads create dispersal corridors for non-native plants and introduce runoff of vehicle waste (e.g., oil, grease, radiator fluid). Vehicular traffic on roads generates debris such as tires, litter, or car parts that can be hazardous to wildlife. Expanded roads typically increase vehicular traffic and/or traffic speed, decrease habitat connectivity, and increase the likelihood of take of individual species. For example, injury or mortality of terrestrial species such as California tiger salamander and California red-legged frog may increase as they disperse across the road. Minimization measures are identified in Section 5.4, *Measures to Avoid and Minimize Impacts*, of the Draft HCP.

Marina Coast Water District Facilities

The MCWD facilities and associated activities within HMAs include: new water distribution pipelines; tank improvements and construction within the Habitat Corridor/Travel Camp, East Garrison North, and FONM; well abandonment within the UC FONR; and improvements to the wastewater lift station within the State Parks property (**Table 4.4-4** and **Figure 2-24**). Proposed development by MCWD in the FONM (i.e., Huffman Tank and pipeline) would occur in existing easements granted to MCWD from the Army, and would require a ROW issued by BLM. Potential MCWD development would be part of BLM's 2% development allowance if approved and authorized under a BLM right-of-way. To be conservative in impact estimate, the 0.5 acres of MCWD development in FONM is assumed to be in addition to allowable development in the FONM. The maximum extent of area in HMAs that could be affected by the construction of MCWD facilities is 36 acres.

Fort Ord Recreational Trail and Greenway

FORTAG is proposed as a continuous 12-foot wide paved bikeway with an open-space buffer on both sides (**Figure 2-25**). The conceptual alignment for FORTAG would cross FONR, Marina Airport Habitat Reserve, Salinas River Habitat Area, East Garrison North, Habitat Corridor, Natural Area Expansion, Marina Northwest Corner, and Landfill Parcel HMAs. To the extent possible, the trail is aligned within Borderlands of the HMAs. The impact acreage within the HMAs is approximately 19 acres and assumes a 52-foot wide construction area, with the exception of a few designated locations for staging and underpass construction (**Table 4.4-4**). FORTAG-specific MM-39 (Section 5.5.5, *Covered Activity-Specific Mitigation Measures*, of the Draft HCP), which requires mitigation for impacts at a 1:1 ratio, would apply to FORTAG.

Table 4.4-4. Estimated Area of Impact for Future Road Corridors and Infrastructure Projects in HMAs

Habitat Management Area	Road Corridors (acres)	MCWD Facilities (acres)	FORTAG (acres)	Airport (acres)
Fort Ord National Monument ^a	—	0.5	—	—
Fort Ord Dunes State Park	—	2.6	—	—
Fort Ord Natural Reserve	—	0.5	—	—
East Garrison North Reserve	7.5	1.1	3.5	—
East Garrison South Reserve	—	—	—	—
Habitat Corridor/Travel Camp	10.5	30.9	3.3	—
Oak Oval Reserve	—	—	—	—
Parker Flats Reserve	—	—	—	—
Landfill Parcel	—	—	6.5	—
Laguna Seca Recreational Expansion—Wolf Hill	—	—	—	—
Laguna Seca Recreational Expansion—Lookout Ridge	—	—	—	—
Salinas River Habitat Area	—	—	0.5	3.0
Marina Airport Habitat Reserve	—	—	4.4	30.0
Marina Northwest Corner	— ^b	—	—	—
MPC Reserve	—	—	—	—
Natural Area Expansion	—	—	1.1	—
Total	18	35.6	19	33

^a Potential MCWD development in FONM would be part of BLM's 2% development allowance if approved and authorized under a BLM right-of-way.

^b The conceptual alignment is proposed within the 58-acre development area within this HMA, and, therefore, not estimated separately.

Marina Airport Master Plan Update

The Marina Airport Master Plan update would include the construction of runway extensions, corresponding modified taxiways, and runway safety zones. Runway 11-29 is planned to be extended from 3,483 feet to 5,800 feet in the long term. While the current runway length is adequate to meet the needs of current users, to accommodate more activity by larger turboprop and small business jet planes, a runway length of 4,000 to 5,000 feet would be needed. An ultimate runway length of 5,800 feet is planned for the airport. These additions would affect approximately 30 acres of the 130-acre Marina Airport HMA west of the runway (**Table 4.4-4**). In addition, as discussed above, a future road may be constructed on the eastern end of the runway to provide access to the designated development area to the north of the airport and may result in impacts to three acres of the Salinas River HMA. Marina Airport runway extension-specific MM-40 (Section 5.5.5, *Covered Activity-Specific Mitigation Measures*), which requires mitigation for impacts at a 1.25:1 ratio, would apply to the Marina Airport runway extension.

Category 2 – Habitat Management Activities

Operation and Management Activities in HMAs

Maintenance of Roads and Trails

Maintenance of roads and trails in HMAs could eliminate plant species within the ROW by being mowed during the growing season; crushed by vehicles; trampled, dug up, or buried by grading; or by burial of the soil seed bank. While regular use of the travel lane may eliminate some plants, annual HCP plant species may persist in an equal or greater area surrounding the trail or dirt road due to the created disturbance regime. However, the disturbance could also increase the density and abundance of non-native grasses and forbs that could outcompete the native plants. Maintenance of vehicle routes and trails could kill or injure California tiger salamander or California red-legged frog by vehicle strike, burial or crushing by grading machinery, and crushing of burrows that extend into dirt roads and road edges.

Road and trail maintenance would indirectly affect HCP species by: fragmenting populations; trampling habitat (including burrows), particularly if cyclists or equestrians go off trails; alteration of habitat through soil compaction; and introducing

and/or spreading invasive species, particularly non-native annual grasses at road edges. Measures to minimize the effects of road and trail maintenance include timing activities outside of the breeding season for California tiger salamander, facilitating re-establishment of annual HCP plant species outside of the travel lane, controlling the spread of non-native plants, and maintaining unsurfaced sandy tracks wherever possible.

Quantitative estimates of the direct impacts of road and trail maintenance within HMAs were made based on the descriptions of these activities provided by BLM for the FONM, UC FONR, and the County (**Table 4.4-5**); please refer to Section 4.2.3.1, *Maintenance of Roads and Trails*, in the Draft HCP for methodology.

Table 4.4-5. Estimated Area of Impact for Road, Trail, and Fuelbreak Maintenance in HMAs

Habitat Management Area	Road Maintenance ^a (acres)	Trail Maintenance (acres)	Fuelbreak Maintenance (acres)	Total (acres)
Fort Ord National Monument	42	36	400	478
Fort Ord Dunes State Park	2.5	1.7	—	4.2
Fort Ord Natural Reserve	2.3	7.25	5.9	15.45
East Garrison North Reserve	0.4	1	5.9	7.3
East Garrison South Reserve	0.8	1	7.4	9.2
Habitat Corridor	0.7	4.5	—	5.2
Travel Camp	0.3	0.5	—	0.8
Oak Oval Reserve	0.2	1	1.9	3.1
Parker Flats Reserve	1.1	3	10	14.1
Landfill Parcel	0.7	1.5	—	2.2
Laguna Seca Recreational Expansion— Wolf Hill	0.1	0	—	0.1
Laguna Seca Recreational Expansion— Lookout Ridge	0.3	0.5	—	0.8
Salinas River Habitat Area	0.1	0.1	—	0.2
Marina Airport Habitat Reserve	0.4	0.3	5.2	5.9
Marina Northwest Corner	0.01	0.01	—	0.02
MPC Reserve	0.6	0.4	5.6	6.6
Natural Area Expansion	0.06	2	—	2.06
Total	52.57	60.76	441.9	555.23

^a This includes only the road shoulder; it is assumed the travel lanes are existing and/or currently disturbed.

Maintenance of Fuelbreaks

Fuelbreaks are required to maintain compliance with fire code and fire protection planning within the Plan Area. At the urban/wildland interface, they are also required to comply with the AMMs identified in the Draft HCP (Chapter 5, *Conservation Strategy*, of the Draft HCP). The following description of fuelbreak maintenance applies only to fuelbreak maintenance within HMAs. The purpose of the discussion is to describe the impact mechanism in order to quantify take of covered species, not to identify the parties responsible for fuelbreak maintenance. Parties responsible for maintaining fuelbreaks as part of AMMs are identified in Chapter 5, *Conservation Strategy*, of the Draft HCP.

Approximately 441 acres of HMA lands would be impacted by fuelbreak maintenance (**Table 4.4-5**); please refer to Section 4.2.3.2, *Maintenance of Fuelbreaks*, in the Draft HCP for methodology.

Maintenance of fuelbreaks in HMAs could both benefit and adversely affect HCP species. Removal of the shrub canopy could benefit annual plant species by creating the openings and bare mineral soils needed for growth and reproduction. However, if present in the fuelbreak area, plants could be crushed, trampled, or uprooted, and the soil seed bank could be exposed during vegetation cutting or buried under chipped or piled brush. Repeated placement of chipped material may also eventually alter the nature of the sandy soils as the woody matter slowly decays. Mechanical and manual clearance of vegetation in fuelbreaks could injure or kill California tiger salamander or California red-legged frog by crushing burrows or animals on the ground when machinery used for cutting gouges the soil, particularly as the machinery turns. Burning, chipping, or grinding piled material cleared from fuelbreaks could also kill animals unable to move out of harm's way. HCP Measures to minimize these effects include timing of fuelbreak maintenance, limiting maintenance activities to areas

necessary to support a prescribed burn or contain a potential wildfire, and reducing amount of chipped debris placed in areas with a sandy substrate.

The impact assessment assumes that all habitat for HCP species would be lost within these fuelbreak areas. This may be an overestimate, as fuelbreaks could provide suitable habitat conditions for sand gilia, Monterey spineflower, seaside bird's beak, and other HCP species. Because the exact locations of fuelbreaks in relation to HCP species occurrences cannot be determined at this time, the impact assessment assumed that the total area of fuelbreak in the HMA would result in that amount of take for each HCP species recorded to occur in the parcel.

Beach Management and Recreational and Educational Use

The Draft HCP includes beach management and recreational and educational use as covered activities. As described in Chapter 2, *Proposed Action and Alternatives*, beach management would involve marine mammal rescue, assistance of stranded boats, law enforcement, removal of hazardous materials, and any other activities associated with public safety. These activities would be short-term and temporary, and the take of HCP species would be minimal. Recreational and educational uses would include hiking, biking, equestrian use, and educational programs and training. Recreational and educational uses may result in impacts similar to monitoring described below (e.g., trampling of HCP species, temporary habitat degradation, and incidental capture). AMMs were developed to avoid and minimize impacts on HCP species. AMM implementation would avoid and minimize impacts on HCP species.

HCP Required Actions that may Result in Take

Draft HCP required actions are expected to have a net benefit on all HCP species, but some activities may have temporary or permanent adverse impacts resulting in take. Impacts from HCP required actions on HCP species are described below.

Revegetation, Restoration, and Enhancement

Restoration activities are anticipated to occur on FONM, FONR, FODSP, and other HMAs. Habitat revegetation, restoration, and enhancement could result in permanent and temporary impacts on HCP species. Restoration activities could remove HCP plant species if they occupy the restoration site or if plants or their soil seed bank are dug up, trampled, or buried during recontouring, revegetating, fencing, or other restoration activities. Earth-moving could kill or injure wildlife species or destroy their habitat. Indirect effects of the restoration include increased sedimentation during and following the activity. For all habitat restoration and enhancement activities, AMM implementation would avoid and minimize impacts. Overall, restoration and enhancement activities are expected to have a long-term beneficial effect on HCP species. For example, restoration would benefit Monterey spineflower critical habitat by removing non-native plants and expanding potential habitat for Monterey spineflower. Habitat enhancement may temporarily impact species, but would be expected to provide a long-term benefit for plants and animals that inhabit the natural communities. Prescribed burning, alternative fuel management and non-native species control are also restoration and enhancement activities. The potential effects of these activities on HCP species are described separately below.

Prescribed Burning and Alternative Vegetative Management

Prescribed burning and alternative vegetative management could result in direct and indirect impacts on HCP species. The deployment of foams or fire retardants at prescribed burn boundaries may adversely directly affect HCP plant species by killing vegetation and indirectly by adding nitrogen to the soil to the extent that non-native invasive grasses increase. The addition of nitrogen could also increase the density of established native vegetation, making germination sites for sand gilia and Monterey spineflower less available. California tiger salamander and California red-legged frog could be injured or killed during the prescribed burn through crushing, burying, burning, or from fire retardants through direct contact or contamination of breeding sites.

Prescribed burning activities and alternative vegetative management are anticipated to occur on FONM, FONR, East Garrison Reserve, Parker Flats Reserve, Landfill Parcel, and Range 45 Reserve. However, because only BLM FONM has committed to conduct prescribed burns and MMs require only FONM and East Garrison South (if feasible prior to development of adjacent parcels) to conduct prescribed burns, this analysis assumes FONM and East Garrison South would conduct prescribed burns as part of HCP implementation. Due to the proximity of existing development, it would be particularly difficult to implement prescribed burns in the remaining HMAs, and, therefore, for the purposes of this analysis, it is assumed that alternative vegetative management would occur in those HMAs. Treatments such as cutting, mowing, goat grazing, and other measures would be used to gain a better understanding of the effects of alternative vegetation

management strategies or for use in areas considered too hazardous to burn. These treatments could result in direct impacts, such as morality from removal or trampling, and indirect impacts, such as erosion and sedimentation.

The prescribed burn and alternative vegetative management program design, monitoring, adaptive management, and AMMs implementation would result in a net benefit to most of the HCP species.³ Results from a coordinated, management-orientated study would evaluate alternatives to burning and the results of the study would be applied to HMA management. Each burn and alternative treatment would be planned and monitored, and the results would be evaluated to ensure that the desired effect of improved habitat quality can be obtained. As a result, prescribed fire and alternative vegetative treatments are not likely to have any long-term adverse effects on HCP plant species; rather, they are intended to improve the habitat for these species.

Non-Native Invasive Species Control

Non-native invasive species control could result in impacts on HCP species. Non-native invasive species control would be applied across all HMAs, including approximately 100 acres per year of Permittee-funded non-native invasive weed control on FONM. Manual and mechanical methods and herbicide treatment to remove non-native plant species could also remove HCP plant species if they co-occur. The HCP plant species seed bank could be adversely affected through burial or exposure at the ground surface during non-native species removal activities that occur in the dry season. Manual weed control activities could injure or kill HCP animal species or result in temporary habitat degradation. The use of chemical controls could affect HCP species if not properly applied. HCP plant species could be killed by drift or overspray, adversely impact water quality associated with runoff containing pesticides, and animals could experience direct acute effects. Pesticide use⁴ is permitted under the Draft HCP only to achieve biological goals and objectives (e.g., non-native, invasive species control), in accordance with label instructions, and in compliance with State and local laws. Implementation of AMMs, including but not limited to, AMM-38 (limit herbicide and pesticide use and apply in accordance with AMMs identified for non-native species control) and AMM-45 (minimize use of chemical herbicides for controlling non-native invasive plant species), would prevent species impacts from pesticide use.

Many invasive species can be reduced with carefully timed grazing of a frequency and intensity to suppress or promote target species. In the Plan Area, domestic sheep grazing is expected to occur on approximately 700 acres and could affect HCP species by trampling, compacting soils, contaminating habitats with urine and feces, increasing sediment movement into ponds by denuding vegetation and disturbing soils in the watershed, and reducing vegetative cover at pond margins. Removal of water for domestic sheep could reduce pond longevity resulting in death of California tiger salamander or California red-legged frog. AMMs (e.g., AMM-48, limit livestock water use to no more than three ponds annually) and monitoring and adaptive management measures were developed to avoid and minimize the adverse impacts anticipated from non-native invasive species control.

The Cooperative would also control California tiger salamander hybrids in ponds. The application of control measures, and the selection of ponds in which they would be applied, would be determined in conjunction with, and approval from, the USFWS and CDFW. Altering the hydroperiod to make aquatic conditions more favorable to native California tiger salamanders can affect habitat for other native and non-native species that rely on perennial water. Measures to remove hybrids could also impact non-target native and non-native species (e.g., Pacific chorus frog); however, these species would benefit from the removal of hybrids, which can be superior competitors and predators of native species.

AMMs and monitoring and adaptive management would be applied to avoid and minimize adverse impacts and inform management. For example, direct effects of herbicide use would be minimized by following the application protocol provided in Appendix E of the Draft HCP. Livestock grazing would be monitored and if it is determined to be detrimental to grassland habitat for HCP species (i.e., effectiveness monitoring demonstrates decline in abundance and/or distribution of the species due to management action), other methods would be considered (Chapter 6, *Monitoring and Adaptive Management*, of the Draft HCP). As the result of AMMs, monitoring, and adaptive management, non-native invasive species control would result in net species benefits, such as increased survival, reproduction, and opportunity for population expansion.

³ Prescribed burn and alternative vegetation management would occur within maritime chaparral habitat. Therefore, western snowy plover, which does not utilize maritime chaparral, would not receive the benefits of these activities.

⁴ The term pesticide is inclusive of herbicides.

Erosion Control for Habitat Restoration and Enhancement

Erosion control for habitat restoration and enhancement could impact HCP species. Erosion control would be applied across all HMAs. Activities to prevent future erosion, typically within access roads and fuelbreaks, include heavy equipment use to repair erosion channels and construct water bars. Species could be impacted if they are present onsite during erosion control activities. AMM implementation would avoid and minimize impacts on HCP species. For example, efforts such as BMP implementation during construction and limiting the extent of the work area would reduce direct effects on HCP species during construction/repair activities. Accordingly, AMM implementation during erosion control for habitat restoration and enhancement would result in net HCP species benefits.

Monitoring

Monitoring could result in impacts on HCP species. Draft HCP required monitoring could result in the trampling of HCP species, temporary habitat degradation, and incidental capture. For example, aquatic monitoring may occasionally kill or injure California tiger salamander or California red-legged frog larvae or eggs due to incidental capture or trampling. AMMs and monitoring requirements were developed to avoid and minimize monitoring impacts on HCP species. AMM implementation and monitoring would avoid and minimize impacts on HCP species. For example, impacts would be avoided due to the few number and awareness of the personnel assigned to conduct the monitoring. Although there may be some impact on HCP species as a result of monitoring activities, the data collected are likely to benefit the species by informing future management, monitoring, and recovery actions.

Impact BIO-1a: Impacts to HCP Species and Habitat under Draft HCP

Covered activity impact mechanisms, as described above, may result in adverse impacts on HCP species and their habitat. A conservative acreage estimate was made for all direct impacts. The acreage of impacts represents a worst-case scenario; it does not take into account AMM implementation (Section 5.4, *Measures to Avoid and Minimize Impacts*, in the Draft HCP), the nature of the impact (i.e., temporary, permanent), or indirect benefits. As such, impacts within HMAs may be less than indicated due to AMM implementation. For example, impacts to HCP species were estimated based on the areal extent of the impact mechanism (e.g., development footprint), without consideration of their nature or AMM implementation. Impacts associated with MCWD pipeline maintenance would likely be temporary, except perhaps for the likely need to clear woody chaparral vegetation from the easements. Still, the assessment calculated loss of species' habitat occurring within the defined impact corridors for the pipelines. Although fuelbreak maintenance may enhance habitat for sand gilia and Monterey spineflower, to be conservative, the impact assessment assumes that these species would not recolonize within the fuelbreaks.

Detailed impact mechanisms, broken down by activity type and HMA, are provided in **Tables 4.4-6a** and **4.4-6b** for HCP plant and wildlife species, respectively. Please refer to Chapter 4, Section 4.3, *Effects on HCP Species*, in the Draft HCP for more detailed discussions of species effects. HCP required actions are expected to have a net benefit on all HCP species and their habitat. Mitigation measures and AMMs intended to benefit HCP species and their habitat are detailed in Chapter 5, *Conservation Strategy*, of the Draft HCP.

As shown in **Table 4.4-2**, *Summary of Natural Communities Impacts and Preservation under the Proposed Action Alternative*, approximately 73% of the natural communities on which HCP species depend would be preserved.⁵ The conservation strategy of the Draft HCP is designed to achieve the biological goals and objectives for each natural community and for the HCP species associated with those natural communities. Biological goals are broad, guiding principles based on the conservation needs of the resource. Goal statements describe the desired future condition for each natural community and HCP species with full implementation of the Draft HCP. Objective statements are expressed as conservation targets or actions, or as studies to collect information necessary to implement adaptive management.

The conservation strategy in the Draft HCP provides for the establishment, enhancement, and long-term management of natural communities that support HCP species in order to protect and enhance populations of these species and ensure their long-term viability. Specifically, the conservation strategy would accomplish the following objectives:

⁵ Potential impacts to sensitive natural communities are discussed in Impact BIO-2.

- Ensure covered activities would avoid or minimize impacts on HCP species and natural communities to the maximum extent practicable.
- Preserve HCP species' populations and habitats.
- Restore, enhance, and maintain species' habitat and natural communities to mitigate for direct and indirect impacts on particular species and vegetation communities.
- Restore, enhance, and maintain HCP species' habitat.
- Manage preserved HMAs, including appropriate natural processes, to maximize the functions of habitats for HCP species.

It is important to note that, while the designated development areas support viable habitat for HCP species, these habitat areas were not considered essential to meet the HCP biological goals and objectives in the development of the conservation framework of the HCP, which was based on the habitat conservation area and corridor system developed in the HMP. The HMP established a habitat conservation area and corridor system and parcel-specific land use categories and management requirements for all lands on former Fort Ord. The conservation areas were designed through the application of ecological concepts created by combining the distributions of the following resources:

- sites supporting high or medium densities of known populations of sand gilia and Monterey spineflower;
- sites supporting high and medium-quality habitat (as defined by the density of buckwheat) or known occurrences of Smith's blue butterfly;
- sites supporting potential or known coastal nesting habitat for western snowy plover; and
- study polygons supporting the highest richness of HMP species (i.e., seven or more HMP species or suitable habitat occurrences).

A comprehensive monitoring and adaptive management program is outlined in the Draft HCP with the purpose of providing information on implementation of the required avoidance, minimization, and mitigation measures (i.e., AMMs and MMs), the effectiveness of these actions, as well as providing a foundation to make adjustments to these measures, as needed. Monitoring implementation of the Draft HCP would include two components: compliance monitoring and effectiveness monitoring. The Cooperative and other implementing entities would be required to implement the monitoring and adaptive management program to ensure that these measures are successful over time in achieving biological goals and objectives.

The conservation strategy in Chapter 5 of the Draft HCP would avoid, minimize, and mitigate for impacts to HCP species and their habitat that would occur as a result of covered activities and contribute to the recovery of these species (please refer to Sections 5.4 and 5.5 of the Draft HCP for more detail on the AMMs and MMs). Tables 5-2 and 5-5 of the Draft HCP identify the AMMs and MMs, respectively, that would avoid or reduce potentially significant impacts to HCP species and habitat. In addition, the implementation of AMMs and MMs that meet the biological goals and objectives of the Draft HCP (Tables 5-1 and 5-4 of the Draft HCP) would also avoid or reduce potentially significant impacts to HCP species and habitat. The protection, restoration, maintenance, and enhancement of HCP species and habitat in the Plan Area would mitigate the direct and indirect effects resulting from covered activities, as described above, and would further provide for the conservation of the species in the Plan Area. Therefore, implementation of the AMMs and MMs identified in the Draft HCP would reduce potentially significant impacts to HCP species and habitat to a less-than-significant level.

Although implementation of the Proposed Action would result in an increase in impacts to HCP species and habitat, the covered activities would be subject to general and species-specific AMMs and MMs that would further reduce adverse effects on HCP species compared to the No Action Alternative.

Table 4.4-6a. Impacts to HCP Plant Species by Activities and HMAs

Impact Mechanism	HCP Species Impacts (acres)			
	Sand Gilia	Yadon's Piperia	Monterey Spineflower	Seaside Bird's Beak
Potential/known species habitat (acres)	9,088.8	2,420.00	12,977.8	6,849.6
HCP Development Activities				
Development	1,296.67	199.10	3,124.7	454.6
Development in HMAs	269.2	4.5	418.4	149.3
<i>Subtotal</i>	1,565.87	203.60	3,543.1	603.9
Road corridors and infrastructure				
FORTAG Alignment	10.0		15.5	1.1
Marina Airport Expansion	0.5		28.3	
Inter-Garrison Road Widening	8.9		12.8	
MCWD	6.9	0.1	16.5	0.3
<i>Subtotal</i>	26.3	0.1	66.7	1.4
<i>Subtotal HCP development, road corridors and infrastructure</i>	1,592.2	203.7	3,616.2	605.3
<i>% impacted from HCP development, road corridors and infrastructure</i>	18%	8%	28%	9%
<i>Subtotal preserved within HMAs</i>	7,496.8	2,216.3	9,361.6	6,244.3
<i>% Preserved</i>	82%	92%	72%	91%

Table 4.4-6a. Impacts to HCP Plant Species by Activities and HMAs (continued)

Management Activities within HMAs	Road	Trail	Fuelbreak	Road	Trail	Fuelbreak	Road	Trail	Fuelbreak	Road	Trail	Fuelbreak
BLM FONM	17.80	11.86	160.16	6.63	4.4	59.71	21.36	14.24	192.26	17.49	11.66	157.38
State Parks	0.44	0.29					1.47	0.98				
UC FONR	2.21	6.64	5.53				2.32	6.97	5.81	0.34	1.03	0.86
East Garrison North	0.40	1.34	5.35				0.40	1.34	5.35			
East Garrison South	0.38	0.63	3.42				0.23	0.38	2.03	0.32	0.53	2.85
Habitat Corridor	0.08	0.41					0.42	2.11				
Travel Camp	0.06	0.04					0.08	0.05				
Oak Oval							0.20	1.02	1.83			
Parker Flats	0.30	0.99	2.68				0.72	2.40	6.48		0.01	0.03
Landfill	0.60	1.01					0.48	0.80				
Laguna Seca Wolf Hill	0.14									0.14		
Laguna Seca Lookout Ridge							0.01	0.01				
Salinas River Habitat Reserve							0.02	0.01				
Marina Airport Habitat Reserve	0.01	0.01	0.07				0.30	0.20	3.63			
Marina Northwest Corner	0.01	0.01		0.02	0.01							
Range 45 Reserve	0.62	0.41	5.56				0.62	0.41	5.56	0.47	0.31	4.24
Natural Area Expansion							0.05	1.96		0.05	1.96	
<i>Subtotal HCP Mgmt Activities</i>	23.0	23.7	182.8	6.65	4.4	59.7	28.7	32.9	2232.9	18.8	15.5	165.4
<i>Subtotal HCP Mgmt Activities</i>		229.5			70.8			284.5			199.7	
<i>Total Impacts</i>		1,821.6			274.5			3,900.7			805.0	
<i>Total Preserved</i>		7,267.3			2,145.5			9,077.1			6,044.6	
<i>% Preserved</i>		80%			89%			70%			88%	

Table 4.4-6b. Impacts to HCP Wildlife Species by Activities and HMAs

Impacts Mechanisms	HCP Species Impacts (acres)					
	Smith's Blue Butterfly	Western Snowy Plover	California Tiger Salamander		California Red- Legged Frog	
			<i>potential and occupied aquatic habitat</i>	<i>potential upland habitat</i>	<i>potential and occupied aquatic habitat</i>	<i>potential upland habitat</i>
Potential/known species habitat (combined acres)	110.16	71.03	89.36	19,598.43	89.36	16,361.80
HCP Development Activities						
Development	0.04	0.00	0.00	3,245.26	0.00	1,836.52
Development in HMAs	5.85	10.76	0.00	495.12	0.00	448.83
<i>Subtotal</i>	<i>5.89</i>	<i>10.76</i>	<i>0.00</i>	<i>3,740.38</i>	<i>0.00</i>	<i>2,285.35</i>
Road corridors and infrastructure						
FORTAG Alignment	0.00	0.00	0.00	13.78	0.00	7.71
Marina Airport Expansion	0.00	0.00	0.00	31.05	0.00	2.26
Inter-Garrison Road Widening	0.00	0.00	0.00	13.18	0.00	12.86
MCWD	0.28	0.00	0.00	26.97	0.00	25.67
<i>Subtotal</i>	<i>0.28</i>	<i>0.00</i>	<i>0.00</i>	<i>84.98</i>	<i>0.00</i>	<i>48.50</i>
<i>Subtotal HCP Development, Road corridors, and infrastructure</i>	<i>6.17</i>	<i>10.76</i>	<i>0.00</i>	<i>3,825.36</i>	<i>0.00</i>	<i>2,333.85</i>
<i>% impacted from HCP development, road corridors and infrastructure</i>	<i>6%</i>	<i>15%</i>	<i>0%</i>	<i>20%</i>	<i>0%</i>	<i>14%</i>
<i>Subtotal preserved within HMAs</i>	<i>103.99</i>	<i>60.27</i>	<i>89.36</i>	<i>15,773.07</i>	<i>89.36</i>	<i>14,027.95</i>
<i>% Preserved</i>	<i>94%</i>	<i>85%</i>	<i>100%</i>	<i>80%</i>	<i>100%</i>	<i>86%</i>
Management Activities within HMAs						
BLM FONM				435.27		403.54
State Parks	0.52	0.12				
UC FONR				13.50		0.53
East Garrison North				7.22		7.17
East Garrison South				9.58		9.58
Habitat Corridor				4.10		4.11
Travel Camp				0.40		0.40
Oak Oval				3.10		2.79
Parker Flats				14.76		14.76
Landfill				0.42		
Laguna Seca Wolf Hill				0.14		0.14
Laguna Seca Lookout Ridge				0.67		0.67
Salinas River Habitat Reserve				0.14		0.15
Marina Airport Habitat Reserve				4.27		
Marina Northwest Corner						
MPC Reserve				5.39		2.21
Natural Area Expansion				1.89		1.89
<i>Subtotal HMA Management Activities</i>	<i>0.52</i>	<i>0.12</i>	<i>0.00</i>	<i>500.87</i>	<i>0.00</i>	<i>447.95</i>
Total Impacts	6.69	10.88	0.00	4,326.23	0.00	2,781.80
Total Preserved	103.47	60.15	89.36	15,272.2	89.36	13,580.00
% Preserved	94%	85%	100%	78%	100%	83%

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact BIO-1b: Impacts to Non-HCP Special-Status Species and Habitat under the Draft HCP

As described in Section 3.4, *Biological Resources*, there are numerous special-status plant and wildlife species that are known or have the potential to occur within the Plan Area. In addition, migratory birds, raptors and their nests, and other avian species protected under CFG Code and the MBTA, are known or have the potential to occur in the Plan Area. These species are not proposed for coverage under the Draft HCP and may be impacted by covered activities. Some of these special-status species are also species addressed in the HMP, but are not proposed for coverage under the HCP and may be impacted by covered activities. This EIS/EIR qualitatively analyzes the potential impacts on non-HCP special-status species that may occur as a result of covered activities.

The direct and indirect impacts associated with the covered activities are described above in Section 4.4.1.1, *Approach to Impact Analysis*. HCP required AMMs and MMs have been developed to avoid and minimize impacts to HCP species and natural communities that may occur as a result of covered activities. Brief descriptions of the AMMs and MMs can be found in Table 5-1, *Relationship between Biological Goals and Objectives and AMMs*, and Table 5-4, *Relationship between Biological Goals and Objectives and MMs*, in Chapter 5, *Conservation Strategy*, of the Draft HCP. The text in Sections 5.4, *Measures to Avoid and Minimize Impacts*, and Section 5.5, *Measures to Mitigate Unavoidable Impacts*, in the Draft HCP provide more detailed descriptions of these AMMs and MMs.

Projects and activities under the Proposed Action Alternative, including development and habitat management activities, would be required to implement the AMMs and MMs. These AMMs and MMs could reduce adverse effects on special-status species not covered by the HCP by requiring actions such as siting and designing projects to minimize impacts on HCP species habitat, confining work areas, and buffers from sensitive natural communities. When HCP and non-HCP species habitat overlap, these AMMs could prevent adverse effects on special-status species not covered by the HCP. Each project would also be required to comply with CEQA, which would include measures to identify and avoid special-status species.

The conservation strategy under the Proposed Action Alternative does not include commitments or objectives to protect special-status species not covered by the HCP. However, there are specific goals and objectives for natural community types that provide potentially suitable habitat for these species. Overall, the Proposed Action Alternative would result in over 17,600 acres of various natural community types being protected and preserved under the conservation strategy. Where any suitable habitats for special-status species overlap with HCP species habitat in the reserve system, these species would also benefit from the connectivity that reduces effects of habitat fragmentation, as well as the same monitoring and adaptive management strategies as the rest of the reserve system.

As described above, although the HCP required actions that may result in take (i.e., revegetation, restoration, and enhancement; prescribed burning and alternative vegetative management; non-native invasive species control; erosion control; and monitoring) may result in temporary impacts, these actions are expected to have a net benefit on all HCP species and their habitat. These actions are expected to have similar impacts to non-HCP special-status species. Accordingly, these actions would also benefit non-HCP special-status plant and wildlife species and their habitat.

The Draft HCP also includes beach management and recreational and educational use as covered activities. As described above, beach management activities would be associated with public safety, and would be short-term and temporary. With the required implementation of AMMs and MMs, these activities are expected to have similar impacts to non-HCP special-status species. The impacts to non-HCP species would be minimal. Recreation and educational uses would include hiking, biking, equestrian use, and educational programs and training. While the recreation and educational activities may result in impacts to non-HCP species, including, but not limited to, trampling, temporary habitat degradation, and incidental capture, the AMMs and MMs in the Draft HCP would minimize these effects.

However, other operation and management activities (i.e., maintenance and management of roads, trails, and fuelbreaks) may require ground-disturbing activities that may result in direct and indirect adverse impacts to non-HCP special-status species. Ground disturbance associated with the maintenance of roads, trails, and fuelbreaks may result in potentially significant impacts to the following non-HCP special-status species: special-status bat species, Monterey dusky-footed woodrat, Monterey ornate shrew, American badger, special-status avian species (including species protected under CFG Code and MBTA), burrowing owl, Northern California legless lizard, coast horned lizard, western bumble bee, vernal pool bent grass, Hickman's onion, Hooker's manzanita, Toro manzanita, Pajaro manzanita, sandmat manzanita, pink Johnny-nip, Monterey ceanothus, Congdon's tarplant, Fort Ord spineflower, robust spineflower,⁶ Eastwood's goldenbush, coast wallflower, Yadon's wallflower,⁷ Kellogg's horkelia, Point Reyes horkelia, Contra Costa goldfields, legenere, Oregon meconella, marsh microseris, northern curly-leaved monardella, Choris' popcorn flower, Santa Cruz clover, and Pacific Grove clover.

Due to the specific habitat requirements and the required implementation of AMMs and MMs (e.g., security and access controls, signage, public outreach and education, etc.; please refer to Sections 5.4 and 5.5 of the Draft HCP), impacts to the following non-HCP special-status wildlife species are considered less-than-significant: California brown pelican, bank swallow,⁸ tricolored blackbird, Salinas harvest mouse, western pond turtle, Coast Range newt, and two-striped garter snake. These species would not be significantly impacted by the operation and management activities because these activities are not proposed in their required habitats.

Environmental impacts to non-HCP species and their habitat resulting from the construction and operation of future development activities under the Proposed Action would be evaluated on a project-by-project basis pursuant to NEPA and CEQA, as applicable, and potentially significant impacts would be identified and mitigated pursuant to the requirements of appropriate laws and regulations (please refer to Section 3.4.2, *Regulatory Framework*).

Although the implementation of the AMMs and MMs would avoid and minimize impacts on non-HCP special-status species under the Proposed Action Alternative, impacts to these species would remain potentially significant after implementation of AMMs and MMs, and additional mitigation is required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in impacts to non-HCP species and habitat. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** All are applicable.
- **Additional Mitigation:**

To reduce impacts to all non-HCP special-status species, implement the following mitigation measures:

Mitigation Measure BIO-1: Prior to the initiation of any road, trail, or fuelbreak maintenance activities that may adversely affect non-HCP special-status species (e.g., ground-disturbing activities, including vegetation and tree removal), the Cooperative or other Implementing Entity shall retain a qualified biologist to conduct an Environmental Employee Education Program for the personnel carrying out the activities. The biologist shall meet with the personnel at the site at the onset of the activities to educate the personnel on the following: 1) a review of

⁶ The only known occurrence of robust spineflower is located on the FODSP. It has not been observed since it was documented to occur, and there is the potential that the species was misidentified.

⁷ The only known occurrence of Yadon's wallflower is located on the FODSP as a result of deliberate plantings. According to State Park records, 492 individuals were planted in the winter of 2002/2003. Current population data was not available at the time of publishing.

⁸ There was a nesting colony of bank swallows on the beaches of FODSP documented in 2008 and 2009. However, they have not been observed since 2013.

the project boundaries including staging areas and access routes; 2) the special-status species that may be present, their habitat, and proper identification; 3) the specific avoidance and minimization measures that will be incorporated into the construction effort; 4) the general provisions and protections afforded by the USFWS and the CDFW; and 5) the proper procedures if a special-status animal is encountered within the project site.

Mitigation Measure BIO-2: The Cooperative or other Implementing Entity shall retain a qualified biological monitor to be on-site during initial ground-disturbing and vegetation removal activities associated with road, trail, or fuelbreak maintenance activities to protect any special-status species encountered. The qualified biological monitor shall identify and explain the protection methods during the Environmental Employee Education Program as described in Mitigation Measure BIO-1. These methods could include, but are not limited to, stopping work in the area where the animal is encountered until it has moved on its own outside of the site or moving individuals outside of the site to adjacent appropriate habitat. Handling individuals may require additional coordination with CDFW and/or the acquisitions of appropriate permits from CDFW.

To reduce impacts to special-status bat species, implement the following additional mitigation measure:

Mitigation Measure BIO-3: Within suitable habitat for special-status bat species and prior to ground-disturbing activities (including vegetation removal) associated with road, trail, or fuelbreak maintenance activities, the Cooperative or other Implementing Entity retain a qualified biologist to review the proposed activity and extent of disturbance to determine whether impacts to maternity and hibernation roosts of special-status bat species are likely to occur. If impacts are not likely to occur, no further mitigation is required.

If impacts are likely to occur, the following mitigation options are available:

- 1) Activities shall occur in September and October, after the breeding season and before the bat hibernation season, to avoid impacts to maternity and hibernation roosts; or
- 2) A qualified biologist shall conduct a survey to determine the presence of special-status bat species roosts. If no roosting bats are found during the survey, no further mitigation is required. If roosts are detected, a 50-foot buffer exclusion zone shall be established around occupied area until roosting activities have ceased.

To reduce impacts to Monterey dusky-footed woodrat, implement the following additional mitigation measure:

Mitigation Measure BIO-4: Within suitable habitat for the Monterey dusky-footed woodrat, the Cooperative or other Implementing Entity shall retain a qualified biologist to conduct surveys for Monterey dusky-footed woodrat not more than 30 days prior to the start of ground-disturbing activities (including vegetation removal). All Monterey dusky-footed woodrat nests shall be mapped and flagged for avoidance. Graphics depicting the location of all Monterey dusky-footed woodrat nests shall be provided to the Cooperative or other Implementing Entity. Any Monterey dusky-footed woodrat nests that cannot be avoided shall be relocated according to the following procedures.

- Each active nest shall be disturbed by the qualified biologist to the degree that Monterey dusky-footed woodrats leave the nest and seek refuge elsewhere. After the nests have been disturbed, the nest sticks shall be removed from the impact areas and placed outside of areas planned for impacts. Nests shall be dismantled during the non-breeding season (between October 1 and December 31), if possible. If a litter of young is found or suspected, nest material shall be replaced and the nest left alone for 2-3 weeks, after this time the nest will be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling.

To reduce impacts to American badger, implement the following additional mitigation measure:

Mitigation Measure BIO-5: Within suitable habitat for the American badger, the Cooperative or other Implementing Entity shall retain a qualified biologist to conduct focused pre-construction surveys for potential American badger dens no more than two weeks prior to the initiation of ground-disturbing activities (including vegetation removal) associated with road, trail, or fuelbreak maintenance activities. If no potential American badger dens are present, no further mitigation is required. If potential dens are observed, the following measures shall be required to avoid potentially significant impacts to the American badger:

- If the biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers from re-using them during construction.
- If the biologist determines that potential dens may be active, the entrances of the dens shall be blocked with soil, sticks, and debris for three to five days to discourage the use of these dens prior to ground disturbance. The den entrances shall be blocked to an incrementally greater degree over the three to five day period. After the biologist determines that badgers have stopped using active dens within the area potentially affected by the activity, the dens shall be hand-excavated with a shovel to prevent re-use during construction.

To reduce impacts to protected avian species, implement the following additional mitigation measure:

Mitigation Measure BIO-6: Road, trail, or fuelbreak maintenance activities that may directly (e.g., vegetation removal) or indirectly (e.g., noise/ground disturbance) affect protected nesting avian species will be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. Alternatively, a qualified biologist will be retained by the Cooperative or other Implementing Agency to conduct pre-construction surveys for nesting raptors and other protected avian species within 500 feet of proposed activities if the activity occurs between February 1 and September 15. Pre-construction surveys will be conducted no more than 14 days prior to the start of the activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August).

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist will notify the Cooperative or other Implementing Agency and an appropriate no-disturbance buffer will be imposed within which no activities or disturbance should take place (generally 500 feet in all directions for raptors; other avian species may have species-specific requirements) until the young-of-the-year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

To reduce impacts to burrowing owl, implement the following additional mitigation measure:

Mitigation Measure BIO-7: Within suitable habitat for burrowing owl, the Cooperative or other Implementing Entity shall retain a qualified biologist to conduct pre-construction surveys for burrowing owls in conformance with CDFW protocols, and no more than 30 days prior to the initiation of any ground-disturbing activities (including vegetation removal) associated with road, trail, or fuelbreak maintenance activities. If no burrowing owls are located during these surveys, no further mitigation is required. However, if breeding or resident owls are located on or immediately adjacent to the area potentially affected by the activity, the following mitigation measures shall be implemented:

- A 250-foot buffer, within which no new activity is permissible, shall be maintained between ground-disturbing activities and nesting burrowing owls. This protected area shall remain in effect until August 31 or, at the discretion of CDFW and based upon monitoring evidence, until the young owls are foraging independently. If construction will directly impact occupied burrows, eviction outside the nesting season may be permitted pending evaluation of eviction plans and receipt of formal written approval from the CDFW authorizing the eviction. No burrowing owls shall be evicted from burrows during the nesting season (February 1 through August 31).

To reduce impacts to special-status plant species, implement the following additional mitigation measure:

Mitigation Measure BIO-8: The Cooperative or other Implementing Entity shall retain a qualified botanist to document the presence or absence of non-HCP special-status plant species prior to the initiation of ground-disturbing activities (including vegetation removal) associated with road, trail, and fuelbreak maintenance activities. If non-HCP special-status plant species are not observed, no further mitigation is required. If non-HCP special-status plant species are observed, the activity shall be designed to avoid direct and indirect impacts to the population to the greatest extent feasible. Avoided populations within or adjacent to the activity area shall be protected by orange construction barrier fencing.

To reduce impacts to Monterey ornate shrew, implement the following additional mitigation measure:

Mitigation Measure BIO-9: In compliance with the HMP, surveys for Monterey ornate shrew shall be conducted in suitable habitat within the Habitat Corridor and Travel Camp HMAs. These surveys shall be included in the baseline surveys for these HMAs. If Monterey ornate shrews are found, the following management practices shall be incorporated into the resource management plan and implemented:

- preserve dead and downed wood for Monterey ornate shrews;
- wood collection for campfires shall not be permitted;
- wood for fires shall be provided at campground entrance; and
- if trees or snags must be cut down for public safety reasons in the Habitat Corridor HMA, the trunk shall be left on the ground as potential habitat for Monterey ornate shrew.

Impact BIO-2: Impacts to Riparian Habitat, Federally Protected Wetlands, or other Sensitive Natural Community.

Impact Mechanisms under the Draft HCP

The impact mechanisms to riparian habitat, federally protected wetlands, or other sensitive natural community would be the same as described under Impact BIO-1: Impacts to Special-Status Species and Habitat under the Draft HCP.

Impacts to Sensitive Natural Communities

Covered activity impact mechanisms may result in adverse impacts on sensitive natural communities. **Table 4.4-2, Summary of Natural Communities Impacts and Preservation under the Proposed Action Alternative**, quantifies the potential impacts to all natural communities within the Plan Area for all covered activities (i.e., Category 1 – development activities, and Category 2 – habitat management activities).

Environmental impacts to sensitive natural communities resulting from the construction and operation of future development activities under the Proposed Action would be evaluated on a project-by-project basis pursuant to NEPA and CEQA, as applicable, and potentially significant impacts would be identified and mitigated pursuant to the requirements of appropriate laws and regulations (please refer to Section 3.4.2, *Regulatory Framework*).

The direct and indirect impacts associated with the Category 2 – habitat management activities are described above in Section 4.4.1.1, *Approach to Impact Analysis* and under Impact BIO-1, *Category 2 – Habitat Management Activities*. HCP required AMMs and MMs have been developed to avoid and minimize impacts to HCP species and natural communities that may occur as a result of covered activities. Brief descriptions of the AMMs and MMs can be found in Table 5-1, *Relationship between Biological Goals and Objectives and AMMs*, and Table 5-4, *Relationship between Biological Goals and Objectives and MMs*, in Chapter 5, *Conservation Strategy*, of the Draft HCP. The text in Sections 5.4, *Measures to Avoid and Minimize Impacts*, and Section 5.5, *Measures to Mitigate Unavoidable Impacts*, in the Draft HCP provide more detailed descriptions of these AMMs and MMs.

As described above, although the Draft HCP required actions that may result in take (i.e., revegetation, restoration, and enhancement; prescribed burning and alternative vegetative management; non-native invasive species control; erosion control; and monitoring) may result in temporary impacts, these actions are expected to have a net benefit on all HCP species. These actions are expected to have equivalent potential impacts on the sensitive natural communities in the Plan Area. Accordingly, these actions would also have a net benefit on sensitive natural communities.

The Draft HCP also includes beach management and recreational and educational use as covered activities. As described above, beach management activities would be associated with public safety, and would be short-term and temporary. The impacts to sensitive natural communities would be minimal. Recreation and educational uses would include hiking, biking, equestrian use, and educational programs and training. While the recreation and educational activities may result in impacts to sensitive natural communities, including, but not limited to, soil compaction, temporary habitat degradation, and erosion. The AMMs and MMs in the Draft HCP would reduce these impacts to a less-than-significant level.

Other operations and management activities (i.e., maintenance of roads, trails, and fuelbreaks) may require ground-disturbing activities that may result in direct and indirect adverse impacts to sensitive natural communities. A conservative estimate was made for direct impacts that may result from implementation of habitat management activities (**Table 4.4-2**). Specifically, this EIS/EIR quantitatively analyzes the potential direct impacts on sensitive natural communities that may occur as a result of operations and management activities (i.e., road, trail, and fuelbreak maintenance activities). The impact analysis represents a worst-case scenario; it does not take into account AMM implementation (Section 5.4, *Measures to Avoid and Minimize Impacts*, in the Draft HCP), the nature of the impact (i.e., temporary, permanent), or indirect benefits. Therefore, impacts within HMAs may be less than indicated with AMM implementation.

Natural Communities

As described in Section 3.4, *Biological Resources*, there are several sensitive natural communities that are known or have the potential to occur within the Plan Area, including:

- Coastal strand and dune,
- Maritime chaparral,
- Riparian, and
- Wetlands and open water.

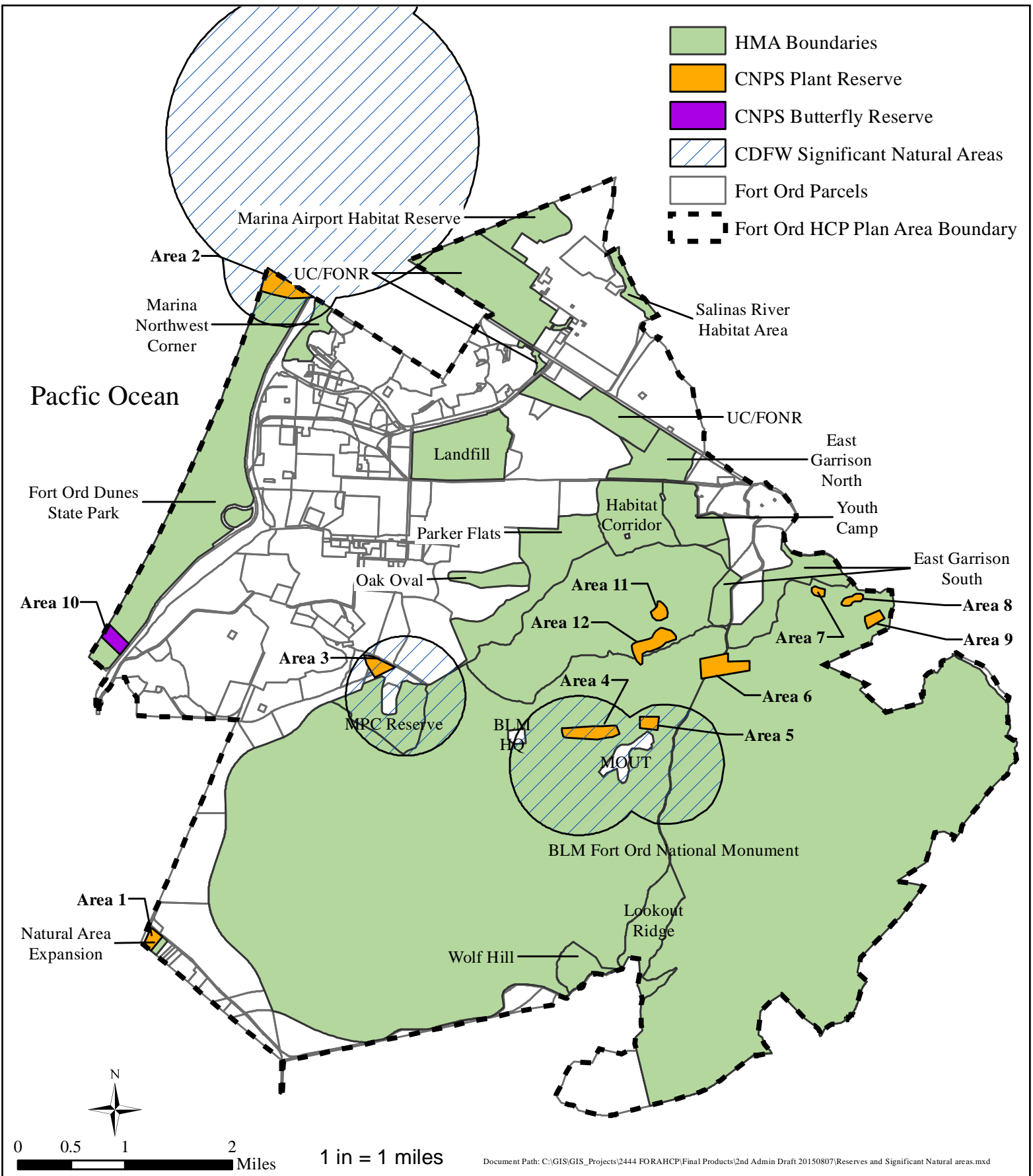
In addition, although not considered a sensitive habitat by CDFW, coast live oak trees and woodland is typically protected under local tree removal ordinances and impacts to this natural community are analyzed herein. Please refer to **Figure 3.4-1** for a general location of these sensitive natural communities within the Plan Area. **Table 4.4-3** identifies potential impacts to these communities that may result from Category 2 – habitat management requirements (i.e., road, trail, and fuelbreak maintenance activities). Implementation of Category 2 – habitat management requirements may result in impacts to approximately 4 acres of coastal strand and dune (<1%), 320 acres of maritime chaparral (3%), and 90 acres of coast live oak woodland and savanna (3%). No impacts to riparian or wetland and open water communities would result from these activities. These sensitive natural communities may overlap with designated critical habitat for western snowy plover and Monterey spineflower, as well as ESHA (please refer to discussions below). Coast live oak trees and oak woodland are protected under local tree ordinances and PRC 21083.4, which require mitigation for impacts to native oak trees. Therefore, road, trail, and fuelbreak maintenance activities may require tree removal permits and compliance with PRC 21083.4.

The Army EIS describes a number of reserves and significant natural areas, which have been designated as biologically important by Federal and State agencies and private organizations. Therefore, for the purposes of this analysis, these areas are considered sensitive habitats. These sites include CNPS native plant reserves, a Smith’s blue butterfly reserve, and CDFW significant natural areas (**Figure 4.4-1**). The Army, with assistance from the CNPS, has identified and agreed to protect 11 native plant reserves and one butterfly reserve (**Figure 4.4-1**). Under the agreement with CNPS, the Army affords protection to them as long as there is no overriding military need for the sites. Plant reserves 6, 7, 11, and 12 were included as mitigation sites in a November 1990 draft mitigation and monitoring plan for construction of the ammunition supply point on Barloy Canyon Road. As shown on **Figure 4.4-1**, the native plant reserves and butterfly reserve areas have been included in the HMAs, with the exception of Area 3 and a portion of a CDFW significant natural area. Road, trail, and fuelbreak maintenance activities may result in impacts to these reserves and significant natural areas within the HMAs.

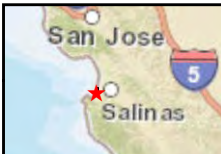
Designated Critical Habitat

Designated critical habitat for Monterey spineflower and western snowy plover also occur in the Plan Area, and are considered sensitive natural communities in this analysis (please refer to **Figures 3.4-2** and **3.4-3** for the locations of these critical habitat units). There are approximately 10,160 acres of designated critical habitat for the Monterey spineflower within the Plan Area.⁹ This represents approximately 92% of the total critical habitat designated for Monterey spineflower (11,055 acres). Approximately 650 acres of designated Monterey spineflower critical habitat may be impacted as a result of all covered activities (Table 4-10 of the Draft HCP). An estimated one acre occurs within designated development areas and 313 acres may be impacted as a result of allowable development within HMAs. An estimated 42 acres may be impacted by future road corridors and infrastructure, and 294 acres may be impacted by habitat operations and management activities. Under the Draft HCP, approximately 9,510 acres of designated Monterey spineflower critical habitat would be preserved

⁹ Please note that the Federal Register notice indicates the total critical habitat within Unit 8 Fort Ord is 9,432 acres. As stated in Chapter 1, the impact analysis uses GIS layers, which may differ slightly from other publications.



Source: Army Final EIS, 1993 - Figures 4.11-12 and 4.11-13



Title: **Reserves and Significant Natural Areas**
 File: Fig 4_4-1 Reserves and Significant Natural Areas.pdf

Date: 10/16/17
 Scale: 1 in = 1 mile
 Project: 2444



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Figure
4.4-1

(94%) within the Plan Area. The biological goal for all plant species, including Monterey spineflower, is to preserve and maintain or enhance the HCP plant species populations within the HMAs. In accordance with the conservation strategy, 250 acres of Monterey spineflower critical habitat would be targeted for restoration within the FODSP.

There are 174 acres of critical habitat for the western snowy plover within the Plan Area. This represents less than 1% of the total designated critical habitat for this species (24,527 acres). Implementation of the covered activities has the potential to impact approximately 22 acres of designated western snowy plover critical habitat, including 20 acres of allowable development within the HMAs and 1.5 acres from habitat operations and management activities (Table 4-12 of the Draft HCP). Under the Draft HCP, 88% of designated critical habitat for the snowy plover would be preserved. With campground and trail installation, the FODSP beach is expected to see an increase in annual visitors. Increased beach recreation could alter beach conditions and disturbance levels so that the habitat is no longer suitable for western snowy plover nesting and wintering. The biological goal for western snowy plover is to preserve and manage coastal strand and coastal dune areas as suitable habitat for western snowy plover. The HCP would preserve and maintain or enhance a minimum of 60 acres of western snowy plover habitat within the FODSP. The HCP would manage a four-mile stretch of ocean beach and associated bluffs and sandy blowouts as undeveloped beach frontage to benefit western snowy plover. To protect nesting and overwintering western snowy plovers, the HCP would address actual and potential adverse effects from introduced wildlife and other pests.

Environmentally Sensitive Habitat Areas

Sensitive natural communities also include those that are defined as ESHA under the CCA. Section 30107.5 of the CCA defines an “environmentally sensitive area” as any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. In the Plan Area, the FODSP HMA lies within the coastal zone. Therefore, future development activities may require CDPs from the CCC, and as part of the permitting process, ESHA may be identified by the CCC within the FODSP and activities may be required to avoid impacts to ESHA.

For the purposes of this analysis, due to the potential ground disturbance, there is the potential that road and trail maintenance activities within the FODSP may be considered development activities by the CCC and may require CDPs. Approximately four acres of coastal strand and dune (which also may contain designated critical habitat for the western snowy plover) may be impacted by road and trail maintenance activities and may be considered ESHA by the CCC. State Parks would be required by the CCA to obtain a CDP for these activities, if determined necessary, and would be required to implement permit conditions to avoid impacts to ESHA, if present. The implementation of the habitat management activities within the FODSP HMA would preserve and maintain or enhance over 99% of the coastal strand and dune communities and designated critical habitat for western snowy plover within the coastal zone, which may be considered ESHA by the CCC.

As discussed in Impact BIO-1, the conservation strategy of the Draft HCP is designed to achieve the biological goals and objectives for each sensitive and natural community and for the HCP species associated with those communities. The conservation strategy in Chapter 5 of the Draft HCP would avoid, minimize, and mitigate for impacts to sensitive natural communities that would occur as a result of covered activities and contribute to the preservation of these communities (see Sections 5.4 and 5.5 of the Draft HCP for more detail on the AMMs and MMs). The implementation of the habitat management activities within the HMAs would preserve and maintain or enhance over 98% of the sensitive natural communities within the HMAs. Tables 5-2 and 5-5 of the Draft HCP identified the AMMs and MMs, respectively, that would avoid or reduce potentially significant impacts to sensitive natural communities. In addition, the implementation of AMMs and MMs that meet the biological goals and objectives of the Draft HCP (Tables 5-1 and 5-4 of the Draft HCP) would also avoid or reduce potentially significant impacts to sensitive natural communities. The protection, restoration, maintenance, and enhancement of natural communities in the Plan Area would mitigate the direct and indirect effects resulting from covered activities, as described above, and would further provide for the preservation of sensitive natural communities in the Plan Area. Compliance with local tree ordinances and PRC 21083.4 would require avoidance of native oak trees, and where avoidance is not feasible, mitigation for impacts would be required, including replanting and/or replacement of impacted oak trees.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No additional mitigation is required.

Impact BIO-3: Potential to substantially interfere with the movement of native wildlife or impede the use of wildlife nurseries associated with the Draft HCP.

The April 1997 HMP established a habitat conservation area and corridor system, and parcel-specific land use categories and management requirements for all lands on former Fort Ord. The conservation areas were designed through the application of ecological concepts created by combining the distributions of the following resources:

- Sites supporting high or medium densities of known populations of sand gilia and Monterey spineflower;
- Sites supporting high and medium-quality habitat (as defined by the density of buckwheat) or known occurrences of Smith's blue butterfly;
- Sites supporting potential or known coastal nesting habitat for western snowy plover; and
- Study polygons supporting the highest richness of HMP species (seven or more species or suitable habitat occurrences).

The HMP's conservation program established land use categories and habitat management requirements for all lands on the former base. Developable lands and habitat reserve areas were defined along with habitat corridors and restricted development areas (**Figure 2-1**). Resource conservation and management requirements were described and responsible parties for each designated habitat area on the former base were identified.

The conservation program described in the 1997 HMP provides the basic framework for the conservation strategy of the Fort Ord Draft HCP (Chapter 5, *Conservation Strategy*, of the Draft HCP). The habitat reserve areas and habitat corridors are considered HMAs in the Draft HCP, as are the restricted development parcels. These habitat corridors allow for wildlife movement across the former Fort Ord. Therefore, habitat corridors would be preserved and managed under the Draft HCP.

The habitat corridors would be the same under the Proposed Action Alternative and No Action Alternative, as the HMP provides the foundation for the conservation strategy in the Draft HCP. However, the Draft HCP provides a more comprehensive conservation strategy. In addition, all covered activities would be subject to general and species-specific AMMs and MMs that would provide additional benefits to wildlife movement and nurseries under the Draft HCP.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, impacts are **less than significant**.

No additional mitigation is required.

Impact BIO-4: Potential to conflict with Federal, State, or local policies or ordinances protecting biological resources, including tree preservation and oak woodlands, as a result of implementation of the Draft HCP.

As described in the Section 3.4.2, *Regulatory Framework*, there are a number of Federal, State, and local regulations that may be applicable to the Draft HCP. The Draft HCP has been prepared in compliance with the Federal, State, and local environmental regulations (please refer to Chapter 6, *Consultation and Coordination*). Specifically, at a local level, the Cooperative or Implementing Entity would be required to comply with tree preservation policies or ordinances if operations and management activities would result in the removal of protected trees. Therefore, the implementation of the Draft HCP would not conflict with Federal, State, or local policies or ordinances protecting biological resources.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, impacts are **less than significant**.

No additional mitigation is required.

Impact BIO-5: Potential to conflict with adopted HCPs, NCCPs, or other approved local, regional, or State habitat conservation plan, including the approved Fort Ord HMP, as a result of implementation of the Draft HCP.

As described above in Impact BIO-4 and in more detail in Section 1.7, *Relationship of the Habitat Management Plan Conservation Program to this HCP*, of the Draft HCP, the Draft HCP has been prepared in compliance with the Fort Ord HMP. There are no other adopted or approved habitat conservation plans in the region. Therefore, the Draft HCP would not conflict with the approved Fort Ord HMP or other adopted habitat conservation plans in the region.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, impacts are **less than significant**.

No additional mitigation is required.

4.4.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to biological resources. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes future development activities and the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. Where the Reduced Take Alternative differs from the Proposed Action Alternative and No Action Alternative is the reduction of development activities within the HMAs and the subsequent reduction in habitat management activities.

Since the future development and habitat management activities would be generally similar as the Draft HCP, the level of impact would be the same as described in Impacts BIO-1 through BIO-5 when compared to the No Action Alternative, although slightly reduced for some impacts. **Table 4.4-7** provides a comparison of the impacts to biological resources, including quantifying the level of take for HCP species, under each alternative.

Therefore, for Impacts BIO-1a and BIO-2 through BIO-5:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Therefore, for Impact BIO-1b:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Table 4.4-7. Alternatives Comparison of Potential Impacts to Biological Resources

Biological Resource Impact	Acreage in Plan Area	Alternative 1: No Action ¹⁰ (impacts in acres)	Alternative 2: Proposed Action (impacts in acres) ¹¹	Alternative 3: Reduced Take Alternative (impacts in acres)
Impact BIO-1a: Impacts to HCP Species				
Sand gilia	9,088	514	1,822	1,549
Yadon's piperia	2,420	121	275	270
Monterey spineflower	12,978	1,009	3,901	3,410
Seaside bird's beak	6,849	301	805	655
Smith's blue butterfly	110	0.01	7	<1
Western snowy plover	71	0	11	<1
California tiger salamander	19,687 ¹²	1,246	4,327	3,746
California red-legged frog	16,451 ¹³	863	2,781	2,285
Impact BIO-1b: Impacts to Non-HCP Special-Status Species ¹⁴				
Special-status bat species	NA	LTSWM	LTSWM	LTSWM
Monterey dusky-footed woodrat	NA	LTSWM	LTSWM	LTSWM
American badger	NA	LTSWM	LTSWM	LTSWM
Protected avian species	NA	LTSWM	LTSWM	LTSWM
Burrowing owl	NA	LTSWM	LTSWM	LTSWM
Special-status plant species	NA	LTSWM	LTSWM	LTSWM
Monterey ornate shrew	NA	LTSWM	LTSWM	LTSWM
Others with potential to occur	NA	LTS	LTS	LTS
Impact BIO-2: Impacts to Sensitive Natural Communities¹⁵				
Coastal strand and dune	987	4	4	4
Maritime chaparral	12,349	320	320	320
Riparian	191	0	0	0
Wetlands and open water	127	0	0	0
Coast live oak woodland	4,736	90	90	90
Monterey spineflower critical habitat	10,160	650	650	294
Western snowy plover critical habitat	174	22	22	1.5
ESHA	NA	4	4	4
Impact BIO-3: Impacts to Wildlife Migration Corridors or Nurseries	NA	LTS	LTS	LTS
Impact BIO-4: Conflict with Federal, State, or Local Policies related to Biological Resources (e.g., tree ordinances)	NA	LTS	LTS	LTS
Impact BIO-5: Conflict with adopted HCP, NCCP, or Fort Ord HMP	NA	LTS	LTS	LTS
LEGEND: NA – Not available. LTSWM – Less than significant with mitigation. LTS – Less than significant; no mitigation required.				

¹⁰ As discussed in Alternative 1: No Action, impacts to biological resources are assumed the same or greater than the Proposed Action due to the lack of a comprehensive, coordinated regional conservation program. However, the increase cannot be quantified and is addressed qualitatively.

¹¹ Impacts from Categories 1 and 2 (Category 2 impacts within FONM only).

¹² Upland and aquatic habitat combined.

¹³ Upland and aquatic habitat combined.

¹⁴ Since quantities are not available for Impact BIO-1a, Non-HCP Special-Status Species, and Impacts BIO-3 through BIO-5, significance determinations are provided for comparison.

¹⁵ Critical habitat impact acreages include Categories 1 and 2; all other sensitive natural community impact acreages include Category 2 only.

Implementation of the Reduced Take Alternative may result in impacts to non-HCP species and habitat. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** All are applicable.
- **Additional Mitigation:** Implementation of Mitigation Measures BIO-1 through BIO-9 as identified for Impact BIO-1b.

4.4.2.4. Cumulative Effects

Development in the project area over the past century has resulted in an increase in the amount of land converted to residential, commercial, and other uses. This past and current conversion to development has reduced suitable habitat for many common and special-status species and increased the effects of habitat fragmentation, which can limit movement between suitable habitats for foraging, juvenile dispersal, and other ecological processes. The reasonably foreseeable future actions in the project area beyond those activities included under the No Action Alternative would include activities that would have similar impacts to biological resources as projects under the No Action Alternative. These development effects would continue with the implementation of the projects and activities under the No Action Alternative and the reasonably foreseeable future actions identified in Section 4.1.3.3. However, the Reuse Plan and local land use plans contain development within their respective growth boundaries, focusing development in existing developed areas.

The Plan Area also contains an existing network of habitat reserves under the HMP that preserve natural habitat in perpetuity, but without a permanent conservation easement. These lands provide habitat for many common and special-status species. Mitigation required for biological species impacts resulting from implementation of projects and activities under the No Action Alternative would include creation of protected mitigation lands that would add to these habitat preserves.

Although future development under the No Action Alternative would be subject to Federal and State regulations as well as policies in the applicable local plans, which contain policies to protect biological resources, when combined with past, present, and reasonably foreseeable future actions, the cumulative outcome would be a continued loss of habitat and adverse effects on biological resources.

When compared to the No Action Alternative and existing conditions, the Proposed Action Alternative and Reduced Take Alternative have the potential to significantly impact non-HCP special-status species. The implementation of Mitigation Measures BIO-1 through BIO-9 identified for each alternative above are required to reduce potential impacts to a less-than-significant level.

The Proposed Action Alternative and Reduce Take Alternative may contribute to a cumulatively significant impact to biological resources that may result from the reasonably foreseeable future actions identified in Section 4.1.4.3, *Reasonably Foreseeable Future Actions*. These projects would result in ground-disturbing activities and are, or would be, subject to the mitigation measures identified in project-specific CEQA review. The Proposed Action Alternative and Reduced Action Alternative may contribute slightly to this cumulative impact due to loss of biological resources during the implementation of habitat management activities; however, compared to the No Action Alternative, the Proposed Action Alternative and Reduced Take Alternative would result in the preservation of 17,600 acres and implementation of a comprehensive conservation strategy for the region. Therefore, the implementation of the Proposed Action Alternative and Reduced Take Alternative would result in a slightly reduced or similar cumulatively considerable contribution to the combined effects of past, present, and future projects to biological resources in the Plan Area.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

4.5. CLIMATE CHANGE

4.5.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively affect climate change. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

The following analysis is based on currently available information, including known information regarding the Draft HCP. This section has been prepared in accordance with applicable NEPA and CEQA Guidelines and guidance documents, including MBARD 2008 *CEQA Air Quality Guidelines*, CEQ 2014 *Revised Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (CEQ 2014 Draft Guidance), CEQ 2016 *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (CEQ 2016 Final Guidance), as well as applicable guidance documents developed by CARB.¹ The CEQ 2016 Final Guidance was withdrawn in 2017, and, therefore, this analysis relies on the CEQA 2014 Draft Guidance. CEQ 2014 Draft Guidance recommends that if an action is reasonably anticipated to cause direct emissions of 25,000 metric tons or more of CO₂e GHG emissions on an annual basis, then the agency should consider this as an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public. For long-term actions that have annual direct emissions of less than 25,000 metric tons of CO₂e, CEQ encourages Federal agencies to consider whether the action's long-term emissions should receive similar analysis. The following analysis qualitatively evaluates potential climate change effects associated with the implementation of the Proposed Action and alternatives; the Proposed Action and alternatives are not anticipated to generate 25,000 MT of CO₂e annually.

CEQA Guidelines Section 15064.4 provides guidance in evaluating and determining the significance of potential impacts from GHG emissions. CEQA further identifies that a lead agency has the discretion to determine, in the context of a particular project, whether to: 1) conduct a quantitative assessment of GHG emissions using a model or methodology (CEQA Guidelines Section 15064.4(a)(1)); or 2) rely on a qualitative analysis or performance-based standards (CEQA Guidelines Section 15064.4(a)(2)). CEQA Guidelines Section 15064.4(b) further states that a lead agency should consider a variety of factors when assessing the significance of impacts from GHG emissions on the environment. These factors include: 1) the extent to which the project may increase or reduce GHG emissions; 2) whether emissions would exceed a threshold of significance that applies to the project; and 3) the extent to which the project complies with the regulations or requirements adopted to implement statewide, regional, or local plans for the reduction or mitigation of GHG emissions.

GHG emissions are typically categorized as direct (e.g., emissions directly emitted from a source such as vehicle tailpipe emissions) and indirect (i.e., emissions that occur associated with energy consumption from a local utility). The Proposed Action and alternatives were evaluated in the context of the existing and planned development, land uses within the Plan Area, and emissions sources associated with them (e.g., stationary, mobile). Effects are identified where the actions or projects associated with the alternative would result in new or additional GHG emissions. Whether GHG emissions associated with individual development projects would contribute to substantial increases in GHGs is discussed qualitatively based on whether GHGs associated with those projects could conflict with a plan, policy, or regulations adopted to reduce GHG emissions.

There are multiple ways that the Proposed Action and alternatives could increase GHG emissions: by increasing regional vehicle miles traveled (VMT) and, thus, increasing mobile source CO₂; increasing other fossil fuel consumption, such as for energy production; and decreasing the amount of CO₂ sequestered in vegetation. Construction and operations could also result in the use of heavy-duty equipment, which would be a source of exhaust.

¹ Other applicable sources include: "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act," California Air Pollution Control Officers Association (CAPCOA) January 2008, and "Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act" (CARB, October 24, 2008).

Currently, there are no applicable Federal, State, or local thresholds of significance for GHG emissions. The CARB has been evaluating interim thresholds of significance. Draft thresholds were published in 2008. The recommended draft thresholds were based on project type (e.g., commercial, residential, and industrial) and thus the draft interim thresholds would not apply to the implementation of the HMP since potential temporary effects are primarily associated with habitat management and restoration-related activities; however, they would apply to individual development projects. The MBARD does not currently have adopted CEQA thresholds for GHG emissions. The U.S. EPA adopted a mandatory GHG reporting program for large GHG emission sources in 2009. All large GHG emitting sources that produce more than 25,000 metric tons or more of CO₂e per year must be reported under this program.² This indicator has been previously used to determine when it is appropriate to quantifiably evaluate potential GHG emissions associated with a project. However, the CEQ does not recommend a threshold of significance for the purposes of NEPA. CEQ 2014 Draft Guidance recommends that if an action is reasonably anticipated to cause direct emissions of 25,000 metric tons or more of CO₂e GHG emissions on an annual basis, then the agency should consider this as an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public. For long-term actions that have annual direct emissions of less than 25,000 metric tons of CO₂e, CEQ encourages Federal agencies to consider whether the action's long-term emissions should receive similar analysis.

The State of California, through AB 32, the Global Warming Solutions Act of 2006, has identified a statewide goal of reducing GHG emissions to 1990 levels by the year 2020. As discussed in Section 3.5, *Climate Change*, GHG emissions are global pollutants and, therefore, contribute to a global, not local or regional, issue. AB 52 states, in part, that "Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change is clearly a significant cumulative impact. However, the global increase in GHG emissions that has occurred and will occur in the future are the result of the actions and choices of individuals, businesses, local governments, states, and nations. Thus, the global climate change analysis is inherently cumulative and the analysis herein should be understood as an analysis of cumulative contributions to a significant global impacts. No single action or project would emit sufficient GHGs to result in a change in the Earth's climate. Therefore, direct and indirect emissions as a result of the Proposed Action and alternatives evaluated in this EIS/EIR would be a cumulative contribution to a global issue. For these reasons, the description of direct and indirect effects for each alternative reflects the alternative's contribution to cumulative impacts, and a separate cumulative impact discussion is not needed in this section.

The following analysis represents a qualitative assessment of potential climate change related impacts associated with the Proposed Action and alternatives in accordance with CEQA Guidelines Section 15064.4(a)(2). In addition, this section also evaluates potential climate change effects on the Proposed Action and alternatives consistent with the recommendations contained in CEQ's NEPA Guidance on the evaluation of GHG emissions.

4.5.1.1. Thresholds of Significance

There are currently no Federal (i.e., U.S. EPA), State, or local (i.e., MBARD) adopted or approved thresholds of significance for GHG emissions. The OPR proposed amendments to the CEQA Guidelines to include the evaluation of the effects of GHG emissions and associated mitigation measures under CEQA. These amendments became effective in March 2010 and provide general guidance on the evaluation of GHG emissions. The OPR's amendments do not establish quantifiable thresholds of significance. The establishment of quantifiable thresholds of significance under CEQA is the obligation of local agencies. The following thresholds contained below have been derived from Appendix G of the State

² The CEQ's *Revised Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* identifies that the 25,000 MT of direct CO₂e GHG emissions may provide agencies with a useful indicator for determining whether to qualitatively or quantitatively evaluate GHG emissions. CEQ recommends that actions that may exceed this standard should be quantitatively evaluated; CEQ does not, however, propose that this indicator be used for the purposes of determining significance. Evaluation of significance under NEPA is conducted by the action agency based on the categorization of actions in agency NEPA procedures and action-specific analysis of the context and intensity of environmental effects (40 CFR 1501.4, 1508.27). CEQ recommends that agencies quantifiably disclose the estimated annual direct and indirect GHG emissions associated with an action when the agency finds that the quantity of GHG emissions into the atmosphere by an action may be meaningful.

CEQA Guidelines, as modified for the purposes of this EIS/EIR.³ For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- Generate greenhouse gas emissions, either directly, indirectly, or cumulatively exceeding thresholds established by the U.S. EPA, State of California, or local Air Quality Control Board;
- Conflict with an applicable plan, policy, or regulation adopted for reducing the emissions of greenhouse gases; or
- Result in a substantial adverse environmental effect due to the effects of climate change.

4.5.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the Proposed Action and alternatives, as well as cumulative impacts. This section evaluates each of the alternatives and identifies mitigation measures where appropriate. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft Fort Ord HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.5.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The No Action Alternative assumes a reduced development footprint at a slower pace than development under the Reuse Plan. The Reuse Plan EIR and General Plan EIRs for the cities within the former Fort Ord did not include an analysis of GHG emissions or climate change. However, the 2007 Monterey County General Plan EIR included an analysis of GHG emissions and climate change (pp. 4.16-18 through 4.16-44), which included development under the Reuse Plan within unincorporated portions of the County,⁴ and determined the following:

- Development of the 2007 General Plan would contribute considerably to cumulative GHG emission and global climate change as the County in 2020 would have GHG emissions greater than 72% of business as usual conditions.
- Development allowed by the 2007 General Plan may subject property and persons to otherwise avoidable physical harm in light of inevitable climate change but is less than cumulatively considerable.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan. However, since the 2007 General Plan EIR only addressed unincorporated lands and the former Fort Ord includes unincorporated lands and other land use jurisdictions, this analysis assumes that GHG emissions and climate change impacts from construction and operational activities associated with future development under the No Action Alternative would be greater than those analyzed in the 2007 General Plan EIR.

Construction-related GHG emissions as a result of future development on approximately 5,504 acres over 50 years would contribute further to the already existing significant cumulative impacts to global climate change identified in the 2007 General Plan EIR. For the HMP-required habitat management activities, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs under the No Action Alternative. These activities would not result in significant GHG emissions. Habitat management activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development

³ CEQA Guidelines Section 15064.7(c) identifies that “When adopting thresholds of significance, a lead agency may consider thresholds of significance adopted by other public agencies and recommendations of others, provided such thresholds or recommendations are supported by substantial evidence, including expert opinion based on facts.”

⁴ The 2007 General Plan does not include unincorporated areas owned by the Federal government (e.g., FONM) or lands owned by the State government (e.g., CSUMB).

areas would be required. Habitat management activities associated with the any mitigation lands would vary. The specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the habitat areas or any mitigation lands are unknown at this time. However, the extent of earth movement is not anticipated to result in the continued and on-going use of heavy-duty, construction-related equipment or substantial worker commute trips and haul truck trips. Therefore, construction associated with habitat management activities under the No Action Alternative would not result in substantial GHG emissions and would not further contribute to the already existing significant cumulative impacts.

Operational-related emissions associated with development and habitat management activities, including prescribed burns as required by the HMP, would include mobile sources and stationary sources. Development projects would result in direct and indirect GHG emissions during operation (e.g., electricity usage, wastewater treatment, etc.). Infrastructure (e.g., roads) built under the No Action Alternative would continue to contribute to increases in mobile-source emissions of GHGs throughout the Plan Area. In addition, development activities within the 1,263 acres of vegetated development areas would result in the conversion of carbon-sequestering natural communities (e.g., coast live oak woodland, maritime chaparral, grasslands, etc.) to developed land, decreasing the total sequestering capacity of land in the Plan Area. These emissions could cause a considerable contribution to GHG and climate change. Further, these operational GHG emissions could conflict with an applicable, plan, policy, or regulation adopted to achieve local, regional, or statewide GHG reductions goals.

However, both construction and operational GHG emissions associated with development and habitat management activities would be reduced through implementation of GHG reduction policies and/or CAPs over the 50-year term. Also, individual projects reviewed at a project level under CEQA that would generate GHG emissions would be required to implement feasible reduction measures, as well comply and be consistent with all applicable plans, policies, and regulations. Therefore, development and habitat management activities under the No Action Alternative would not result in substantial GHG emissions or conflict with a plan, policy, or regulations adopted to reduce GHG emissions.

Under the No Action Alternative, development and habitat management activities would be exposed to various types of climate change effects, including changes in the range and distribution of species, sea-level rise, increased flooding, increase in the frequency and intensity of wildfire, changes in precipitation, and water quality effects associated with climate change could adversely affect the conservation of HMP species and habitats. These climate change effects could directly and indirectly affect the Plan Area and habitat reserve areas. The ability of habitat reserve areas to be resilient to these changing conditions depends on factors such as reserve size, connectivity to other reserve areas to support species movement, and buffers between reserve areas and adjacent development. The HMP establishes a large habitat conservation area and corridor system, and requires the implementation of measures to reduce impacts to habitat and species in habitat reserve areas adjacent to development. In the event that adverse effects from climate change were to occur in the habitat reserve areas, the size, connectivity, and buffers included as part of the HMP would offer resiliency to potential climate change effects.

4.5.2.2. Alternative 2: Proposed Action – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, GHG emissions as a result of these activities would increase from those described under the No Action Alternative.

Impact CC-1: Generate GHG emissions that would exceed applicable thresholds established by the U.S. EPA, State of California, or MBARD.

Currently, there are no applicable Federal, State, or local thresholds of significance for GHG emissions. The CARB has been evaluating interim thresholds of significance. Draft thresholds were published in 2008. The recommended draft

thresholds were based on project type (e.g., commercial, residential, and industrial). The draft interim thresholds would not apply to the implementation of the Draft HCP since potential temporary effects are primarily associated with habitat management and restoration-related activities. The MBARD does not currently have adopted CEQA thresholds for GHG emissions. The U.S. EPA adopted a mandatory GHG reporting program for large GHG emission sources in 2009. All large GHG emitting sources that produce more than 25,000 metric tons or more of CO₂e per year must be reported under this program.⁵ This indicator has been previously used to determine when it is appropriate to quantifiably evaluate potential GHG emissions associated with a project. However, the CEQ does not specifically identify this as a threshold of significance for the purposes of NEPA.

The construction activities associated with future development and habitat management activities under the Proposed Action would result in GHG emissions from the use of heavy-duty construction equipment and from construction vehicle exhaust. Because the Proposed Action includes more development and habitat management requirements than anticipated under the No Action Alternative, the sources and types of GHG emissions associated with construction of development would be greater than those described for the No Action Alternative.

However, the construction and operational GHG emissions associated with development activities would be reduced through implementation of GHG reduction policies and/or CAPs over the 50-year term. Also, individual projects reviewed at a project level under CEQA that would generate GHG emissions would be required to implement feasible reduction measures, as well comply and be consistent with all applicable plans, policies, and regulations. Therefore, development activities under the No Action Alternative would not result in substantial GHG emissions or conflict with a plan, policy, or regulations adopted to reduce GHG emissions.

The Draft HCP would result in GHG emissions from a variety of habitat management and operations and maintenance activities within the HMAs. These activities would be directly attributable to the implementation of the Draft HCP and would cause direct GHG emissions. According to the IPCC (IPCC, 2007), the emission of GHGs, which include water vapor (H₂O), CO₂, CH₄, N₂O, and O₃, are known to cause changes in the Earth's climate due to the greenhouse effect. Potential adverse effects associated with the emission of GHGs and associated climate change include changes in sea-level, increased frequency and intensity of flooding, water supply shortages, changes in the range and distribution of biological resources, increased occurrences of fires, and coastal flooding among others.

The Draft HCP would cause the emission of GHGs due to the temporary operation of construction equipment, ground-disturbing activities, and prescribed burns in connection with the proposed habitat management activities under the Draft HCP. These activities would cause temporary increases in emission of GHGs; however, these activities would not generate sufficient quantities of GHG emissions to warrant a quantitative analysis based on CEQ's 2014 Draft Guidelines. These effects would be temporary in nature and would be primarily associated with the operation of construction equipment and construction traffic for habitat management purposes. Moreover, the type of construction (mechanical vs. hand) will also significantly affect the extent of GHG emissions. Additionally, restoration and revegetation activities would result in long-term beneficial climate change impacts by providing carbon sequestration benefits. Negligible increases in GHG emissions would be associated with traffic generated in connection with the implementation of the Draft HCP.

Prescribed burns, which are not anticipated to occur until year 20 of Draft HCP implementation, would result in temporary increases in GHG emissions. The quantity of GHGs emissions associated with prescribed burns is unknown. GHG emissions related to the prescribed burn would be temporary in nature and would be offset by an increase in carbon sequestration associated with the re-vegetation of burned areas and other restoration-oriented activities. Leading scientific research has identified that prescribed burns have an important function in reducing forest carbon emissions in the U.S

⁵ The CEQ's *Revised Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* identifies that the 25,000 MT of direct CO₂e GHG emissions may provide agencies with a useful indicator for determining whether to qualitatively or quantitatively evaluate GHG emissions. CEQ recommends that actions that may exceed this standard should be quantitatively evaluated; CEQ does not, however, propose that this indicator be used for the purposes of determining significance. Evaluation of significance under NEPA is conducted by the action agency based on the categorization of actions in agency NEPA procedures and action-specific analysis of the context and intensity of environmental effects (40 CFR 1501.4, 1508.27). CEQ recommends that agencies quantifiably disclose the estimated annual direct and indirect GHG emissions associated with an action when the agency finds that the quantity of GHG emissions into the atmosphere by an action may be meaningful.

(Wiedinmyer et al., 2010).⁶ In addition, all prescribed burning would be required to comply with MBARD's Smoke Management Program.

The Draft HCP would directly result in temporary increases in GHG emissions associated with the implementation of habitat management efforts. Habitat management activities would result in direct emissions of greenhouse gases due in part to fuel combustion for construction equipment and prescribed burning. These increases in emissions would primarily be associated with habitat management activities necessary to achieve the biological objectives associated with the Draft HCP. These emissions would be minor in nature and would have a negligible impact in terms of GHG emissions. Moreover, proposed restoration activities would provide carbon sequestration in the form of new vegetation growth. As described previously, prescribed burns have been identified as serving an important function in the reduction of CO₂ emissions. Implementation of applicable Draft HCP Measures (e.g., AMMs and MMs) intended on reducing the frequency and extent of prescribed burns would further ensure this impact would be minimized to a less-than-significant level. Although there are currently no quantifiable thresholds of significance for the purposes of NEPA/CEQA, the Draft HCP would not result in a significant increase in GHG emissions such that it would cause or significantly worsen the effects of climate change on a local or regional scale.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

Impact CC-2: Conflict with a plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

There are no applicable Federal, regional, or local plans, policies, or regulations that have been adopted for the purpose of reducing and/or mitigating the emissions of GHGs. In absence of Federal, regional, or local policies related to the reduction of GHG emissions, the following considerations were used to evaluate whether the Draft Fort Ord HCP could conflict with State goals for reducing GHG emissions as set forth in AB 32:

- The consistency of the proposed Project with the CARB's Climate Change Scoping Plan's (CARB, 2008b) GHG Reduction Measures, and
- Conflict with State goal of reducing GHG emissions in California to 1990 levels by 2020, as set forth by AB 32, California Global Warming Solutions Act of 2006.

The Draft HCP would cause direct, albeit temporary, increases in GHG emissions associated with the implementation of habitat management activities. Temporary increases in GHG emissions are not anticipated to be cumulatively considerable; potential GHG emissions would be temporary in nature and are expected to be individually insignificant. For the purposes of this analysis, the primary concern is whether implementation of the Draft HCP would conflict with and/or otherwise obstruct State goals intended on reducing GHG emissions to 1990 levels by 2020, as required pursuant to AB 32.

The Draft HCP's temporary increases in GHG emissions would primarily occur in connection with the operation of construction equipment as part of on-going management activities within the HMAs, as well as direct GHG emissions in connection with prescribed burns. These emissions would occur in connection with the implementation of habitat management activities intended to improve habitat function and value for the identified species. These activities would generate a marginal amount of anthropogenic GHG emissions; these emissions would not represent a substantial increase in GHG emissions. Additionally, the majority of GHG emissions produced by prescribed burn would be CO₂. CO₂ emissions from prescribed burn and other biogenic sources are considered part of the natural carbon cycle and are often not included in emissions inventories (U.S. EPA 1996).

Potential GHG emissions directly attributable to proposed habitat management activities are not anticipated to conflict with the intent of AB 32 or the CARB's Climate Change Scoping Plan. Habitat management activities would include

⁶ Christine Wiedinmyer and Matthew D. Hurteau. Prescribed Fire As a Means of Reducing Forest Carbon Emissions in the Western United States. Environ. Sci. Technol., 2010; 44 (6): 1926-1932 DOI: 10.1021/es902455e.

restoration efforts throughout the Plan Area. These efforts would provide additional opportunities for carbon sequestration associated with the growth and development of new vegetative materials and restoration sites. Moreover, as described above, leading scientific research indicates that prescribed burns, while directly emitting GHG emissions during the initial burn period, can have positive impacts in terms of climate change by providing additional sources for carbon sinks and further goals in terms of carbon sequestration. As a result, the Draft HCP would not conflict with and/or otherwise obstruct applicable goals, policies, and objectives associated with the reduction of GHG emissions.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

Impact CC-3: GHG emissions and associated climate change may cause an adverse effect on the Proposed Action.

CEQ 2014 Draft Guidance on the evaluation of GHG emissions identifies that the lead agency should evaluate the potential effects of climate change on an action. This section contains a qualitative analysis on the potential adverse effects that climate change may have on the Draft HCP. Although the Draft HCP consists of the implementation of a number of habitat management activities within the HMAs, the following section specifically evaluates the potential adverse effects that climate change would have in terms of the success of the habitat management and restoration goals associated with the Draft HCP.

There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming. Some of the potential effects in California resulting from global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Globally, climate change has the potential to affect numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

In addition, there are many secondary effects projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great. The CEC estimated that in 2004, California produced 492 million gross metric tons of CO₂e GHG emissions (CEC, 2006). The CEC found that transportation is the source of 41 percent of the State's GHG emissions, followed by electricity generation at 22 percent and industrial sources at 21 percent.

Global climate change is expected to affect water resources in California overall and, in particular, areas that rely upon the Sierra Nevada snowfall and snow pack. Because the Plan Area is in an area that does not rely on this source of water, it would experience less of an impact due to this phenomenon. In addition, global climate change may influence many interconnected phenomena, which will in turn affect the rate of climate change itself. Besides effects on water supply for areas served by Sierra Nevada precipitation, the following are other global climate change issues that may adversely affect the Proposed Action:

- | | |
|---|--|
| ▪ Water supplies available in surface reservoirs; | ▪ Water demand; |
| ▪ Surface water quality; | ▪ Groundwater quality or recharge characteristics; |
| ▪ Fisheries and aquatic resources; | ▪ Sea level rise; |

- Flooding/flood control;
- Sudden temperature and other climatic changes.
- Changes in the range and distribution of species; and

The effects of climate change can and may have wide-ranging effects in terms of the Draft HCP. The potential climate change effects identified above may have a direct effect in terms of the success of the habitat management and restoration goals. For instance, the change in the range and distribution of species could reduce the ability of the Draft HCP to successfully accomplish species-specific restoration and habitat management objectives. The rise in sea level could reduce the extent of acreage in the FODSP HMA and would directly affect the Draft HCP's habitat goals in relation to that HMA. Other factors, such as reduced water supplies, would have less of an effect since the habitat management activities are intended to restore portions of the former Fort Ord to its natural ecological character. These activities are not anticipated to generate and/or rely on significant quantities of water. Changes in surface water quality could jeopardize the success of the Draft HCP by reducing the quality of aquatic resources and, thereby, habitat. All of these effects could potentially impair the Draft HCP's ability to achieve its biological and habitat management objectives.

As required for the issuance of the basewide ITPs, the Draft HCP includes a monitoring and adaptive management program to ensure that the conservation strategy is achieving the biological goals and objectives for HCP species and their habitats. Monitoring implementation of the Draft HCP includes two components: compliance monitoring and effectiveness monitoring. Information obtained from these monitoring actions can be used to adjust avoidance, minimization, and mitigation measure implementation, as appropriate, based on specific HCP management decisions that will need to be made to ensure the success of the Draft HCP adaptive management program. The monitoring and adaptive management program of the Draft HCP accounts for variability in climate and provides measures to ensure that the conservation strategy is achieving the biological goals and objectives. Implementation of the monitoring and adaptive management program would reduce potential impacts of climate change on the Draft HCP to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

4.5.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts associated with hazards and hazardous materials. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes future development activities and the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. Where the Reduced Take Alternative differs from the Proposed Action Alternative and No Action Alternative is the reduction of development activities within the HMAs and the subsequent reduction in habitat management activities. Since the future development and habitat management activities would be generally similar as the Draft HCP, the level of impact would be the same as described in Impacts CC-1 through CC-3 when compared to the No Action Alternative, although slightly reduced for some impacts.

Therefore, for Impacts CC-1 through CC-3:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.5.2.4. Cumulative Effects

Based on the global nature of GHG emissions, the global climate change analysis is inherently cumulative. GHG emissions resulting from implementation of all alternatives, including the No Action Alternative, would be cumulative contributions to a global issue.

As described above, the Proposed Action and Reduced Take Alternative would result in less-than-significant climate change impacts. The Proposed Action Alternative and Reduced Take Alternative may contribute to a cumulatively significant impact to GHG emissions and climate change impacts that may result from the reasonably foreseeable future actions identified in Section 4.1.4.3, *Reasonably Foreseeable Future Actions*. However, the construction and operational GHG emissions associated with development activities under these alternatives would be reduced through implementation of GHG reduction policies and/or CAPs over the 50-year term. Also, individual projects reviewed at a project level under CEQA that would generate GHG emissions would be required to implement feasible reduction measures, as well comply and be consistent with all applicable plans, policies, and regulations. Therefore, development under the Proposed Action Alternative and Reduced Take Alternative would not result in substantial GHG emissions or conflict with a plan, policy, or regulations adopted to reduce GHG emissions. Emissions resulting from implementation of habitat management activities under the Proposed Action Alternative and Reduced Take Alternative would be minor in nature and would have a negligible impact in terms of GHG emissions. Moreover, proposed restoration activities would provide carbon sequestration in the form of new vegetation growth. As described previously, prescribed burns have been identified as serving an important function in the reduction of CO₂ emissions. Implementation of applicable Draft HCP Measures (e.g., AMMs and MMs) intended on reducing the frequency and extent of prescribed burns would further ensure this impact would be minimized to a less-than-significant level. Although there are currently no quantifiable thresholds of significance for the purposes of NEPA/CEQA, the Proposed Action Alternative and Reduced Take Alternative would not result in a significant increase in GHG emissions such that it would cause or significantly worsen the effects of climate change on a local or regional scale.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.6. CULTURAL RESOURCES

4.6.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly or cumulatively affect cultural resources. As described below, direct impacts may occur due to ground disturbance associated with the activities analyzed in the alternatives. Indirect impacts to cultural resources are not anticipated from the activities analyzed in the alternatives.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Army's FEIS¹ previously evaluated the potential environmental effects associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The following qualitative analysis is based on currently available information, including known information regarding activities under the Proposed Action and alternatives, applicable NEPA and CEQA Guidelines and guidance documents, including Section 106 of the NHPA, as amended, and standard professional practice.

AB 52 established a formal consultation process for California tribes as part of the CEQA process and equates significant impacts on "tribal cultural resources" with significant environmental impacts (PRC Section 21084.2). AB 52 became law on January 1, 2015, and it only applies to projects that have a NOP or notice of Negative Declaration/Mitigated Negative Declaration filed on or after July 1, 2015. The NOP for this EIR/EIS was filed June 21, 2005, and, therefore, AB 52 does not apply to the Proposed Action. However, this EIS/EIR analyzes the project's impacts on "tribal cultural resources," in accordance with the updated Appendix G of the CEQA Guidelines, which was approved on September 27, 2016, in order to meet the legislative intent "that CEQA analyses must consider tribal cultural resources, including the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation." As described in Section 4.1, *Introduction*, future development activities under the Proposed Action and alternatives would be required to undergo separate environmental review and permit approval as part of the standard entitlements process, including compliance with AB 52.

4.6.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- disturb any human remains, including those interred outside of dedicated cemeteries; or
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k), or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

¹ A Programmatic Agreement was signed in April 1994 between the Army, the Advisory Council on Historic Preservation, and the SHPO regarding base closure and realignment actions for the former Fort Ord. The agreement constitutes historical resources consultation having occurred at this time, including Native American consultation.

4.6.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.6.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-196 through 4-199) determined the following:

- Potential impacts to known and potential archaeological resources, Native American cultural properties, and historically significant resources would be less than significant with the implementation of the identified policies and programs. Relevant policies and programs identified in the Reuse Plan EIR include: requirements that local jurisdictions protect known and newly discovered archaeological resources during development projects, protect Native American cultural properties and coordinate with Native American representatives, and protect historically significant resources.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to cultural resources from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Activities that could adversely directly affect archaeological, historical, tribal cultural, and paleontological resources and human remains would typically, although not exclusively, include ground-disturbing activities. Activities that could adversely affect built resources could result from a wide range of activities under the No Action Alternative (e.g., implementation of the Reuse Plan, local planning documents, and development projects). Based on prior implementation of these activities pursuant to the local processes and other regulatory standards (e.g., NHPA, AB 52, Section 106), it is expected that impacts to cultural resources would occur under the No Action Alternative. These impacts would be evaluated on a project-by-project basis pursuant to NEPA and CEQA, as applicable, and potentially significant impacts would be identified and mitigated pursuant to the requirements of appropriate laws and regulations (please refer to Section 3.6.2, *Regulatory Framework*).

For the HMP-required habitat management activities, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs under the No Action Alternative. However, habitat management activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas would be required, which may result in ground-disturbing activities and impacts to cultural resources. The specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the mitigation lands are unknown at this time. Habitat management activities that have the potential to impact cultural resources would also be required to comply with applicable Federal, State, and local regulations and policies, as well as any required mitigation in compliance with NEPA and CEQA.

4.6.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

Impact CR-1: Potential impacts on known or unknown cultural resources, unique paleontological resources or sites, unique geologic features, human remains, and tribal cultural resources.

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, impacts to cultural resources would increase from those described under the No Action Alternative.

For the purposes of this analysis, the Proposed Action would constitute a significant adverse environmental effect if it would impact known or unknown cultural resources (including tribal cultural resources), unique paleontological resources or sites, unique geologic features, or human remains. The former Fort Ord has been the subject of extensive cultural evaluations. Previous cultural resource evaluations of the former Fort Ord indicate relatively few resources of regional importance (Waite, 1995).

However, development activities and ground-disturbing activities in connection with habitat management activities within HMAs could potentially have direct impacts to unknown or buried cultural resources, unique paleontological resources or sites, unique geologic features, or human remains. Additionally, development and ground-disturbing activities in connection with habitat management activities within HMAs could potentially have direct impacts to known, unknown, or buried objects with cultural value to a California Native American tribe.

Future development activities would be subject to evaluation on project-by-project basis pursuant to NEPA and CEQA, as applicable, and potentially significant impacts would be identified and mitigated pursuant to the requirements of appropriate laws and regulations (please refer to Section 3.6.2, *Regulatory Framework*).

Revegetation, restoration, and enhancement activities are estimated to occur on approximately 795 to 900 acres within the HMAs over the 50-year permit term. Additionally, the estimated area of potential impact for road and trail maintenance is 113 acres and 442 acres for fuelbreak maintenance within the HMAs. These habitat management activities within HMAs are not generally expected to adversely affect the landscape, buried or unknown cultural resources, or human remains; however, these activities could result in ground disturbance and other earth moving activities, which could occasionally inadvertently affect buried or unknown cultural resources. The potential inadvertent discovery of cultural, paleontological, and tribal resources or human remains, as well as the potential of inadvertent damage or disturbance, during implementation of the habitat management requirements is a potentially significant direct impact. Under the Proposed Action Alternative, the habitat management activities would be more than required under the HMP, resulting in greater ground-disturbing impacts.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action Alternative may result in cultural resources impacts. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.

Mitigation:

Mitigation Measure CR-1: The Cooperative or other implementing entity will ensure that work is stopped if cultural materials or human remains are discovered during ground-disturbing activities. If archaeological deposits, such as chipped stone or groundstone, historic debris, or building foundations, are discovered during habitat management activities, all ground-disturbing activities will cease within 50 meters of the discovery. A qualified archaeologist will be notified immediately to assess the discovery.

If human remains of Native American origin are discovered during ground-disturbing activities, it will be necessary to comply with State laws regarding the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (PRC 5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

1. The County Coroner has been informed and has determined if an investigation of the cause of death is required; and
2. If the remains are of Native American origin:
 - a. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in PRC 5097.98; or
 - b. The Native American Heritage Commission was unable to identify a descendent or the descendent failed to make a recommendation within 48 hours after being notified by the commission.

4.6.2.3. Alternative 3: Reduced Take Alternative**Impact CR-1: Potential impacts on known or unknown cultural resources, unique paleontological resources or sites, unique geologic features, human remains, and tribal cultural resources.**

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to cultural resources. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to cultural resources associated with these activities. While there would no development activities within the HMAs (a reduction of approximately 883 acres), the Reduced Take Alternative would include the same development activities within the designated development areas, and, thus, result in an increase in ground-disturbing activities in these areas compared to the No Action Alternative (by approximately 3,788 acres). Even with a reduction in ground-disturbing activities in the HMAs, the Reduced Take Alternative would still require

implementation of habitat management activities that could result in potentially significant impacts to cultural resources, and, thus, require the same mitigation as the Proposed Action to reduce impacts to a less-than-significant level.

Therefore, for Impact CR-1 under the Reduced Take Alternative:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may result in impacts to cultural resources. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.

Mitigation:

- **Additional Mitigation:** Implementation of Mitigation Measure CR-1

4.6.2.4. Cumulative Effects

Expansion of development in the project area over the past century has resulted in the loss of cultural resources. The response to this loss includes the enactments of laws, regulations, and policies to protect cultural resources. Development activities would continue to occur consistent with the Reuse Plan and the applicable general plans of the affected land use jurisdictions and would be subject to regulatory requirements related to the protection of cultural resources.

The reasonably foreseeable future actions in the project area, beyond those activities included under the No Action Alternative, would include activities that would have similar impacts to cultural resources as projects under the No Action Alternative. These development effects would continue with the implementation of the projects and activities under the No Action Alternative and the reasonably foreseeable future actions identified in Section 4.1.3.3, *Reasonably Foreseeable Future Actions*. However, the Reuse Plan and local land use plans contain development within their respective growth boundaries, focusing development in existing developed areas.

Under the No Action Alternative, implementation of future development and habitat management activities could adversely affect cultural resources and human remains through ground-disturbing activities. However, regulations and policies would require avoidance of, or mitigation for, significant effects. Although the potential remains for individual projects to not be able to fully mitigate or avoid significant effects, these situations would be uncommon due to legal and consultation requirements. Therefore, activities under the No Action Alternative would not make a cumulatively considerable contribution to a significant cumulative impact related to cultural resources.

As described above, compared to the No Action Alternative, the Proposed Action and Reduced Take Alternatives have the potential to significantly impact cultural resources. The implementation of Mitigation Measure CR-1 is required to reduce potential impacts to a less-than-significant level. These alternatives may contribute to a cumulatively significant impact to cultural resources that may result from the reasonably foreseeable future actions identified in Section 4.1.4.3, *Reasonably Foreseeable Future Actions*. These projects would result in ground-disturbing activities and are, or would be, subject to the mitigation measures identified in project-specific CEQA review.

The Proposed Action and Reduced Take Alternatives may contribute slightly to this cumulative impact due to loss of cultural resources during the implementation of future development and habitat management activities. The contribution of the Proposed Action and Reduced Take Alternatives to the cumulative condition for cultural resources would slightly greater than the No Action Alternative due to the increase in ground-disturbing activities. However, there would be the same regulatory and policy requirements to identify, avoid, and mitigate for cultural resources. Because of these requirements, the implementation of the Proposed Action and Reduced Take Alternatives would not result in a

considerable adverse contribution to the combined effects of past, current, and probable future projects on cultural resources. These alternatives would make a similar contribution to cumulative impacts compared to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

4.7. ENERGY

4.7.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect energy. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The CEQA Guidelines require consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy use (PRC Section 21100[b][3]). However, neither the law nor CEQA Guidelines establish thresholds that define wasteful, inefficient, or unnecessary use. Therefore, this section includes a qualitative discussion of the potential for the Proposed Action and alternatives to result in the inefficient or wasteful consumption of energy.

4.7.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

4.7.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.7.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 5-14 through 5-15) determined the following:

- The proposed project would result in the irretrievable commitment of energy resources for increased electricity and gas demands and in the form of gasoline for construction vehicles.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, energy impacts from construction and operational activities associated with future development activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, construction and operational activities associated with future development activities could generate significant energy impacts, such as transport of materials to the site as well as use of petroleum-based fuels during construction, or operational impacts due to energy usage from maintenance activities at the site and increased vehicle trips. However, development activities would be subject to various energy-related laws and regulations, as

discussed in Section 3.7.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target energy usage. Development projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable energy standards would be required to incorporate feasible mitigation measures to reduce energy impacts.

Under the No Action Alternative, potential construction-related, temporary energy impacts associated with the implementation of habitat management activities under the HMP would be minimal due to the limited activities that could be implemented without ITPs (i.e., preservation, research, and some restoration activities). Potential construction-related, temporary energy impacts could result from the implementation of the habitat management activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas. Under the No Action Alternative, potential energy impacts due to operational habitat management activities required under the HMP (e.g., prescribed burns in FONM) or any additional mitigation lands (e.g., restoration, enhancement, and other related activities) could result in direct and indirect impacts to energy. Energy impacts may result from the transport of materials to the mitigation sites as well as use of petroleum-based fuels during the activities, or operational impacts due to energy usage from maintenance-related activities at the site and increased vehicle trips. However, habitat management activities would be subject to various energy-related laws and regulations, as discussed in Section 3.7.3, *Regulatory Setting*. These activities could also be subject to the applicable general plan policies that target energy usage. These regulations and policies are intended to guide projects so that they do not result in inefficient and wasteful consumption of energy.

4.7.2.2. Alternative 2: Proposed Action – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, energy impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact ENG-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Similar to the No Action Alternative, construction and operational activities associated with the implementation of the Proposed Action Alternative would require the use of energy. However, under the Proposed Action, there would be an increase in future development and habitat management activities, potentially resulting in greater energy impacts.

The Proposed Action Alternative would result in energy usage for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, excavation, and grading), and the temporary operation of construction equipment (of which a majority of equipment uses petroleum-based fuels) associated with construction of future development activities and ground-disturbing habitat management activities. Future use of facilities developed under the Proposed Action Alternative would result in indirect effects due to ongoing energy consumption in the forms of electricity and transportation energy (primarily motor vehicle fuels). However, development activities would be subject to various energy-related laws and regulations, as discussed in Section 3.7.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target energy usage. Development projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable energy standards would be required to incorporate feasible mitigation measures to reduce energy impacts. These regulations and policies are intended to guide projects so that they do not result in inefficient and wasteful consumption of energy.

Operational activities within HMAs would involve the direct use of energy associated with daily trips for maintenance and usage of maintenance equipment. However, these effects would be temporary in nature and would be primarily associated with the operation of construction and maintenance equipment as well as construction and maintenance traffic for habitat management purposes. Moreover, the type of construction (mechanical vs. hand) will also significantly affect the extent

of energy usage. Additionally, it can be assumed that the construction and maintenance schedule and process of these activities are designed to be efficient in order to avoid excess monetary costs and be in compliance with local and State regulations. That is, equipment and fuel are not typically used wastefully on the site because of the added expense associated with renting the equipment, maintaining it, and fueling it. In addition, operation of HMAs would involve the use of energy associated with daily trips for visitors (e.g., recreational users of the habitat areas). However, this increase in daily trips would result in negligible increases in energy usage. Further, MST currently provides regular transit service throughout Monterey County and in the general vicinity of the former Fort Ord and would conceivably continue doing so throughout the permit term. Also, there may be electrical and natural gas consumed in association with facilities related to the HMA areas.

Similar to the No Action Alternative, as with development activities, habitat management activities would be subject to various energy-related laws and regulations, as discussed in Section 3.7.3, *Regulatory Setting*. These activities could also be subject to the applicable general plan policies that target energy usage. These regulations and policies are intended to guide projects so that they do not result in inefficient and wasteful consumption of energy. Overall energy consumption for the implementation of habitat management activities would not be substantial and there are no unique or special circumstances that would result in a wasteful use of energy. The anticipated energy consumption would not require additional capacity or require new or expanded energy facilities. Therefore, while the energy use under the Proposed Action Alternative would be greater than the No Action Alternative, the Proposed Action Alternative would not result in a wasteful, inefficient, or unnecessary consumption of energy relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

Impact ENG-2: Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

As stated above in **Impact ENG-1**, the construction and operation of the Proposed Action Alternative would have a less-than-significant impact due to energy usage and efficiency compared to the No Action Alternative, and, thus, would not conflict with local or State plans for energy efficiency. Therefore, the implementation of the Proposed Action Alternative would result in a less-than-significant impact relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

4.7.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce energy impacts. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

Impact ENG-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce energy impacts associated with these activities. While there would no development activities within the HMAs (a reduction of approximately 883 acres), the Reduced Take Alternative would include the same development activities within the designated development areas, and, thus, result in an increase in energy use associated with the construction and operation of these areas compared to the No Action Alternative (by approximately 3,788 acres).

Even with a reduction in development activities within the HMAs, the Reduced Take Alternative would result in greater energy use compared to the No Action Alternative. Similar to the No Action Alternative, as with development activities, habitat management activities under this alternative would be subject to various energy-related laws and regulations, as discussed in Section 3.7.3, *Regulatory Setting*. These activities could also be subject to the applicable general plan policies that target energy usage. These regulations and policies are intended to guide projects so that they do not result in inefficient and wasteful consumption of energy. Therefore, while the energy use under the Reduced Take Alternative would be greater than the No Action Alternative, the Reduced Take Alternative would not result in a wasteful, inefficient, or unnecessary consumption of energy relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

Impact ENG-2: Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

As stated above in **Impact ENG-1**, the construction and operation of the Reduced Take Alternative would have a less-than-significant impact due to energy usage and efficiency compared to the No Action Alternative, and, thus, would not conflict with local or State plans for energy efficiency. Therefore, the implementation of the Reduced Take Alternative would result in a less-than-significant impact relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation would be required.

4.7.2.4. Cumulative Effects

Under the No Action Alternative, development in the project area over the past century has resulted in an increase in energy use. The response to the increased use of energy at a Federal, State, and local level includes the enactments of laws, regulations, and policies to lead to or require energy efficiency, result in the use or development of alternative energy sources, or otherwise reduce energy consumption.

Under the No Action Alternative, development activities would continue to occur consistent with the Reuse Plan and the applicable general plans of the affected land use jurisdictions, but within a reduced development footprint and at a slower pace. Development activities would be subject to various energy-related laws and regulations, as discussed in Section 3.7.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target energy usage. Development projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable energy standards would be required to incorporate feasible mitigation measures to reduce energy impacts.

The reasonably foreseeable future actions in the project area, beyond those activities included under the No Action Alternative, would include activities that would have similar impacts to energy use as projects under the No Action Alternative. These development effects would continue with the implementation of the projects and activities under the No Action Alternative and the reasonably foreseeable future actions identified in Section 4.1.3.3, *Reasonably Foreseeable Future Actions*. These projects would also be subject to the various energy-related laws and regulations.

As described above, the Proposed Action and Reduced Take Alternatives would result in less-than-significant energy impacts. While the energy use under the Proposed Action and Reduced Take Alternatives would be greater than the No Action Alternative, neither the Proposed Action nor Reduced Take Alternative would result in a wasteful, inefficient, or unnecessary consumption of energy relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.8. GEOLOGY AND SOILS

4.8.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects related to geology, soils, and seismicity associated with permit issuance and the approval and implementation of the Draft HCP, and evaluates the extent to which the Proposed Action and alternatives could expose people or structures to potential seismic, liquefaction, landslide, and expansive soil impacts, and the extent to which the action could result in substantial soil erosion or loss of topsoil. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

The following analysis evaluates the potential geologic hazards associated with the implementation of the Draft Fort Ord HCP and alternatives. As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's EIS previously evaluated the geologic issues associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. This analysis is based on currently available information, including known information regarding the Proposed Action and alternatives, as well as applicable NEPA and CEQA Guidelines and guidance documents, the Reuse Plan, and applicable General Plans.

4.8.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42);
 - ii. Strong seismic ground shaking;
 - iii. Seismic-related ground failure, including liquefaction; or
 - iv. Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.8.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.8.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. In addition, all

future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

The impact analysis presented in the Reuse Plan EIR (pp. 4-40 through 4-46) determined the following:

- Potential geology and soil impacts associated with erosion, landslips, sedimentation, and engineering limitations would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential geology and soils impacts from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Future development activities under the No Action Alternative could result in direct and indirect impacts by exposing people or structures to potential seismic, liquefaction, landslide, and expansive soil impacts, and could result in substantial soil erosion or loss of topsoil. Any facilities constructed that would require some form of building permit would be designed and constructed to meet relevant requirements of the CBC, as required by the State, city, and county building codes, and as set forth in the local agencies' general plans and other applicable planning documents. These building code requirements specify that detailed seismic investigations be completed for all public and private projects located within the boundaries of a designated Earthquake Fault Zone, and that such policies receive appropriate permit approvals. Site-specific geologic investigation and analysis by a licensed professional would be conducted in accordance with standard industry practices and State-provided guidance, and would minimize risk associated with seismic hazards. Geology and soils impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with applicable laws, regulations, and policies.

Projects constructed over the next 50 years in the Plan Area would result in additional people and structures being exposed to other existing geologic hazards, such as liquefaction, slope instability, soil settlement or compaction, and adverse soil conditions. However, similar to seismic risk, there are existing Federal, State, and local programs that are designed to provide accurate and timely information detailing hazards, impose regulatory requirements regarding geotechnical and soils investigations, provide limitations on the locations of structures for human habitation, impose requirements for hazard notices to potential users, and establish structural standards for buildings and grading projects. Potential impacts from geological hazards such as expansive soils or slope instability can be addressed through implementation of standard remedial measures and various established engineering measures.

Ground-disturbing activities associated with construction of development projects or related to habitat management activities may increase soil erosion rates. HMP-required habitat management activities would only include a subset or limited management activities (i.e., preservation, research, and some restoration activities) under the No Action Alternative, resulting in minimal ground disturbance. However, habitat management activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas may result in ground-disturbing activities and increase soil erosion rates. The specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the mitigation lands are unknown at this time. Activities such as excavation, trenching, grading, and compaction would result in vegetation removal and soil exposure, which would be exposed to rain and wind, potentially accelerating erosion. Compliance with applicable Federal, State, and local erosion-related regulations (e.g., Storm Water Pollution Prevention Plans that are developed for individual projects to comply with city and county codes), as well as any required mitigation in compliance with NEPA and CEQA, would substantially reduce the potential for construction activities to result in adverse erosion impacts.

4.8.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife

Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, geology and soils impacts would increase from those described under the No Action Alternative.

Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides.

The former Fort Ord is in a region with several active or potentially active faults and has the potential for moderate to high seismic activity. The Reliz, Ord Terrace, and Seaside Faults lie partly within the Plan Area. In addition, the Chupines Fault runs directly south of the former Fort Ord through the City of Seaside. However, the San Andreas Fault, located 17 miles northeast of the Plan Area, is the only fault in the region which has been known to be active in the past 200 years, and the former Fort Ord is not located within an Alquist-Priolo Earthquake Fault Zone. Unexpected ground rupture from a previously unmapped active fault is possible, but unlikely, due to the considerable mapping and fault research completed throughout the County of Monterey. Therefore, the potential for surface rupture within the Plan Area is low. However, due to the proximity of several faults, a major seismic event could cause severe ground-shaking in the Plan Area. Seismic activity could also result in geologic hazards such as landslides, liquefaction, lateral spreading, and tsunamis (please refer to Section 4.9, *Hazards and Hazardous Materials*, for a discussion of tsunamis). Most of the former Fort Ord has a low susceptibility to these hazards. However, liquefaction susceptibility is moderate within the coastal dunes on the western edge of the area, and is high within some lowland areas in the eastern portion of the area. In addition, some steep soils on the eastern portion of the former Fort Ord are moderately or highly susceptible to landslides. Development within or adjacent to these areas could cause potential adverse effects, including the risk of loss, injury, or death as a result of these geologic hazards.

Future development activities under the Proposed Action Alternative would occur within a larger footprint and at a faster pace compared to the No Action Alternative. However, similar to the No Action Alternative, any facilities constructed would require compliance with applicable Federal, State, and local regulations, as well as any required mitigation in compliance with NEPA and CEQA, which would substantially reduce the potential for substantial adverse effects associated with seismic activity. The implementation of the Draft HCP would not involve the placement of people or structures at risk from seismic events and other geologic hazards.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact GEO-2: Result in substantial soil erosion or the loss of topsoil.

Much of the former Fort Ord is moderately or highly susceptible to wind and water erosion. Wind erosion can affect the Arnold, Baywood, Dune land, and Oceano soils on the site if vegetation is removed and the ground surface is disturbed. In addition, the Arnold, Diablo, San Andreas, Santa Ynez, and Xerorthents soils on the site are highly susceptible to water erosion. Although some erosion occurs naturally on these soils, erosion is accelerated by disturbances such as road cuts and removal of trees that act as windbreaks. Erosion results in gullying, channel incisions, sedimentation in wetlands or stream channels down-slope from erosion sites, and, in some areas, landslides.

Development activities, such as grading, vegetation and tree removal, or road construction, could accelerate erosion in susceptible areas. However, all future development activities would be required to comply with all applicable Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs. Direct and indirect environmental impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with applicable laws, regulations, and policies to reduce risk of erosion or loss of topsoil.

The implementation of the Draft HCP could also directly and indirectly accelerate erosion by exposing topsoil during restoration and enhancement activities, prescribed burns, and other ground-disturbing activities. However, these activities would be subject to the AMMs and MMs required by the HCP, as identified below. Implementation of these AMMs and MMs would reduce the likelihood of substantial loss of topsoil or erosion. Therefore, the Proposed Action Alternative would result in less-than-significant erosion and topsoil impacts.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Several AMMs and MMs contained in the Draft HCP would significantly reduce erosion impacts associated with the Proposed Action. Applicable AMMs that would minimize the erosion potential associated with ground disturbance and prescribed burns include: AMM-24, relocated roads and trails away from riparian/wetland habitats where it is evidenced that erosion or other potential disturbances are resulting in significant damaging effects; AMM-42, develop and implement erosion control measures to prevent sediment transport into and within habitat areas; and AMM-47, cover areas susceptible to erosion following removal of non-native species with erosion control material.

Applicable MMs include: MM-30, identify priority sites and implement appropriate erosion control and site restoration methods; MM-31, control erosion, remove hardstand, reshape, stabilize, and restore existing degraded or destroyed sites associated with roads, gullies, or rills into naturally recurring habitat; MM-32, stabilize drifting sand on barren sand dunes where temporary erosion is necessary until native vegetation can become established; and MM-33, control erosion as necessary to prevent degradation of areas mapped as potential Yadon's piperia habitat.

- **Additional Mitigation:** None required.

Impact GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

As stated in **Impact GEO-1** above, the former Fort Ord may be subject to severe groundshaking; however, most of the site has a low susceptibility to landslides, liquefaction, or lateral spreading. In addition, the former Fort Ord is not located in an area of known subsidence due to groundwater extraction. For those areas that are moderately or highly susceptible to geologic hazards, a site-specific geotechnical investigation would be required, and individual projects would adhere to all geotechnical investigation recommendations to reduce risk of landslides, liquefaction, lateral spreading, or subsidence.

Potential unstable soil impacts as a result of development activities would be the greater compared to the No Action Alternative; however, a geotechnical investigation would be required prior to development projects in areas with unstable soils and high risk of ground failure. Direct and indirect environmental impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with site-specific geotechnical investigations and applicable laws, regulations, and policies to reduce risk of adverse effects from development on unstable soils. Implementation of the Draft HCP would not involve the placement of people or structures on unstable soils.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact GEO-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

The Natural Resources Conservation Service provides soil information for the former Fort Ord; however, soil data are generalized and do not include expansion potential, which can only be determined by site-specific geotechnical investigations. Implementation of the Proposed Action would result in new development in undeveloped areas, potentially within areas overlying expansive soils. As a result, more persons and structures could be exposed to geologic hazards associated with expansive soils, such as damage to new buildings, roads, and utilities as soils expand and contract. However, direct and indirect environmental impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with site-specific geotechnical investigations and applicable laws, regulations, and policies to reduce risk of adverse effects from development on expansive soils. Implementation of the Draft HCP would not involve the placement of people or structures on unstable soils.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.8.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts associated with geology and soils. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes future development activities and the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. Where the Reduced Take Alternative differs from the Proposed Action Alternative and No Action Alternative is the reduction of development activities within the HMAs and the subsequent reduction in habitat management activities. Since the future development and habitat management activities would be generally similar to those under the Draft HCP, the level of impact would be the same as described in Impacts GEO-1 through GEO-4 when compared to the No Action Alternative, although slightly reduced for some impacts.

Therefore, for Impacts GEO-1, GEO-2, and GEO-4:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

For Impact GEO-3:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impact GEO-3 under the Proposed Action Alternative

4.8.2.4. Cumulative Effects

Impacts related to geology and soils are generally site-specific rather than regional in nature. The geologic effects of multiple projects over large areas typically do not interact related to issues such as seismic risk or the presence of unstable soils. However, for issues such as erosion, projects in close proximity may combine cumulatively to create a larger downstream erosion impact than would occur from a single project.

Geology and soils in the Plan Area have been altered by historic Army activities and development. However, no particular cumulative interactions or cumulative changes related to seismic risk, landslide, erosion, unstable soils, or expansive soils have been identified in the Plan Area. Due to the extensive regulations, standards, codes, and policies related to these issues, as well as the limited ability for projects to interact on a cumulative basis, it is unlikely that projects or actions under the No Action Alternative or implementation of other foreseeable future project actions as identified in Section 4.1.4.3, *Reasonably Foreseeable Future Actions*, would contribute to a cumulative impacts associated with these issues.

As described above, potential geologic impacts from the Proposed Action Alternative and Reduced Take Alternative would be less than significant. Similar to the cumulative conditions of the No Action Alternative, the geologic effects of multiple projects over large areas typically do not interact related to issues such as seismic risk or the presence of unstable soils under the Proposed Action Alternative and Reduced Take Alternative. However, for issues such as erosion, projects in close proximity may combine cumulatively to create a larger downstream erosion impact than would occur from a single project. Under the Proposed Action Alternative and Reduced Take Alternative, potential erosion and topsoil impacts would be less than significant with implementation of the AMMs and MMs identified in Impact GEO-2, and with project-specific mitigation consistent with geotechnical investigations and applicable laws, regulations, and policies. Therefore, the Proposed Action Alternative and Reduced Take Alternative would not result in a significant cumulative impact related to geology and soils.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

4.9. HAZARDS AND HAZARDOUS MATERIALS

4.9.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft Fort Ord HCP and alternatives that may directly, indirectly, or cumulatively affect public health and safety due to the exposure to potential hazards or hazardous materials. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, development within the former Fort Ord has been previously analyzed in accordance with NEPA and CEQA. Volume 4 of the Reuse Plan and Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. In addition, the County, as well as each of the respective land use jurisdictions, have also evaluated the environmental effects associated with development within their respective boundaries, as required under CEQA. The following analysis is based on currently available information, including known information regarding the proposed habitat management activities, as well as applicable NEPA and CEQA Guidelines and guidance documents.

4.9.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- for a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- impair the implementation of or physically interfere with an adopted emergency response plan;
- expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands; or
- potentially create an undue risk of death and/or injury to property and/or persons due to deliberate and/or accidental exposure to military munitions.

4.9.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.9.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. In addition, all

future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

The impact analysis presented in the Reuse Plan EIR (pp. 4-74 through 4-88) determined the following:

- exposure to hazardous and toxic materials, including long-term exposure to unexploded ordinance, would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential exposure to hazards and hazardous materials from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, development activities within the Plan Area would occur consistent with the Reuse Plan and local planning documents, but within a reduced footprint and at a slower pace. Planned development would temporarily increase the regional transport, use, storage, and disposal of hazardous materials and petroleum products (such as diesel fuel, lubricants, paints and solvents, and cement products) that are commonly used at construction sites. In addition, because of the presence of documented contamination sites, historical land use within the Plan Area, and the presence of major roadways, previously unknown hazardous materials could be encountered during construction, including military munitions. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers, and cement products. Although the transportation of hazardous materials could result in accidental spills, leaks, toxic releases, fire, or explosion, there are strict regulations in place for the safe transportation of hazardous materials as described in Title 49 of the CFR. These standard accident and hazardous materials recovery training and procedures are enforced by the State and followed by private State-licensed, certified, and bonded transportation companies and contractors.

The No Action Alternative may result in the temporary transport, use, and/or disposal of a hazardous material in connection with habitat management activities, including fuel, pesticides, herbicides, and other potentially hazardous materials. The registration, sale and use of potential hazardous materials would be required to comply with all applicable Federal, State, and local regulations pertaining to the use, handling, and disposal of such material. In addition to regulations, State Parks has policies that further direct the use of herbicides on State Park lands (i.e., FODSP HMA). These regulations focus on the legal, safe, and effective use of herbicides and compliance ensures that staff evaluates all plant management options, prepare proper documentation, monitor the effects of herbicide use, and minimize adverse effects to human health and the environment. State Park policy dictates that programs to manage exotic species will be designed to avoid causing significant damage to native species, natural ecological communities, natural ecological processes, cultural resources, and human health and safety. Objectives of State Park's pest control program include:

- When chemical treatment is the only effective method, use chemicals (i.e., formulations, applications, or by-products) which: 1) are target specific; 2) do not persist in the environment; 3) do not damage resources; or 4) are least hazardous for humans to handle.
- Comply with all Federal, State, and county laws, regulations, and ordinances.

Prior to applying herbicides on State Park lands, employees receive annual training in the safe handling of that pesticide as well as environmental concerns with pesticide application. Environmental concerns include avoiding impacts to non-target species, including special-status species. At FODSP, the following management practices are used to avoid and minimize impacts to native species and ecosystems, including listed species:

- When herbicide use is necessary, employ the least hazardous material, most precise application technique, and minimum quantity of herbicide necessary to achieve control.
- All applications are conducted in strict accordance with herbicide labels.
- Herbicides are not mixed or stored in non-developed habitat areas.
- Herbicides are not applied to the point of run-off.
- Overspray and drift is avoided. Reduce drift by lowering height of spray nozzle, reducing application pressure, and adjusting nozzles to produce larger droplets.

- Wind speed, temperature, and humidity all affect spray movement. Monitor weather conditions, and do not spray when wind speed is 10 mph or greater.
- Sensitive areas are considered before pest control operations are conducted. Herbicide free-buffers of 5 feet are kept around coast and dune buckwheat, sand gilia, and Monterey spineflower. During the Smith's blue butterfly flight season, the herbicide-free buffer around buckwheat plants is increased to 50 feet.

In addition, prescribed burns would occur under this alternative within the FONM, and may result in the use of foams and other fire retardants, if necessary, for fire suppression purposes; these materials could result in the exposure of persons and/or the environment to hazardous materials. No hazardous materials are proposed to be disposed of within the Plan Area. All activities would be required to comply with all applicable Federal, State, and local requirements pertaining to the use, handling, and treatment of such material.

The most likely incidents involving construction-related hazardous materials are generally associated with minor spills or drips. Small fuel or oil spills are likely, but would have a negligible impact on public health. All hazardous materials would be stored, handled, and disposed of according to the manufacturers' recommendations and any spills would be cleaned up in accordance with existing regulations. All hazardous spills or releases, including petroleum products, regardless of quantity spilled must be immediately reported if the spill has entered or threatens to enter a water of the State, including a stream, wetland, lake, or storm drain, or has caused injury to a person or threatens injury to public health. For non-petroleum products, additional reporting may be required if the release exceeds Federal reportable quantity thresholds over a release period of 24 hours, as detailed in Section 25359.4 of the California Health and Safety Code and Title 40, Section 302.4 of the CFR. In addition, as described in Section 4.10, *Hydrology and Water Quality*, a stormwater pollution prevention plan would incorporate BMPs for the transport, storage, use, and disposal of hazardous materials to prevent the release of hazardous materials into the environment.

Operation of the development projects could also involve the use of hazardous materials or petroleum products. Commercial uses in the Plan Area would prepare and implement hazardous materials plans to avoid occurrences, and minimize the effects of hazardous materials spills and releases.

The Marina Municipal Airport (formerly named Fritzsche Army Airfield) is located within the Plan Area, north of Reservation Road adjacent to the FONR, Marina Airport, and Salinas River HMAs. It is also located within two miles of the East Garrison North, East Garrison South, Landfill, Habitat Corridor/Travel Camp, and FONM HMAs. The Monterey Regional Airport is located outside the Plan Area southwest of the NAE and FONM HMAs, but within two miles of the Plan Area boundary. The Monterey Regional Airport includes a private airstrip. Under the No Action Alternative, development is anticipated at the Marina Municipal Airport within the Plan Area and Monterey Regional Airport adjacent to the Plan Area. City and county zoning and planning are required to conform to the airport's CLUP unless the city or county governing body specifically overrides the CLUP by supermajority vote. Implementing agencies are responsible for analyzing compliance with CLUPs as part of their land use authority. Discretionary land use actions in proximity of airports and related facilities would be reviewed for consistency with the CLUP.

Development projects and related activities that would occur under the No Action Alternative would be consistent with local planning documents, but within a reduced footprint and at a slower pace. This is anticipated to reduce the potential for projects to interfere with adopted emergency plans. Further, the amount and location of development would be consistent with the projections used to establish applicable emergency response and emergency evacuation plans, which would facilitate plan implementation. Development would be required to comply with adopted emergency response plans. It is anticipated that environmental and planning reviews conducted for development projects under the No Action Alternative would require evaluation of potential hazards and land suitability, as well as the potential for emergency response plans to be impaired. These procedures would prevent construction of structures that would be hazardous to people working or residing in the area. The threat of wildfires from development of areas within CAL FIRE's responsibility is addressed through compliance with Title 14 of the CCR, which sets for the minimum development standards for emergency access, fuel modification, setback signage, and water supply to reduce damage to structures or people by reducing wildfire hazards. Standard construction mitigation includes notification of emergency responders where road closures are required.

As part of past military training operations, military munitions were used throughout the former Fort Ord. While military munitions were primarily utilized in the impact areas of the inland areas, munitions may be located elsewhere within the former Fort Ord. As a result, the implementation of the No Action Alternative could result in the exposure of the public (i.e., land managers and associated personnel, recreational users, etc.) to potential hazards associated with the former use of military munitions on Fort Ord. For the purposes of this analysis, this would represent a significant adverse impact if the public would be exposed to additional hazards related to military munitions beyond levels previously evaluated.

Military munitions were used throughout the former Fort Ord. As a result, implementation of the No Action Alternative has the potential to result in munitions-related hazards. The extent of this hazard is site-specific; the scale and intensity of munitions use ranged on the former Fort Ord. As a result, some areas, particularly the former inland range areas, are subject to increased munitions hazards. The Army is actively investigating and removing military munitions from areas historically used for training purposes, as part of site remediation activities. Munitions clearance activities have been ongoing and are implemented prior to the transfer of property to local land use jurisdictions. Nevertheless, residual munitions hazards may still be present throughout the former Fort Ord. As a result, all property transfers are subject to detailed deed restrictions and restrictive covenants to ensure appropriate measures are implemented to minimize the extent of public hazards associated with the exposure to military munitions. While implementation of the No Action Alternative would not result in the exposure of the public or construction personnel to new hazardous conditions beyond those previously identified as part of the base reuse process, the general public and habitat management personnel could still be exposed to potential munitions hazards.

The former Fort Ord is located in a seismically active region and, therefore, may be exposed to seismically induced hazards, including inundation by seiche or tsunami. The extent of inundation from either a tsunami or seiche depends on the location, strength, and sense of motion of the earthquake. For the purposes of this analysis, a significant adverse effect would occur if new structures and/or facilities would be exposed to additional inundation hazards due to implementation of the proposed habitat management activities. A substantial adverse effect would occur if persons and/or structures would be exposed to disproportionate inundation hazards beyond existing or planned levels.

Potential tsunami related hazards are isolated to the coastal margins of the former Fort Ord; these areas are mapped as a tsunami inundation area according to the California Geological Survey. Moreover, potential impacts due to inundation by seiche are also considered low. Potential seiche hazards are limited to those areas within proximity to an aquatic resource (e.g. pond, river, etc.). The potential hazards associated with seiche, tsunami, and/or mudflow are dependent upon site-specific factors such as proximity to an aquatic resource and known faults, among other factors. Under the No Action Alternative, minimal development is proposed within the coastal areas of the former Fort Ord (i.e., within the FODSP). As a result, the extent of these hazards is not significant.

4.9.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, potential hazards and hazardous materials impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact HAZ-1: Create a significant hazard through the routine transport, use, or disposal of hazardous materials.

The Proposed Action Alternative includes an increase in development-related activities to those identified for the No Action Alternative, with the HCP providing a mechanism for the Wildlife Agencies to provide incidental take authorization for these lawfully undertaken covered activities. Potential exposure to hazards and hazardous materials as a result of these development-related activities would be the greater than those described under the No Action Alternative. For the purposes of the following analysis, a significant public hazard would occur if the implementation of the proposed

habitat management activities would result in the routine use, transport, or disposal of a hazardous material such that it would disproportionately expose the public to a sustained hazard. This would include the use, transport, and disposal of chemicals, toxic materials, herbicides, pesticides, and other known carcinogens in the project area. Sustained exposure to hazardous materials may cause adverse human health effects and may adversely affect the environment. The following evaluates the potential environmental effects associated with the implementation of the Proposed Action in regard to potential hazardous materials use.

Planned development would temporarily increase the regional transport, use, storage, and disposal of hazardous materials and petroleum products (such as diesel fuel, lubricants, paints and solvents, and cement products) that are commonly used at construction sites. In addition, because of the presence of documented contamination sites, historical land use within the Plan Area, and the presence of major roadways, previously unknown hazardous materials could be encountered during construction, including military munitions. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers, and cement products. Although the transportation of hazardous materials could result in accidental spills, leaks, toxic releases, fire, or explosion, there are strict regulations in place for the safe transportation of hazardous materials as described in Title 49 of the CFR. These standard accident and hazardous materials recovery training and procedures are enforced by the State and followed by private State-licensed, certified, and bonded transportation companies and contractors.

Implementation of the Draft HCP may result in the temporary transport, use, and/or disposal of a hazardous material in connection with habitat management activities, which would be greater than under the No Action Alternative. Habitat management activities may require the temporary use, transport, and/or disposal of fuel, herbicides, pesticides, and other potentially hazardous materials. In addition, future prescribed burns may result in the use of foams and other fire retardants, if necessary, for fire suppression purposes; these materials could result in the exposure of persons and/or the environment to hazardous materials. Furthermore, prescribed burning and alternative vegetative management could also result in the exposure of persons and/or structures to additional hazards associated with the release of chemicals and other public safety hazards; these potential effects are addressed elsewhere in this EIS/EIR (please refer below; please refer also Section 4.3, *Air Quality*, and Section 4.13, *Public Services*). No hazardous materials are proposed to be disposed of within the Plan Area under the Proposed Action Alternative.

Although temporary in nature, the routine use and transport of hazardous materials may result in exposure of persons and/or the environment to a hazardous substance. This is a potentially significant impact. Implementation of Mitigation Measures HAZ-1 and HAZ-2 identified below would ensure that adequate measures are in place during the implementation of habitat management activities to avoid and/or minimize potential adverse effects to the environment due to the use of hazardous materials.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may involve the routine use and transport of hazardous materials, which may result in exposure of persons and/or the environment to a hazardous substance. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** A number of AMMs and MMs contained in the Draft HCP would significantly reduce the extent of hazardous materials effects that may result from implementation of habitat management activities. Applicable AMMs include: AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; AMM-26, implement construction BMPs; AMM-38, limit herbicide and pesticide use and apply in accordance with AMMs identified for non-native species control; AMM-44, develop and implement fire and alternative vegetative management plan that describes best management practices and AMMs; AMM-45, minimize use of chemical herbicides for controlling non-native invasive plant species; and AMM-46, provide an overview of sensitive species and non-native invasive species control protocols to all individuals involved in weed removal activities.

Applicable MMs include: MM-3, prepare HMA-specific resource management plans that include developing specific protocols for fire and alternative vegetative management, erosion control, and road and trail maintenance; MM-10, treat and/or hand remove ice plant mats and other dominant non-native plants at restoration sites; MM-25, alternative vegetation management activities are used in lieu of prescribed burns; MM-29, develop and implement annual strategies for eradication of noxious weed species; MM-35, initiating a pilot program to test methods to remove non-native grasses; and MM-36, evaluate a range of actions to support healthy habitats.

▪ **Additional Mitigation:**

Mitigation Measure HAZ-1: Prior to commencement of habitat management activities involving the use of heavy equipment and/or use of a hazardous material (e.g., fuel storage), the Cooperative and/or Implementing Entity (e.g., project contractor, sub-consultant, etc.) shall prepare a Hazardous Materials Spill Response Plan, which details the protocol to follow in the event that a hazardous material is released into the environment. Applicable protocol shall include spill prevention and clean-up measures, notification information, delineation of areas for temporary storage of hazardous material, as well as other pertinent information. This plan shall be maintained on the project site, and all personnel working on the project site shall be notified of its location.

Mitigation Measure HAZ-2: If, during the course of a prescribed burn, fire retardants or other chemicals are used for fire suppression purposes, all areas where fire retardants or other chemicals were applied shall be evaluated for residual chemical contamination by a qualified professional. If residual chemicals are present, these areas shall be appropriately remediated through the removal of contaminated soil and/or other appropriate measures.

Impact HAZ-2: Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of a hazardous material.

For the purposes of the following analysis, a significant impact would occur if the implementation of the Proposed Action would directly or indirectly cause the accidental release of a hazardous material. A direct impact would occur if the implementation of habitat management activities causes the accidental release of hazardous materials because of the use or handling and/or use of such a material. An indirect impact would occur if the Draft Fort Ord HCP, due to potential development and ground-disturbing activities, causes the accidental release of a hazardous material (e.g., asbestos, lead based paint, PCBs, contaminated groundwater), exposing persons or the environmental to such hazards. An impact would be significant if the release of the potential hazardous materials would expose persons and/or the environment to a sustained hazard that would adversely affect public health and the environment. An analysis of potential military munitions related hazards is addressed separately in this section; please refer to Impact HAZ-8 for more information. Prescribed burning and alternative vegetative management could also result in the exposure of persons and/or structures to additional hazards associated with the release of chemicals and other hazards; these potential effects are addressed in Impact HAZ-7 (please refer below; please also refer to Section 4.3, *Air Quality*).

As described in Chapter 3, *Affected Environment*, potentially hazardous materials are known to occur within the project area. As a result, it is reasonably foreseeable that construction associated with future development and habitat management activities (i.e., excavation, grading, vegetation removal, removal of remnant military structures) and/or other ground disturbing activities could potentially result in the release of existing hazardous materials (e.g., asbestos, lead based paint, PCBs, and contaminated groundwater). As described in Impact HAZ-1, development and habitat management activities may require the use, transport, and storage of potentially hazardous materials, including fuel, pesticides, and herbicides. Therefore, it is reasonably foreseeable that implementation of the Draft Fort Ord HCP may result in the accidental release of hazardous materials due to ground-disturbing activities or the temporary use and storage of potentially hazardous materials associated with habitat management activities. This is a potentially significant impact.

Potential impacts to public health and safety due to the accidental release of existing hazardous materials associated with former military base use and activities, as well as with the implementation of habitat management activities, would be partially mitigated through compliance with existing Federal, State, and local regulations pertaining to the treatment, use, and storage of hazardous materials. In addition, all property transferred from the Army to land use recipients is subject to extensive deed requirements and restrictive land use covenants. These transfer documents contain site-specific information related to the former use of the property and identify any known on-site hazardous material usage and corresponding measures to reduce potential hazards associated with former military use.

However, as described in Impact HAZ-1, the use of potentially hazardous materials to implement habitat management activities may result in the exposure of the public or the environment to potential health hazards. In addition to Draft HCP Measures and compliance with Federal, State, and local regulations, Mitigation Measures HAZ-1 and HAZ-2 were identified to reduce this potentially significant impact to a less-than-significant level. The implementation of these measures and compliance with Federal, State and local regulations (including deed requirements and land use covenants) would reduce the potentially significant impacts to persons and the environment associated with the accidental release of hazardous materials to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in the accidental release of hazardous materials. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to the AMMs and MMs identified under Impact HAZ-1.
- **Additional Mitigation:** Implementation of Mitigation Measures HAZ-1 and HAZ-2.

Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

For the purposes of this analysis, a significant adverse public health effect would occur if the implementation of the Proposed Action would potentially emit hazardous or acutely hazardous air emissions within one-quarter mile of an existing or proposed school. A hazardous air emission means any emissions into the ambient air of an air contaminant that has been identified as a toxic air contaminant by the CARB or by the local air pollution control officer. A detailed analysis of potential Toxic Air Contaminants is contained in Section 4.3, *Air Quality*; please refer to that section for further discussion of potential hazardous emissions.

The construction-related activities associated with future development and habitat management under the Proposed Action may result in the construction or alteration of a facility that would emit hazardous emissions within one-quarter mile of an existing or proposed school. Temporary emissions of diesel exhaust, a toxic air contaminant, may occur in connection with the operation of heavy equipment; the effects of diesel emissions; these impacts are addressed in Section 4.3, *Air Quality*. These air quality effects would be temporary in nature and would not expose existing or proposed schools to prolonged hazards associated with a hazardous air quality emission. In addition, prescribed burns could also result in temporary hazardous emissions by exposing an existing or proposed school to temporary air quality effects. Temporary air quality effects associated with the prescribed burns are evaluated in detail in Section 4.3, *Air Quality*. Mitigation Measures (AQ-1 through AQ-4, as well as HCP Measures) were identified to reduce these potentially significant impacts to a less-than-significant level. Please refer to Section 4.3, *Air Quality* for more information.

Implementation of the Proposed Action may result in the construction or alteration of a facility that would result in hazardous or acutely hazardous air emissions within one-quarter mile of an existing or proposed school. This is a potentially significant impact that would be reduced to a less-than-significant level with implementation of the HCP Measures and mitigation measures identified in Impact AQ-2.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may emit hazardous or acutely hazardous air emissions within one-quarter mile of an existing or proposed school. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to those identified in Impact AQ-2.
- **Additional Mitigation:** Implementation of Mitigation Measures AQ-1 through AQ-4.

Impact HAZ-4: Create and/or expose the public or environment to hazardous conditions on a site that is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5.

California Government Code Section 65962.5 requires that the DTSC compile a list, commonly referred to as the Cortese List. This list is required to identify all hazardous waste facilities subject to corrective action and all land designated as hazardous waste property. Government Code Section 65962.5 also contains additional requirements concerning the reporting of information concerning corrective actions and other pertinent information related to potential hazardous sites. The former Fort Ord, as a Federal Superfund Site, is listed as a toxic and hazardous waste site by DTSC as required pursuant to California Government Code Section 65962.5. For the purposes of this analysis, implementation of the Proposed Action would constitute an adverse environmental effect if it would expose the public to additional hazardous material sites beyond those previously considered as part of the base reuse planning and environmental review process.

The potential public health and safety issues associated with the transfer of former military land to the identified land recipients have been extensively evaluated by the Army. The Proposed Action/Plan Area is located exclusively within the boundaries of the former Fort Ord, a Federal Superfund Site. Implementation of the Proposed Action would not result in the exposure of the public or environment to additional hazardous material sites beyond those previously identified by the Army. As required pursuant to the CERCLA process, all former Fort Ord parcels are required to be remediated prior to the transfer to the recipient jurisdiction. Additional site controls and land use covenants are also contained as part of the deed transfer process to ensure that all appropriate measures are in place to ensure that the public is not exposed to any undue environmental hazards due to previous military use.

Remediation activities have been ongoing since base closure in accordance with the Superfund cleanup process and CERCLA. Implementation of habitat management activities would not result in the exposure of people or the environment to additional hazardous material sites compiled according to California Government Code Section 65962.5, beyond those identified as part of the base reuse and remediation process. Compliance with applicable deed restrictions and restrictive covenants, in addition to the programmatic measures contained in the Reuse Plan EIR, would ensure that the potential adverse environmental effects associated with the former use of the site for military purposes would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact HAZ-5: For a project located within an airport land use plan or within two miles of a public airport or within the vicinity of a private airstrip, expose people residing or working in the project area to a safety hazard.

The Marina Municipal Airport (formerly named Fritzsche Army Airfield) is located within the Plan Area, north of Reservation Road adjacent to the FONR, Marina Airport, and Salinas River HMAs. It is also located within two miles of the East Garrison North, East Garrison South, Landfill, Habitat Corridor/Travel Camp, and FONM HMAs. The Monterey Regional Airport is located outside the Plan Area southwest of the NAE and FONM HMAs, but within two miles of the Plan Area boundary. The Monterey Regional Airport includes a private airstrip. In addition, designated development areas are located within two miles of these airports.

Equivalent to the No Action Alternative, any future development activities would be subject to City and county zoning and planning requirements and are required to conform to the airport's CLUP unless the governing body specifically overrides the CLUP by supermajority vote. Implementing agencies are responsible for analyzing compliance with CLUPs

as part of their land use authority. Discretionary land use actions in proximity of airports and related facilities would be reviewed for consistency with the CLUP.

The implementation of habitat management activities within the identified HMAs would result in temporarily exposing people working in the HMAs to airport activities. However, only the Marina Airport HMA is located within an Approach Protection Zone and none of the habitat management activities involve constructing any structures (including habitable structures) or creating new hazards. As a result, and due to the temporary nature of the activities, this would be a less-than-significant impact and no mitigation measures are required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The implementation of the Proposed Action would result in future development activities that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs. Projects would also undergo environmental review on a project-by-project basis and those projects found to conflict with any plans would be required to incorporate feasible mitigation measures to reduce or avoid potential impacts.

Implementation of the Draft HCP would result in performing revegetation, restoration, and enhancement of habitat, prescribed burning and alternative vegetative management, non-native invasive species and erosion control, monitoring, and operations and management activities associated with roads, trails, and fuelbreaks. These activities would not result in blocking roads or interfering with any adopted emergency response plan or emergency evacuation plan. The operations and management activities associated with roads, trails, and fuelbreaks (e.g., vegetation removal, improvements, maintenance) would result in improved emergency access in the HMAs, and, therefore, this is a beneficial impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **beneficial**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **beneficial**.

No mitigation is required.

Impact HAZ-7 Expose people or structures to a significant loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The Proposed Action Alternative Plan Area is located in an area that is characterized by existing developed areas located adjacent to areas of extensive open space. While the former Fort Ord is not located within an area that is designated as being subject to severe or high fire hazards according to the State of California Department of Forestry and Fire Protection, the Plan Area could still be subject to wildland fire hazards due to the site's proximity to expansive areas of open space. A detailed discussion of potential fire protection effects associated with the Proposed Action is contained in Section 4.13, *Public Services*. Please refer to that discussion for more information.

Future development under the Proposed Action Alternative could result in exposing people or structures to wildland fire hazards for development occurring along the urban/wildland interface, including but not limited to the FONM and East Garrison South HMAs. However, the Draft HCP requires the construction and maintenance of fuelbreaks and all developments along the urban/wildland interface will be required to comply with State laws regarding fire-wise planning and setbacks. Implementation of the Draft HCP could result in direct and indirect wildland fire hazards. Indirect effects would be associated with exposing personnel to existing wildland fire hazards while implementing habitat management activities in the HMAs. However, the HMAs contain existing roads, trails, and fuelbreaks to allow for emergency access

and fire management activities. Therefore, significant exposure of personnel to loss, injury, or death involving wildfires while implementing the Draft HCP is reduced to a less-than-significant level.

Habitat management activities could also result in direct wildland fire hazards depending on the nature of the activity, materials used, duration of activity, and weather conditions. For instance, the temporary storage of fuel could constitute a potential fire hazard if not properly handled or stored. In addition, sparks from heavy machinery or vehicles could constitute a potential fire hazard on a hot, dry day. This would be a potentially significant impact. Draft HCP Measures and additional mitigation measures have been identified below to ensure these effects would be less-than-significant.

In addition to fire hazards related to habitat management activities, the implementation of the Draft HCP could directly cause potential wildland fire hazards in connection with the use of prescribed burns as a habitat management tool. Prescribed burns could result in a significant public safety hazard, particularly at the urban/open space interface. Prescribed burns could expose existing structures and people, as well as anticipated future uses, to a significant fire-related hazard in the absence of mitigation.

In order to ensure that potential wildland fire hazards associated with the implementation of the Draft HCP are minimized, the Draft HCP contains a number of measures (e.g., AMMs and MMs) to promote fire-wise planning, as well as implement other fire hazard reducing measures (e.g., maintaining adequate fuel breaks). Applicable Draft HCP Measures are presented below. Although implementation of the AMMs and MMs identified below would reduce potential impacts from wildland fire hazards, potential impacts would remain potentially significant; therefore, additional mitigation is required to reduce impacts to less-than-significant level. For more information concerning potential public safety concerns related to the use of prescribed burns, please refer to Section 4.13, *Public Services*, for more information.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may expose people or structures to a significant loss, injury, or death involving wildland fires. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** A number of the AMMs and MMs contained in the Draft Fort Ord HCP would significantly reduce the extent of direct and indirect wildland fire hazards associated with the Proposed Action. Applicable AMMs include: AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; and AMM-43, develop and implement fire and alternative vegetative management plan that describes best management practices and AMMs (conduct prescribed burns on rotational basis and limit construction of new roads and fuelbreaks).

Applicable MMs include MM-3, MM-22, MM-23, MM-24, MM-25, MM-34, MM-35, and MM-36. These measures would minimize extent of direct and indirect wildland fire hazards associated with the Proposed Action by requiring that: HMA-specific resource management plans include developing specific protocols for fire and alternative vegetative management, erosion control, and road and trail maintenance (MM-3); prescribed burns are completed on a rotational basis (MM-22) and scheduled in advance of development (MM-23); alternative vegetation management activities are used in lieu of prescribed burns (MM-24); mechanical thinning and understory clearing in lieu of prescribed burning as determined necessary and appropriate as well as reduction of fuel loads in areas considered too hazardous to burn (MM-25); and alternative vegetation management activities are researched (MM-34), including initiating a pilot program to test methods to remove non-native grasses (MM-35) and evaluating range of actions to support sustainable and healthy natural communities (MM-36).

- **Additional Mitigation:**

Mitigation Measure HAZ-3: In order to reduce potential wildland fire hazards associated with habitat management activities, if combustible materials are stored on-site, a Fuel Management Plan shall be prepared by a qualified professional prior to the initiation of the activity. The plan shall be reviewed and approved by the

Cooperative and/or Implementing Agency and shall be provided to the local Fire Department for informational purposes only. This plan shall describe on-going fuel management actions to minimize the extent of wildland fire hazards during the activity. Applicable management actions may include the following: temporary vegetation management, fuel storage and safety measures, worker training, and on-site water storage (if necessary). The Fuel Management Plan shall, at a minimum, include the following: description of project site and proposed activities, identify personnel responsible for implementing the plan, type of management activities to be implemented, and the contact information for applicable Fire Department personnel in the event of an emergency. The Fuel Management Plan shall be incorporated into all plans and specifications, if applicable. The plan shall be located on-site for the duration of the activity.

Impact HAZ-8: Cause potential hazards to the public due to exposure to military munitions.

Similar to the No Action Alternative, the implementation of the Proposed Action would not result in the exposure of personnel to additional munitions related hazards beyond those identified as part of Volume 4 of the Reuse Plan and Army's FEIS. In addition, all parcels transferred from the Army to respective land use jurisdictions are subject to specific land use restrictions and restrictive covenants, as well as an evaluation of suitability for transfer. Nevertheless, the public and potential habitat management personnel could still be exposed to munitions hazards. Ground-disturbing activities could result in the exposure of persons to potential injury and/or death in connection with munitions-related hazards. This is a potentially significant impact. In order to ensure that impacts are reduced to a less-than-significant level, mitigation is identified below.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may expose the public to military munitions. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.
- **Additional Mitigation:**

Mitigation Measure HAZ-4: In order to minimize potential health and safety risks due to the exposure to military munitions, the POM, Directorate of Environmental and Natural Resources Management (DENR), shall be contacted by the Cooperative or Implementing Agency to develop a safety program that specifies protocols relative to MEC in accordance with California State Division of Occupational Safety and Health (Cal-OSHA) and Army regulations. This program shall be approved by the Army, prior to the commencement of any ground-disturbing activities. In the event that military munitions are uncovered during the course of construction and other site disturbing activities, all work shall cease and Presidio Police shall be notified. Work shall not commence until the munitions have been removed from the site and the surrounding site soils have been sampled and remediated to acceptable levels (if soil sampling reveals lead or other soil contamination has occurred due to the presence of munitions).

Mitigation Measure HAZ-5: In order to minimize potential health and safety risks from exposure to military munitions, all land management personnel shall attend an Army-sponsored military munitions safety debriefing, prior to the commencement of any ground-disturbing habitat management activity. This briefing shall identify the variety of military munitions that are expected to exist on the former Fort Ord and the necessary actions to be taken if a suspicious item is discovered during the course of the activity. Prior to the commencement of the activity, written documentation from the Army demonstrating that all personnel have received military munitions identification training must be submitted to the appropriate land use jurisdiction.

Impact HAZ-9: Cause a potential hazard due to inundation by seiche, tsunami, or mudflow.

Similar to the No Action Alternative, the implementation of the Proposed Action could result in a potential hazard due to inundation by seiche, tsunami, or mudflow. Under the Proposed Action, minimal development would occur within the coastal margins of the former Fort Ord within the FODSP, resulting in a low potential for hazards.

Implementation of the Draft HCP would not create a potential hazard due to inundation by seiche, tsunami, or mudflow. The Draft HCP allows for the construction of habitable structures and/or facilities as part of proposed habitat management activities in HMAs with allowable development. However, these structures and/or facilities would not be located in areas of high hazards due to inundation by seiche, tsunami, or mudflow. The Draft HCP required actions would result in ground-disturbing activities in connection with on-going management activities; these actions would not create a potential inundation hazard for the purposes of this analysis. Compliance with existing regulatory requirements would be sufficient for the purposes of avoiding and/or minimizing potential impacts. This is a less-than-significant impact and no mitigation is required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.9.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts associated with hazards and hazardous materials. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes future development activities and the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. Where the Reduced Take Alternative differs from the Proposed Action Alternative and No Action Alternative is the reduction of development activities within the HMAs and the subsequent reduction in habitat management activities. Since the future development and habitat management activities would be generally similar as the Draft HCP, the level of impact would be the same as described in Impacts HAZ-1 through HAZ-9 when compared to the No Action Alternative, although slightly reduced for some impacts.

Therefore, for Impacts HAZ-4, HAZ-5, and HAZ-9:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Therefore, for Impact HAZ-6:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **beneficial**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **beneficial**.

No mitigation is required.

Therefore, for Impacts HAZ-1, HAZ-2, HAZ-3, HAZ-7, and HAZ-8:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative could result in exposure of persons and/or the environment to a hazardous substance, result in the accidental release of hazardous materials, emit hazardous or acutely hazardous air emissions within one-quarter mile of an existing or proposed school, expose people or structures to a significant loss, injury, or death involving wildland fires, and expose the public to military munitions. These represent potentially significant impacts that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified for Impacts HAZ-1, HAZ-7, HAZ-8, and AQ-2.
- **Additional Mitigation:** Implementation of Mitigation Measures HAZ-1 through HAZ-5, and AQ-1 through AQ-4 as identified for Impact AQ-2.

4.9.2.4. Cumulative Effects

Development in the project area over the past century has resulted in emissions of hazardous materials and exposure of the public to hazardous materials and hazards. Specifically, the former Fort Ord, as a Federal Superfund Site, is listed as a toxic and hazardous waste site by DTSC as required pursuant to California Government Code Section 65962.5. As part of past military training operations, military munitions were used throughout the former Fort Ord. While military munitions were primarily utilized in the impact areas of the inland areas, munitions may be located elsewhere within the former Fort Ord. As a result, development and habitat management activities could result in the exposure of the public to potential hazards associated with the former use of military munitions on Fort Ord. Remediation activities have been ongoing since base closure in accordance with the Superfund cleanup process and CERCLA.

Under the No Action Alternative, development would continue to occur consistent with the Reuse Plan and local planning documents (within a reduced footprint and slower pace), which could require the use and transport of hazardous materials. In addition, the reasonably foreseeable future actions identified in Section 4.1.4.3 would result in impacts associated with hazards and hazardous materials. However, compliance with existing regulations would limit the potential for any release of hazardous materials that would significantly contribute to a cumulative condition. It is also anticipated that environmental and planning review conducted of development projects under the No Action Alternative would require evaluation of the cumulative condition and mitigation for potential cumulative impacts related to hazardous materials and hazards. Further, as development is proposed on sites with known contamination, existing regulation would require remediation, which would have a beneficial impact on the cumulative condition.

As described above, the Proposed Action Alternative and Reduced Take Alternative have the potential to result in significant impacts associated with hazards and hazardous materials. The implementation of Mitigation Measures HAZ-1, HAZ-2, HAZ-3, HAZ-4, and HAZ-5, in addition to AQ-1 through AQ-4, are required to reduce potential impacts to a less-than-significant level. In addition, these alternatives must comply with applicable regulations, as well as the AMMs and MMs described above. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would not be appreciably different than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.10. HYDROLOGY AND WATER QUALITY

4.10.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively affect hydrology and water quality. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The following qualitative analysis is based on currently available information, including known information regarding habitat management activities within HMAs, as well as applicable NEPA and CEQA Guidelines and guidance documents.

4.10.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would
 - i. result in substantial erosion or siltation on- or off-site;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows.
- In flood hazards, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.10.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-64 through 4-70) determined the following:

- Potential impacts to hydrology and water quality issues would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to hydrology and water quality from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, development and habitat management activities could result in violations of water quality standards or waste discharge requirements. However, projects and activities would be subject to water quality discharge standards, including, but not limited to, the provisions of the CWA, Porter-Cologne Act, and statewide NPDES General Construction Permit, as described in Section 3.10.2, *Regulatory Framework*. As stated above, these activities would also be subject to the Reuse Plan and general plan policies that help reduce and prevent water quality impacts. Development activities could also result in the depletion of groundwater supplies or interfere with groundwater recharge for projects that utilize groundwater and for projects that increase impervious surfaces. However, development activities under the No Action Alternative would be subject to California regulations governing water use and groundwater, including, but not limited to, the Sustainable Groundwater Management Act, Reuse Plan and applicable local plans. Activities that greatly increase impervious surface area or require a substantial amount of grading could directly and indirectly alter the existing drainage pattern in a manner that would result in erosion, siltation, and/or environmental harm, or could increase the rate or amount of surface runoff in a manner that would result in flooding. Stormwater discharge standards for runoff within the Plan Area would be subject to the provisions of the statewide NPDES General Construction Permit and policies in the Reuse Plan and applicable general plans.

4.10.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

Impact WTR-1: Potential to violate any water quality standard or waste discharge requirement, substantially degrade surface or groundwater quality, or substantially alter drainage patterns.

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, impacts to hydrology and water quality would increase from those described under the No Action Alternative.

For the purposes of this EIR/EIS, the Proposed Action would represent a potentially significant impact if it may result in a violation of any water quality standard or waste discharge requirement, substantially degrade surface or groundwater quality, or substantially alter drainage patterns. Implementation of the development and habitat management activities may result in direct and indirect impacts to water quality that typically occur during construction activities, including increased erosion and subsequent release of sediment into the drainage system, and increased risk of pollutant spills from construction equipment (e.g., fuel, oil). Ground-disturbing activities could temporarily cause significant increases in site erosion associated with storm runoff. Long-term water quality impacts from increased impervious surfaces can result in altered storm runoff, groundwater quality impacts, loss of wetland and riparian habitat, and the introduction of urban pollutants. Development activities that include the construction of any new permanent, impervious surfaces that would result in potential long-term water quality impacts would be subject to Federal, State, and local regulations as well as CEQA and NEPA mitigation, which would minimize impacts.

Implementation of the Draft HCP would disturb approximately 795 - 900 acres as part of habitat management activities (i.e., revegetation, restoration, and enhancement) and an additional 555 acres as part of routine maintenance activities (i.e., existing road, trail, and firebreak maintenance). These actions are anticipated to disturb a total of approximately 1,400 acres over the course of 50 years. Maintaining and improving existing roads, trails, and fuelbreaks in HMAs would also result in ground-disturbing (e.g., vegetation removal, grading, excavation, etc.) activities. However, these habitat

management activities under the Proposed Action Alternative would be subject to the various laws, regulations, and policies described previously that would result in the protection of water quality and would not be more likely to result in hydrology and water quality impacts than the similar habitat management activities under the No Action Alternative. Moreover, these activities would result in long-term, beneficial impacts to water quality and drainage patterns.

In addition, covered activities requiring ground disturbance and the potential for discharge implemented as part of the conservation strategy under the Proposed Action Alternative would be subject to the AMMs and MMs required by the HCP, as identified below. Implementation of these AMMs and MMs would reduce the likelihood of a violation of any water quality standard, would not substantially degrade surface or groundwater quality, or substantially alter drainage patterns. Therefore, the Proposed Action Alternative would result in less-than-significant hydrology and water quality impacts relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Numerous HCP AMMs and MMs would reduce potential short-term water quality impacts related to implementing the Draft HCP. These include: AMM-4, employ weather timing restrictions (restrictions related to working during rainy season); AMM-14, establish and maintain fuelbreaks (including minimizing work during wet season); AMM-19, design and implement site design features to avoid or minimize direct and indirect impacts on local hydrological conditions and reduce potential for increased erosion and sedimentation; AMM-24, relocate roads and trails away from aquatic and riparian habitat; AMM-26, implement construction BMPs; AMM-28, implement an annual trail maintenance program to reduce effects of hiker and equestrian use; AMM-33, design and implement BMPs for maintenance of roads and facilities in HMAs; AMM-36, install silt fences or other sediment control devices; AMM-37, seed and straw disturbed areas to facilitate revegetation; AMM-38, limit herbicide and pesticide use and apply in accordance with AMMs; AMM-42, develop and implement erosion control measures to prevent sediment transport; AMM-43, develop and implement a habitat restoration, enhancement, and management plan that describes BMPs and AMMs; AMM-44, develop and implement a fire and alternative vegetative management plan that describes BMPs and AMMs (including use of fire retardants and foams and maintaining 300 foot buffer from aquatic features to avoid contamination); AMM-45, minimize use of chemical herbicides; AMM-46, provide overview of sensitive species and non-native invasive species control protocols; AMM-47, cover areas susceptible to erosion; AMM-48, limit livestock water use; AMM-51, disinfect equipment to avoid transferring disease or pathogens between aquatic habitats; and AMM-53, clean boots and equipment to avoid spread of non-native plant species and pathogens.

MMs include: MM-3, develop HMA-specific resource management plans (including erosion control); MM-4, develop base-wide management strategies (including erosion control); MM-30, identify priority sites and implement appropriate erosion control and site restoration methods; and MM-31, control erosion, remove hardstand, stabilize, and restore degraded sites.

- **Additional Mitigation:** None required.

4.10.2.3. Alternative 3: Reduced Take Alternative

Impact WTR-1: Potential to violate any water quality standard or waste discharge requirement, substantially degrade surface or groundwater quality, or substantially alter drainage patterns.

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed*

Action). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to hydrology and water quality. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to hydrology and water quality associated with these activities. While there would no development activities within the HMAs (a reduction of approximately 883 acres), the Reduced Take Alternative would include the same development activities within the designated development areas, and, thus, result in an increase in development activities in these areas compared to the No Action Alternative (by approximately 3,788 acres). Covered activities under the Reduced Take Alternative would be subject to the various Federal, State, and local regulations and policies and would be required to implement the AMMs and MMs described under the Proposed Action, reducing potential hydrology and water quality impacts to a less-than-significant level. Therefore, while development and habitat management activities under the Reduced Take Alternative would be greater than the No Action Alternative, the Reduced Take Alternative would not result in significant direct or indirect hydrology or water quality impacts.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to applicable AMMs and MMs identified under Alternative 2, Proposed Action.
- **Additional Mitigation:** None required.

4.10.2.4. Cumulative Effects

The expansion of development in the project area over the past century has resulted in the amount of land converted to residential, commercial, and other uses. This past development has increased demand on groundwater supplies, increased impervious surfaces, and increased runoff. The additional reasonably foreseeable future actions identified in Section 4.1.4.3. beyond the covered activities would have similar impacts to hydrology and water quality as projects under the No Action Alternative. Projects and the additional reasonably foreseeable future actions would be implemented under the same existing Federal, State, and local policies and regulations described in Section 3.10.2, *Regulatory Framework*. These regulations are anticipated to result in reducing water quality and hydrologic impacts when compared to past development. Although impacts may be less than those from past development, when combined with future actions, activities under the No Action Alternative may contribute to a significant cumulative effect on water quality and hydrology in the Plan Area.

As described above, under the Proposed Action Alternative and Reduced Take Alternative, potential hydrology or water quality impacts would be reduced to a less-than-significant level with implementation of the AMMs and MMs identified in Impact WTR-1. Moreover, these activities would result in long-term, beneficial impacts to water quality and drainage patterns. In addition, these alternatives must comply with applicable regulations, as well as the AMMs and MMs as described above. The habitat management activities under the Proposed Action Alternative and Reduced Take Alternative are not more likely to result in violation of water quality standards or waste discharge requirements than the similar habitat management activities under the No Action Alternative. Therefore, the cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would be less than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.11. LAND USE AND PLANNING

4.11.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect land use considerations. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

The following analysis evaluates the potential land use and planning effects associated with the implementation of the Draft Fort Ord HCP and alternatives. As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's EIS previously evaluated the potential land use issues associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. This analysis is based on currently available information, including known information regarding the Proposed Action, as well as applicable NEPA and CEQA Guidelines and guidance documents, the Reuse Plan, and applicable General Plans. In addition, the following analysis is based on a detailed review of existing literature sources. Applicable literature sources include prior NEPA and CEQA analyses performed in connection with the closure and subsequent reuse of the former Fort Ord (e.g., the cities' and County's general plans, Volume 4 of the Reuse Plan, and Army's FEIS and FSEIS).

4.11.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- physically divide an established community; or
- cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental affect.

4.11.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.11.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-11 through 4-23) determined the following:

- Potential impacts to land use and planning issues would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, land use impacts from construction and operational activities associated with future development activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR. In addition, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

Therefore, this alternative is not anticipated to result in direct or indirect impacts associated with physically dividing established communities or conflicting with any plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect. The HMP would continue to be implemented as part of the land transfer process and individual projects would be required to obtain take permits on a project-by-project basis. Habitat management activities would continue to be implemented in accordance with the requirements of the HMP.

4.11.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

Impact LUP-1: Physically divide an established community.

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. This alternative would consist of the redevelopment of the former Fort Ord as currently planned consistent with the development assumptions outlined in the adopted Reuse Plan and related planning documents over the next 50 years. In addition, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

Under the Proposed Action Alternative, the Draft HCP would be adopted and implemented, including the conservation strategy which creates a reserve system and includes biological goals and objectives for the covered species. Lands in the reserve system would either be maintained in their existing condition through conservation easement or other mechanisms, or would be restored or enhanced. While some existing roads and trails may be retired, the overall trail network would be managed and maintained. Similar to habitat management activities under the No Action Alternative, these activities would not restrict access or the ability to move between areas.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact LUP-2: Conflict with plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect.

CEQA requires that an EIR identify and analyze a project's potential to conflict with policies or regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect. An EIS/EIR must determine whether a project potentially conflicts with the environmental provisions of an applicable general plan or other regulatory document. Potential conflicts with adopted regulations can generally be classified into several broad land use categories that correspond with the topical sections (e.g., air quality, biological resources, etc.) analyzed in this EIS/EIR. A significant environmental effect must involve an adverse change in existing physical conditions.¹

The following analysis specifically evaluates the Proposed Action's consistency with the Reuse Plan and other applicable land use plans. An exhaustive analysis of the consistency with each of the affected land use jurisdictions' general plans is not considered necessary for the purposes of this evaluation, as the Reuse Plan is the over-arching regulatory document affecting development within the former Fort Ord. The general plan of each affected land use jurisdiction within the former Fort Ord must be consistent with the Reuse Plan pursuant to Chapter 8.0 of the FORA Master Resolution. All land use agencies are required to submit all legislative land use decisions affecting property in the former Fort Ord to FORA

¹ An inconsistency or policy conflict may be considered significant if substantial evidence in the record supports a fair argument that a project could cause a significant physical effect on the environment due to potential conflicts with adopted land use policies and regulations. According to applicable case law, an inconsistency or conflict is "merely a factor to be considered in determining" the significance of changes in the physical environment caused by a project (*Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal. App.4th 1170).

for review. As part of this process, FORA is responsible for reviewing legislative land use actions to determine consistency with the Reuse Plan.

Implementation of the Proposed Project would represent a potential conflict if it is inconsistent with the goals, policies, and other regulations contained in the Reuse Plan for the purposes of mitigating an adverse environmental effect. Since the development under the Proposed Action would be consistent with the Reuse Plan, no impact would occur. The Draft HCP is intended to provide base-wide take coverage for State and Federally listed species in accordance with the requirements of ESA and CESA. The Draft HCP would achieve the conservation and open space objectives contained in the Reuse Plan (e.g., Objectives A, B, and C; see Section 4.4.3.2 of Volume 2 of the Reuse Plan for more information). The implementation of habitat management activities, Draft HCP Measures (i.e., AMMs and MMs), and associated management actions, would achieve the biological, conservation, and open space goals and objectives contained in the Reuse Plan. These measures are intended to ensure that the issuance of incidental take permits is consistent with the requirements of ESA and CESA, as well as minimizing potential impacts associated with future management activities.

Overall, these activities are anticipated to help better achieve the stated conservation and open space policies (see Section 4.4.3.3 of Volume 2 of the Fort Ord Reuse Plan for more information) contained in the Reuse Plan by providing the appropriate framework for habitat conservation, as well as establishing long-term habitat goals and monitoring actions. While the implementation of the Draft HCP would generally achieve these goals and objectives, certain management activities may, nevertheless, conflict with certain land use policies contained in the Reuse Plan.

Implementation of the Draft HCP could conflict with policies intended to improve air quality (see Air Quality Policies A-1 and A-2 of the Reuse Plan). The Proposed Action Alternative entails the use of more prescribed burns for vegetation management purposes than assumed under the No Action Alternative. Prescribed burns would result in temporary air quality effects as described in Section 4.3, *Air Quality*. Moreover, prescribed burns could also result in potential conflicts with objectives intended to address potential safety considerations related to wildland fire hazards (see Section 4.6.2.2 of Volume 2 of the Reuse Plan). Prescribed burns could result in an increased demand, albeit temporarily, for fire protection services, particularly in the event that a scheduled burn became uncontrollable due to changes in prevailing wind patterns or other factors. Please refer to Section 4.9, *Hazards and Hazardous Materials*, and Section 4.13, *Public Services*, for more information. While the Draft HCP could result in potential conflicts with adopted air quality and public safety objectives contained in the Reuse Plan, the potential adverse effects associated with prescribed burns are analyzed within this EIS/EIR and are considered temporary in nature. Implementation of the applicable Draft HCP Measures and mitigation identified in this EIS/EIR would reduce impacts to acceptable levels (i.e., less than significant). Potential inconsistencies would not represent a new physical impact on the environment. As a result, the implementation of the Draft HCP Measures and mitigation identified for these impacts are required to reduce potential impacts to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may conflict with plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures:

- **AMMs & MMs:** A number of the AMMs and MMs contained in the Draft HCP would significantly reduce the extent of air quality effects associated with the Proposed Action. Applicable AMMs that would minimize the extent of air quality emissions associated with ground disturbance and prescribed burns include: AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; AMM-26, implement construction BMPs, including preparing and implementing an air quality analysis to determine the potential for proposed construction project to exceed the 82 lb/day inhalable particulate threshold established by the MBARD; and AMM-44, develop and implement a fire and alternative vegetative management plan that describes BMPs and AMMs (conduct prescribed burns on rotational basis and limit construction of new roads and fuelbreaks).

Applicable MMs include MM-3, MM-22, MM-23, MM-24, MM-25, MM-34, MM-35, and MM-36. These measures would minimize the extent of air quality emissions associated with the use of prescribed burns by requiring that: HMA-specific resource management plans include developing specific protocols for fire and alternative vegetative management, erosion control, and road and trail maintenance (MM-3); prescribed burns are completed on a rotational basis (MM-22) and scheduled in advance of development (MM-23); alternative vegetation management activities are used in lieu of prescribed burns (MM-24); mechanical thinning and understory clearing are used in lieu of prescribed burning as determined necessary and appropriate as well as reduction of fuel loads in areas considered too hazardous to burn (MM-25); and alternative vegetation management activities are researched (MM-34), including initiating a pilot program to test methods to remove non-native grasses (MM-35) and evaluating a range of actions to support sustainable and healthy natural communities (MM-36).

- **Additional Mitigation:** Implement Mitigation Measures AQ-1 through AQ-4 and PS-1 contained in Section 4.3, *Air Quality*, and Section 4.13, *Public Services*.

Therefore, with implementation of the relevant HCP, Air Quality, and Public Services measures described above, this alternative is not anticipated to result in direct or indirect impacts associated with physically dividing established communities or conflicting with any plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect.

Impact LUP-3: Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Proposed Action Alternative would not conflict with any other applicable habitat conservation plan or natural community conservation plan. No other habitat conservation plans or natural community conservation plans are applicable to the former Fort Ord. The Fort Ord HMP is, however, relevant in the sense that it identifies management requirements for lands within the former Fort Ord. The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss. The HMP establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying what type of activities can occur on each parcel. Parcels are designated as “development with no restrictions,” “habitat reserves with management guidelines,” or “habitat reserves with some development allowed.” The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP does not provide specific authorization for incidental take under the ESA or CESA. The Proposed Action Alternative would provide base-wide coverage for take of Federal and State listed wildlife and plant species to all non-Federal entities receiving land on the former Fort Ord. The Draft HCP would provide the regulatory framework for compliance with the ESA and CESA. The Draft HCP is consistent with the HMP and, per AMM-1, would be required to implement the HMP. Implementation of the Draft HCP would not adversely affect and/or otherwise conflict with a habitat or natural community conservation plan. Please refer to Section 2.3.4.1, *Background*, Section 4.4, *Biological Resources*, for more information.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.11.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which

would reduce land use and planning impacts. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce potential land use impacts associated with these activities. While there would be no development activities within the HMAs (a reduction of approximately 883 acres), the Reduced Take Alternative would include the same development activities within the designated development areas, and, thus, would be consistent with the Reuse Plan.

Since the habitat management activities would generally be the same as the Proposed Action, the impacts would be the same as described in Impacts LUP-1 through LUP-3 when compared to the No Action Alternative, although slightly reduced for some impacts. Overall, under the Reduced Take Alternative, Impacts LUP-1 through LUP-3 would not be appreciably different from what is described for the Proposed Action Alternative.

Therefore, for Impacts LUP-1 and LUP-3:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Therefore, for Impact LUP-2:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may conflict with plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Same as identified under Impact LUP-2.
- **Additional Mitigation:** Implement Mitigation Measures AQ-1 through AQ-4 and PS-1 contained in Section 4.3, *Air Quality*, and Section 4.13, *Public Services*.

Therefore, with implementation of the relevant HCP, Air Quality, and Public Services measures described above, this alternative is not anticipated to result in direct or indirect impacts associated with physically dividing established communities or conflicting with any plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect.

4.11.2.4. Cumulative Effects

The Reuse Plan, general plans, and other applicable local planning documents establish the policies and regulations that guide local land use decisions for each jurisdiction separately. The additional reasonably foreseeable future actions identified in Section 4.1.4.3. beyond the covered activities would have similar impacts to land use as projects under the No Action Alternative. As stated above, under the No Action Alternative, the development and habitat management

activities would not physically divide existing communities or conflict with applicable plans. Therefore, the No Action Alternative would not contribute to those potential impacts.

The existing cumulative condition in the Plan Area resulting from past and present projects for the No Action Alternative remains the same for the Proposed Action Alternative and Reduced Take Alternative. As described above, under the Proposed Action Alternative and Reduced Take Alternative, potential land use impacts would be reduced to a less-than-significant level with implementation of the AMMs and MMs identified in Impact LUP-2 and Mitigation Measures AQ-1 through AQ-4 and PS-1 contained in Section 4.3, *Air Quality*, and Section 4.13, *Public Services*. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would not be appreciably different than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

4.12. NOISE

4.12.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively have adverse noise effects. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. It is assumed that all future development approved by the local jurisdictions within the former Fort Ord would be consistent with the policies of the respective general plan, and would be subject to all applicable mitigation measures identified in those respective CEQA analyses such that the impacts identified would be adequately mitigated. The following qualitative analysis is based on currently available information, including known information regarding habitat management activities within HMAs, as well as applicable NEPA and CEQA Guidelines and guidance documents, including the Noise Control Act of 1972. Additional mitigation measures may be identified in the future in connection with specific projects or activities conducted as part of the development activities; these measures would be identified at the time future project or activity-specific environmental review is conducted.

4.12.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- expose noise-sensitive land uses to construction-related or temporary increase in noise levels;
- permanent exposure of noise-sensitive land uses to noise levels in excess of established standards; or
- increase in traffic noise levels.

4.12.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.12.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-136 through 4-149) determined the following:

- Potential noise impacts from construction and operation of the implementation of the Reuse would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential noise from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, future development projects could generate sufficient construction (direct impact) and operational (indirect impact) noise to result in violations of noise standards; however, projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. As described in Section 3.2, Noise, noise can result in direct and indirect impacts. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Under the No Action Alternative, potential construction-related, temporary noise impacts could be associated with the implementation of habitat management activities under the HMP and those activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas. However, HMP-required habitat management activities would include only a subset or limited management activities (i.e., preservation, research, and some restoration activities) that could be implemented without ITPs under the No Action Alternative, which would result in minimal noise impacts.

4.12.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, noise impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact NOISE-1: Exposure of noise-sensitive land uses to construction-related or temporary increases in noise levels.

For the purposes of this analysis, the Proposed Action would constitute a significant adverse environmental effect if it were to expose noise-sensitive land uses (e.g., residences, schools, hospitals, etc.) to substantial, albeit temporary, increases in noise that would cause an increase in ambient noise levels above existing levels. Such effects, if they occur, would be direct impacts caused by implementation of permitted activities associated with construction and habitat management, as described further below.

Temporary noise-generating activities associated with future development activities may occur near sensitive noise receptors, such as residential areas and parks or recreation areas in the vicinity of the Plan Area. Noise-generating activities from the construction and operation of future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Anticipated noise-generating activities from implementation of habitat management activities would be similar to construction-related noise levels associated with ground-disturbing activities (i.e., excavation, grading, vegetation removal, hauling materials, and vehicle traffic) and may require the use of heavy equipment (e.g., bulldozers, trucks, and dump trucks). Therefore, the implementation of habitat management activities associated with the Proposed Action could result in exposing persons to temporary, short-term increases in ambient noise levels and ground borne vibrations and noises.

Noise and vibration impacts from construction-related activities depend on the type of equipment used, the timing and length of activities, the distance between the noise-generating activities and receptors, and shielding. Habitat management activities would occur periodically. Noise and vibration impacts, although temporary, could exceed existing ambient noise levels and may be heard by residents and visitors to nearby parks or recreation areas. The noise generated from

construction activities is not expected to be severe; however, implementation of the Proposed Action could result in temporary noise impacts from excavation and other ground-disturbing activities.

As described in Chapter 2, *Proposed Action and Alternatives*, as well as Section 4.1, *Introduction* (please also refer to Chapter 3, *Project Description/Covered Activities*, and Chapter 4, *Impact Assessment and Take*, of the Draft Fort Ord HCP), the Proposed Action would entail the implementation of a number of habitat management activities in HMAs that would result in ground-disturbing activities. These activities would result in approximately 1,400 acres of ground disturbance over the 50-year permit term. Revegetation, restoration, and enhancement activities are estimated to occur on approximately 795 – 900 acres within the HMAs. Operations and management activities in the HMAs include activities to maintain and improve roads and trails, and maintain appropriate fuel breaks. These activities would result in 555 total acres of ground disturbance (up to 114 acres for road and trail maintenance and 442 acres for fuelbreak maintenance). These activities would potentially involve ground disturbance through grading and other associated activities, thereby resulting in temporary increases in construction-related noise. These temporary noise effects could directly affect sensitive receptors within the immediate vicinity of habit management activities.

The majority of habitat management activities within HMAs are not expected to have adverse construction-related noise impacts, as the activities would not involve substantial construction activities. Additionally, the majority of the HMAs are located in relatively remote areas separated from existing and future planned residential uses. Furthermore, activities and potential impacts would be subject to policies and mitigation measures for applicable jurisdictions' general plans. However, the temporary exposure of persons to periodic, short-term increases in ambient noise levels and groundborne vibrations above existing levels would be significant compared to the No Action Alternative, but would be mitigated to a less-than-significant level with implementation of mitigation identified below. There are no Draft HCP measures (i.e., AMMs or MMs) that apply specifically to potential noise impacts. Implementation of additional mitigation identified below, Mitigation Measure NOISE-1, would reduce potential noise impacts to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may expose noise-sensitive land uses to temporary increases in noise levels. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.

Mitigation:

Mitigation Measure NOISE-1: In order to reduce noise levels to the maximum extent practicable, the following noise-reducing practices shall be implemented for all habitat management activities that have the potential to exceed ambient noise levels within 300 feet of a sensitive receptor:

- Noise-generating activities within 300 feet of an occupied residence or other sensitive receptor will only be performed during normal daylight hours (7:00 a.m.–7:00 p.m.), Monday through Friday, wherever feasible.
- Require use of construction equipment and haul trucks with noise reduction devices, such as mufflers, that are in good condition and operating within manufacturers' specifications.
- Require selection of quieter equipment (e.g., gas or electric equipment rather than diesel-powered equipment), proper maintenance in accordance with manufacturers' specification, and fitting of noise-generating equipment with mufflers or engine enclosure panels, as appropriate.
- Prohibit vehicles and other gas or diesel-powered equipment from unnecessary warming up, idling, and engine revving when equipment is not in use and encourage good maintenance practices and lubrication procedures to reduce noise.

- Locate stationary noise sources, when feasible, away from residential areas and perform functions such as concrete mixing and equipment repair off-site.

Impact NOISE-2: Potential permanent exposure of noise-sensitive land uses to noise levels in excess of established standards.

For the purposes of this EIS/EIR, the Proposed Action would constitute a significant adverse environmental effect if it were to expose noise-sensitive land uses to a substantial permanent increase in ambient noise levels above existing noise levels in excess of established standards.

Noise-generating activities associated with future development activities may have direct impacts if they occur near sensitive noise receptors in the vicinity of the Plan Area. Indirect impacts may occur due to noise-generating activities from the operation of facilities developed under the Proposed Action and would be similar to the No Action Alternative, but within a larger footprint and at a faster pace, which could result in permanent exposure to noise levels in excess of established standards. However, projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Habitat management activities within HMAs would occur within areas of the former Fort Ord on a continued basis over the 50-year permit term. Noise-sensitive land uses adjacent to and within the Plan Area include residential areas and parks and recreational areas. Some habitat management activities in HMAs would require excavation and other ground-disturbing activities; however, potential direct and indirect noise and ground vibration impacts to nearby sensitive receptors would be temporary in nature and would occur on a periodic basis. Therefore, the potential impact for permanent exposure of sensitive receptors to noise levels in excess of established standards would be less than significant. Although habitat management activities would result in greater noise impacts relative to the No Action Alternative, impacts would remain less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact NOISE-3: Potential increases in traffic noise levels.

The Proposed Action would constitute a significant adverse environmental effect if it were to expose noise-sensitive land uses to a substantial permanent increase in ambient noise levels above existing noise levels in excess of established standards by increasing traffic noise levels in relation to sensitive receptors. Noise-sensitive land uses adjacent to and within the Plan Area include residential areas and parks and recreational areas.

Traffic noise levels associated with future development activities may occur near sensitive noise receptors in the vicinity of the Plan Area. Traffic noise during construction of permitted facilities would constitute a direct impact, while traffic noise due to use of constructed facilities would constitute an indirect impact. Traffic from future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace, which could result in permanent exposure to noise levels in excess of established standards. However, projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce direct and indirect noise impacts.

Habitat management activities within HMAs include maintaining and improving roads and trails, and fuelbreaks. Revegetation, restoration, and enhancement; prescribed burning and alternative vegetative management; non-native invasive species control; erosion control for habitat restoration and enhancement; and, on-going monitoring, are also

habitat management activities that would occur within HMAs. Minor increases in traffic in various locations throughout the Plan Area would occur periodically associated with these habitat management activities, which would, therefore, create minor increases in traffic noise levels along the local road network on a periodic basis. Additionally, increased access to recreational areas would be expected to result in slightly increased traffic in the Plan Area, thereby resulting in an increase in traffic noise levels.

The potential for traffic-related noise impacts from habitat management activities in HMAs of the Proposed Action identified above would not be substantial based on scope and duration of activities and existing policies and programs limiting new noise generation. Additionally, increased access to recreational areas is not expected to significantly increase traffic in the Plan Area and thereby would not result in a substantial increase in traffic noise levels (please see Section 4.15, *Transportation and Circulation*). Due to these factors, associated increases in traffic noise levels would not significantly affect noise conditions in the Plan Area.

Moreover, Impact NOISE-1 identifies mitigation to reduce potential construction-related noise associated with habitat management activities to a less-than-significant level. Furthermore, as identified in Section 4.15, *Transportation and Circulation*, the preparation of Traffic Control Plans shall be required for habitat management activities conducted within HMAs, which shall further address construction-related traffic nuisances. Therefore, this impact would be less than significant. Although habitat management activities would result in greater noise impacts relative to the No Action Alternative, impacts would remain less than significant. There are no specific HCP measures, either in the form of HCP MMs or AMMs, that directly apply, and no additional mitigation is required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.12.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce noise impacts. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

Impact NOISE-1: Exposure of noise-sensitive land uses to construction-related or temporary increase in noise levels.

The Reduced Take Alternative includes the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce noise impacts associated with these activities. While there would no development activities within the HMAs (a reduction of approximately 883 acres), the Reduced Take Alternative would include the same development activities within the designated development areas as the Proposed Action Alternative, and, thus, result in an

increase in noise impacts associated with the construction and operation of these areas compared to the No Action Alternative (by approximately 3,788 acres).

Temporary noise-generating activities associated with future development would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Under Alternative 3, the habitat management activities in HMAs would occur as described in the Proposed Action, and thus, would be greater than the No Action Alternative. This would result in an increase in potential temporary, construction-related noise impacts. Therefore, Mitigation Measure NOISE-1 would apply, as with the Proposed Action, as habitat management activities would occur as described in the HCP. Implementation of Mitigation Measure NOISE-1 would reduce potentially significant impacts to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may expose noise-sensitive land uses to temporary increases in noise levels. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.
- **Additional Mitigation:** Implement Mitigation Measure NOISE-1.

Impact NOISE-2: Potential permanent exposure of noise-sensitive land uses to noise levels in excess of established standards.

Under Alternative 3, noise-generating activities associated with future development activities may occur near sensitive noise receptors in the vicinity of the Plan Area. Indirect impacts may occur due to noise-generating activities from the operation of facilities developed under the Reduced Take Alternative and would be similar to the No Action Alternative, but within a larger footprint and at a faster pace, which could result in permanent exposure to noise levels in excess of established standards. Noise-generating activities from the operation of future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace, which could result in permanent exposure to noise levels in excess of established standards. However, projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Habitat management activities in HMAs would occur as described in the Proposed Action, and, therefore, would increase relative to the No Action Alternative. Potential permanent exposure of noise-sensitive land uses to noise levels in excess of established standards under Alternative 3 would be equivalent to that under the Proposed Action (i.e., less than significant). Therefore, the potential impacts for permanent exposure of sensitive receptors to noise levels in excess of established standards would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact NOISE-3: Potential increases in traffic noise levels.

Under Alternative 3, traffic noise levels associated with future development activities may occur near sensitive noise receptors in the vicinity of the Plan Area. Traffic from future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace, which could result in permanent exposure to noise levels in excess of established standards. However, projects would be subject to various noise-related laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Development projects could also be subject to the applicable general plan policies that target excessive noise generation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed the applicable noise standards would be required to incorporate feasible mitigation measures to reduce noise impacts.

Under Alternative 3, the habitat management activities in HMAs would occur as described in the Proposed Action. Therefore, potential exposure of noise-sensitive land uses to traffic-related noise under Alternative 3 would be equivalent to that under the Proposed Action. Therefore, as with the Proposed Action, the potential impact would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.12.2.4. Cumulative Effects

Development in the project area over the past century has resulted in an increase in the amount of land converted into residential, commercial, and other uses. This past development has altered the character of sound in the Plan Area such that human-related sources of noise have replaced natural sources. The development of the Plan Area has resulted in the addition of mobile (e.g., automobiles, airplanes, etc.) and point sources (e.g., industrial uses) of noise. Overall, development will produce sources of noise not previously found in the Plan Area. This could result in a cumulatively considerable contribution to existing ambient noise conditions.

Under the No Action Alternative, development would continue to occur consistent with the Reuse Plan and local planning documents, which could increase noise in the Plan Area. In addition, the reasonably foreseeable future actions identified in Section 4.1.4.3 would result in noise impacts. However, compliance with existing Federal, State, and local policies and regulations, such as described in Section 3.12.3, *Regulatory Framework*, would result in reduced noise impacts as compared to past development. It is also anticipated that environmental and planning review conducted of development projects under the No Action Alternative would require evaluation of the cumulative condition and mitigation for potential cumulative impacts related to noise. Although impacts may be less than those from past development, when combined with additional foreseeable projects within the project area, activities under the No Action Alternative could have a significant cumulative impact related to noise impacts within the Plan Area.

The implementation of the habitat management activities under the Proposed Action Alternative and Reduced Take Alternative would add relatively minor amounts of noise. As described above, the Proposed Action Alternative and Reduced Take Alternative have the potential to result in significant impacts associated with exposing sensitive receptors to construction-related or temporary increase in noise levels. The implementation of Mitigation Measure NOISE-1 is required to reduce potential impacts to a less-than-significant level. In addition, these alternatives must comply with applicable regulations. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would be less than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.13. PUBLIC SERVICES

4.13.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively have adverse impacts to public services (including recreational facilities). Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The following qualitative analysis is based on currently available information, including known information regarding habitat management activities within HMAs, as well as applicable NEPA and CEQA Guidelines and guidance documents.

4.13.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services:
 - fire protection;
 - police protection;
 - schools;
 - parks; or
 - other public facilities.
- increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.13.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.13.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. pp. 4-74 through 4-80) determined the following:

- Increased demand for law enforcement services and fire protection and emergency response services would be unavoidable and significant.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to public services from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

This alternative would consist of the redevelopment of the former Fort Ord as currently planned consistent with the development assumptions outlined in the adopted Reuse Plan and related planning documents over the next 50 years. However, given the project-by-project review, it is anticipated that development within the vegetated development areas, if permitted, would occur at a slower pace and within a reduced development footprint. In addition, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

Under the No Action Alternative, development and habitat management activities within the Plan Area would occur consistent with the Reuse Plan and local planning documents. Planned development would result in the need for expanded and additional public services and recreational facilities. However, provision of public services and the infrastructure needed to provide service is included in the Reuse Plan, general plans, and other applicable planning documents. Direct and indirect environmental impacts associated with the construction of public services would be addressed on a project-by-project basis. Mitigation would be proposed to reduce environmental effects to the degree feasible. The development of new or expanded public services would be consistent with the requirements of current local plans and policies and are assumed to be sufficient to meet the growing demand as required by these plans and policies. New residential developments could substantially increase the demand for recreational facilities. Existing parks and open space operated by Federal, State, and local agencies would continue to be available. The development of new or expanded recreational facilities would be expected to continue, in part, in response to increased demand consistent with local plans and policies. Direct and indirect recreation-related impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with applicable laws, regulations, and policies. Construction of new or expanded facilities could also have the potential to result in temporary disruptions to access to individual recreational facilities or portions of facilities. However, access disruptions would cease after construction was complete and full access to the facilities would be restored. Habitat management activities, including prescribed burning, could result in an increased demand in public services, such as fire and police protection, and result in a degradation of recreational facilities.

4.13.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

Impact PS-1: Increased demand for police and fire protection services that would result in the construction of new or altered police or fire facilities.

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, impacts to public services and recreational facilities would increase from those described under the No Action Alternative.

The Proposed Action Alternative incorporates the same development-related activities identified for the No Action Alternative, but within a larger footprint and at a faster pace. Direct and indirect public service and recreational impacts as a result of these development-related activities would be the greater than described under the No Action Alternative.

However, projects would be subject to various laws and regulations, as discussed in Section 3.12.3, *Regulatory Setting*. Projects would undergo environmental review on a project-by-project basis and those projects found to significantly affect public services and recreational facilities would be required to incorporate feasible mitigation measures to reduce impacts.

The Proposed Action would result in the implementation of the proposed habitat management activities, as well as allowing private and public access to the HMAs for recreational and educational uses. Habitat management activities would consist of operations, maintenance, and management of roads, trails, and fuelbreaks; restoration and enhancement; prescribed burning and alternative vegetative management; non-native, invasive species control; erosion control; and monitoring. Private and public use within the HMAs would include recreational (e.g., hiking, biking, walking, equestrian use, camping) and educational (e.g., educational programs including fieldtrips, nature walks, and workshops) activities. These activities would be temporary and periodic over the course of the 50-year permit term.

Recreational and/or educational uses are covered activities within all HMAs; however, public access would be limited or prohibited within the UC FONR and Range 45 Reserve. Private access would be permitted on all HMAs, with permission from the landowner. Public access is only currently permitted at the FONM and FODSP along designated trails. Several other HMAs also anticipate allowing future public access along designated trails. Camping is currently proposed at the FODSP and Travel Camp HMAs, and, may occur at other HMAs in the future (e.g., FONM, Wolf Hill, and Lookout Ridge HMAs). Only non-motorized vehicles on authorized trails are allowed within the HMAs; no off-road vehicles are permitted. Authorized vehicles would be allowed within the HMAs to conduct habitat management activities.

Wildfires can be caused by nature – mostly due to lightning strikes – but the vast majority are caused by humans. Some human-caused fires result from campfires left unattended, burning of debris, negligently discarded cigarettes, and intentional acts of arson. Wildfires can also be caused unintentionally by heat and sparks from vehicles and equipment.

The implementation of the Draft HCP would be funded by three primary funding sources: the CFD Special Tax, annual State budget appropriations, and Federal budget appropriations (please refer to Chapter 9, *Cost and Funding*, of the Draft HCP for details).¹ Other funding sources (e.g., grants) would also be available. The funding sources would be used for HCP required actions during the permit term and perpetuity. A cost model was prepared for the Draft HCP (please refer to **Table 9-1**, in Chapter 9, *Cost and Funding*, of the Draft HCP) to calculate the costs necessary to implement the HCP required actions (i.e., program administration, habitat restoration, management and maintenance, monitoring and adaptive management, contingency, and costs in perpetuity). The cost model includes the number of additional staff and equipment required to implement the HCP required actions, including security and fuel specialists, vehicles and fuel, and safety and firefighting equipment.

The County and each respective landowning city (with the exception of Del Rey Oaks, which is provided fire protection services through the Seaside Fire Department) would be responsible for responding to incidents in each respective jurisdiction. Based on the goals and policies contained in the Seaside, Marina, and County General Plans, and as evidenced by past expansions of police and fire services, it is expected that police and fire services would continue to expand in proportion to development activities and that expansion would require new or improved facilities.

It can be expected that recreational and educational use of the HMAs would continue and/or increase over time under the Proposed Action. The increase in use could indirectly result in an increase in the risk of wildfires due to a higher concentration of people and activities that may pose potential fire hazards, thereby increasing the demand for fire protection services. The increase in use also could indirectly result in increased demands for park rangers, open space management, and police services to provide public safety services. The provision of staff and equipment under the Draft HCP and the provision of police and fire protection services from the local jurisdictions would be sufficient to accommodate the increase in demand for police and fire protection services as a result of increased recreational and educational use under the Draft HCP, thus not necessitating construction of new or altered police or fire facilities. Therefore, this is a less-than-significant impact.

However, habitat management activities proposed within the HMAs could result in increased demand for fire services, primarily due to the planned use of prescribed burning, which would increase as compared to the No Action Alternative. Although prescribed burns would be periodically conducted by qualified personnel and only under conditions favorable to

¹ Please note that Federal funds are not involved in mitigation for the purposes of the Federal ITP.

the safe implementation of prescribed fire, there remains the possibility that burns could get out of control. Thus, prescribed burning would result in an increased risk of wildland fires, thereby increasing demand for fire protection services that may warrant the construction of new or altered fire facilities. While the Draft HCP contains measures and provides funding for staff and equipment that would address the increased demand, additional mitigation would be required to ensure that the local jurisdictions have the support required to respond to the additional demand for fire protection services. This is a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in an increased demand for fire services. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Numerous AMMs would reduce the potential increase in demand for fire protection services associated with prescribed burning. These include: AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; AMM-32, develop and implement a public outreach and education plan; and AMM-44, develop and implement fire and alternative vegetative management plan which includes additional best management practices and AMMs (conduct prescribed burns on rotational basis and limit construction of new roads and fuelbreaks).

Applicable MMs include MM-3, MM-20, MM-22, MM-23, MM-24, MM-25, MM-34, MM-35, and MM-36. These measures would minimize the extent of air quality emissions associated with the use of prescribed burns by requiring that: HMA-specific resource management plans include developing specific protocols for fire and alternative vegetative management, erosion control, and road and trail maintenance (MM-3); close and rehabilitate redundant or unneeded road and trail systems (MM-20); prescribed burns are completed on a rotational basis (MM-22) and scheduled in advance of development (MM-23); alternative vegetation management activities are used in lieu of prescribed burns (MM-24); mechanical thinning and understory clearing in lieu of prescribed burning as determined necessary and appropriate as well as reduction of fuel loads in areas considered too hazardous to burn (MM-25); use livestock grazing in FONM grassland areas to control non-native invasive grasses (MM-28); and alternative vegetation management activities are researched (MM-34), including initiating a pilot program to test methods to remove non-native grasses (MM-35) and evaluating range of actions to support sustainable and healthy natural communities (MM-36).

Additional Mitigation:

Mitigation Measure PS-1: All fire protection service providers in the vicinity of the former Fort Ord shall be notified by the Cooperative or other Implementing agency before each scheduled prescribed burn to be conducted as a vegetative management activity. Fire service providers will be notified with a description and location of a planned prescribed burn one week from a scheduled burn, at minimum. Fire service providers will be further notified if a planned burn is delayed or canceled.

Impact PS-2: **Increase the use of existing neighborhood and regional parks or other recreational facilities that would result in, or accelerate, the substantial physical deterioration of the facility, or result in the construction or expansion of recreational facilities that would have a physical adverse effect on the environment.**

Unlike the No Action Alternative, the Proposed Action Alternative includes allowable development within HMAs. Allowable development within the HMAs may include new recreational facilities or the expansion of existing facilities, such as parking lots, restrooms, wildlife observation platforms, and educational kiosks. As described in Impact PS-1, the Proposed Action Alternative includes recreational and/or educational uses as covered activities within all HMAs. Public access would be limited or prohibited within the UC FONR and Range 45 Reserve. Private access would be permitted on

all HMAs, with permission from the landowner. Public access is only currently permitted at the FONM and FODSP along designated trails. Several other HMAs also anticipate allowing future public access along designated trails. Camping is currently proposed at the FODSP and Travel Camp HMAs, and, may occur at other HMAs in the future (e.g., FONM, Wolf Hill, and Lookout Ridge HMAs). Only non-motorized vehicles on authorized trails are allowed within the HMAs; no off-road vehicles are permitted. Authorized vehicles would be allowed within the HMAs to conduct habitat management activities. Therefore, it can be expected that recreational and educational use of the HMAs would continue and/or increase over time under the Proposed Action compared to the No Action Alternative. In addition, an increase in use of the HMAs may also result in an increase in use in other recreational facilities in the Monterey Bay region as an indirect effect of more visitors in the area.

Although an increase in use of recreational areas and/or facilities would be viewed as a beneficial impact of the Proposed Action, an increase in use could directly and indirectly result in the physical deterioration of an existing recreational area or facility, including, but not limited to, the degradation of trails and habitat, erosion, littering, and the spread of non-native, invasive species. However, the management of existing parks and recreational facilities outside the Plan Area would continue to occur under the purview of the respective jurisdictions and the use of existing facilities would be dispersed among the various facilities in the region. In addition, the availability of new recreational areas facilities in the HMAs would further disperse use of existing facilities and offset the demand on existing facilities. Further, as identified below, the Draft HCP contains measures that would avoid or reduce the potential for substantial physical deterioration of the recreational areas within the HMAs. Therefore, the increase in the use of existing recreational areas and facilities would not be burdensome such that physical deterioration of the facilities would occur. Therefore, impacts to recreational facilities would be less-than-significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

Mitigation:

- **HCP Measures (AMMs & MMs):** Numerous AMMs and MMs would reduce potential adverse impacts related to the increased use of existing recreational areas and facilities. These include: AMM-16, conduct an access assessment during the planning process to identify necessary access controls for all Borderland parcels; AMM-17, incorporate non-native species control features into site design for all Borderlands and HMAs; AMM-19, design and implement site design measures to avoid or minimize direct and indirect impacts of new development on local hydrological conditions and reduce potential for increased erosion and sedimentation; AMM-24, relocate roads and trails away from aquatic and riparian/wetland habitats when feasible and remove unneeded hardstand; AMM-27, maintain regular security patrols and determine the need to install and maintain access controls; AMM-28, implement an annual trail maintenance program to reduce potential effects of hiker and equestrian use; AMM-32, develop and implement a public outreach and education plan; AMM-34, implement maintenance rotations for roads and trails to prevent excess wear; AMM-36, install silt fences where there is potential for sediment to move offsite; AMM-37, seed and straw disturbed areas outside of the road or trail corridor to facilitate revegetation; AMM-40, clean mowing equipment to prevent spread of non-native noxious weeds; AMM-42, develop and implement erosion control measures; AMM-43, develop and implement a habitat restoration, enhancement, and management plan that described BMPs and AMMs.

Applicable MMs include: MM-3, develop HMA-specific resource management plans; MM-4, develop base-wide management strategies; MM-20, close and rehabilitate redundant road and trail systems;

- **Additional Mitigation:** None required.

Impact PS-3: Increased demand for schools that would result in the construction of new or altered facilities.

Future development activities under the Proposed Action Alternative may include new schools or the expansion of existing facilities, such as classrooms, athletic facilities, playgrounds, and infrastructure. It is anticipated that the increase in residential housing and population resulting from the Proposed Action and expected regional development would create a demand for public schools which would exceed existing public school capacity on the Monterey Peninsula, which are

currently operating at near-capacity levels. In addition, CSUMB student enrollment is projected to reach a total of 12,000 FTE students (up from approximately 7,500 in 2018) by 2025 as a result of development. Since future development activities would increase under the Proposed Action Alternative compared to the No Action Alternative, potential impacts to schools as a result of residential development would be greater.

However, provision of schools and associated infrastructure is included in the Reuse Plan, general plans, and other applicable planning documents. Environmental impacts associated with the construction or expansion of schools would be addressed on a project-by-project basis. Mitigation would be proposed to reduce environmental effects to the degree feasible. The development of new or expanded schools would be consistent with the requirements of current local plans and policies and are assumed to be sufficient to meet the growing demand as required by these plans and policies. Therefore, impacts to schools would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.13.2.3. Alternative 3: Reduced Take Alternative

Impact PS-1: Increased demand for police and fire protection services that would result in the construction of new or altered police or fire facilities.

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to public services. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

Under Alternative 3, the prescribed burns within the HMAs would occur as described in the Proposed Action, which would increase compared to the No Action Alternative. While the Draft HCP contains measures and provides funding for staff and equipment that would address the increased demand, additional mitigation would be required to ensure that the local jurisdictions have the support required to respond to the additional demand for fire protection services. This is a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may result in an increased demand for fire services. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to applicable AMMs and MMs identified under Alternative 2, Proposed Action Alternative, as they would apply to this alternative.
- **Additional Mitigation:** Implement Mitigation Measure PS-1.

Impact PS-2: Increase the use of existing neighborhood and regional parks or other recreational facilities that would result in, or accelerate, the substantial physical deterioration of the facility, or result in the construction or expansion of recreational facilities that would have a physical adverse effect on the environment.

Under Alternative 3, the future development and habitat management activities in HMAs would occur as described in the Proposed Action, with the exception that allowable development in the HMAs would be eliminated as a covered activity. Therefore, the increase in the use of existing recreational areas and facilities would not be burdensome such that physical deterioration of the facilities would occur. Therefore, impacts to recreational facilities would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact PS-3: Increased demand for schools that would result in the construction of new or altered facilities.

Under Alternative 3, the future development activities would occur as described in the Proposed Action Alternative, which would be greater than those under the No Action Alternative. However, provision of schools and associated infrastructure is included in the Reuse Plan, general plans, and other applicable planning documents. Environmental impacts associated with the construction or expansion of schools would be addressed on a project-by-project basis. Mitigation would be proposed to reduce environmental effects to the degree feasible. The development of new or expanded schools would be consistent with the requirements of current local plans and policies and are assumed to be sufficient to meet the growing demand as required by these plans and policies. Therefore, impacts to schools would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.13.2.4. Cumulative Effects

Development in the project area over the past century has resulted in an increase in the amount of land converted into residential, commercial, and other uses. This past development has resulted in an increased demand for public services and recreational facilities to accommodate increased populations. Projects and activities under the No Action Alternative would continue the trend of increasing the demand for these services and could combine with the reasonably foreseeable future actions in the project area (please refer to Section 4.1.4.3) to result in a larger cumulative increase in demand for the associated resources. Consistent with the Reuse Plan and local plans, further development of public and recreational facilities would occur as planned development proceeds under the No Action Alternative. Individual projects would be required to determine if an increase in demand would occur and if there is a need for new or expanded facilities, and either provide these facilities directly or fund or otherwise support provision of needed facilities. It is anticipated that future development under the No Action Alternative, as well as future actions in the project area, would comply with policies set forth in the Reuse Plan and local plans. Habitat management activities, including prescribed burns, may increase the demand for public services and recreational facilities.

The implementation of the habitat management activities under the Proposed Action Alternative and Reduced Take Alternative would increase use of recreational areas and/or facilities, which could result in the physical deterioration of an

existing recreational area or facility. However, the management of existing parks and recreational facilities outside the Plan Area would continue to occur under the purview of the respective jurisdictions and the use of existing facilities would be dispersed among the various facilities in the region. In addition, the availability of new recreational areas facilities in the HMAs would further disperse use of existing facilities and offset the demand on existing facilities. Further, the Draft HCP contains measures that would avoid or reduce the potential for substantial physical deterioration of the recreational areas within the HMAs. As a result, the increase in demand for recreational facilities would not be significant and would not make a contribution to cumulative effects. As described above, the Proposed Action Alternative and Reduced Take Alternative have the potential to result in a significant impact to public services. The implementation of Mitigation Measure PS-1 is required to reduce potential impacts to a less-than-significant level. In addition, these alternatives must comply with applicable regulations. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would not be appreciably different than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

4.14. SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

4.14.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential effects associated with permit issuance and the approval and implementation of the Draft HCP and alternatives that may directly, indirectly, or cumulatively affect socioeconomic and environmental justice issues. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

The following analysis evaluates the potential socioeconomic and environmental justice effects associated with the implementation of the Draft Fort Ord HCP and alternatives. Volume 4 of the Reuse Plan and the Army's FEIS and FSEIS previously evaluated the potential socioeconomic and environmental justice issues associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. This analysis is based, in part, on information contained in Volume 4 of the Reuse Plan (FORA, 1997) and the Army's FEIS and FSEIS.

Information contained in this section is based on currently available documentation, including information contained in the Draft HCP, as well as applicable NEPA and CEQA Guidelines. This section has been prepared based on applicable CEQ and EPA NEPA guidance related to the treatment and consideration of potential socioeconomic and environmental justice considerations (please refer to *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis*, April 1998; see also CEQ's *Environmental Justice, Guidance under the National Environmental Policy Act*, December 1997). In addition, the following analysis is also based on standard professional practice and a detailed review of applicable census data. Literature sources reviewed as part of this analysis include prior NEPA/CEQA analyses performed in connection with the closure and subsequent reuse of the former Fort Ord (e.g. the Cities' and County's general plans, Volume 4 of the Reuse Plan [FORA, 1997], and the Army's FEIS [USACE, 1993]).

4.14.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- substantially affect employment, industry, or commerce, including requiring the displacement of businesses or farms;
- substantially affect property values or the local tax base;
- substantially, disproportionately affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group(s);
- predominantly result in an adverse effect on a minority or low-income area as defined by the EPA; or
- displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.14.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.14.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR.

The impact analysis presented in the Reuse Plan EIR (pp. 4-29 through 4-31) determined the following:

- Potential socioeconomic impacts that may result from increases to existing jobs/housing imbalances or demand for additional public assistance programs would be less than significant with the implementation of the identified policies and programs.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential direct impacts to socioeconomics from construction and indirect impacts from operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, development within the Plan Area would continue to occur, which would lead to population growth and would potentially result in the need for additional homes and community services, even with a reduced footprint and at a slower pace. Land use associated with the Reuse Plan and local plans anticipate and accommodate population growth. The development of new and expanded communities and services would be expected to continue in response to population growth, consistent with the Reuse Plan, local plans, and policies. Environmental impacts associated with the construction of new development would be addressed on a project-by-project basis. The implementation of the Reuse Plan and local plans would result in an increase in housing and employment in the Plan Area, which would have a beneficial effect on the local economy. The anticipated increases in housing and employment are expected to positively contribute to the local tax base through the generation of property tax revenue.

As indicated in **Tables 3.14-2** and **3.14-3**, minority and low-income individuals constitute a meaningfully higher percentage of the population within the unincorporated areas of Monterey County, Seaside, and Marina. When creating regional and local plans, public outreach and engagement programs are conducted to involve residents, business owners, and other stakeholders in the development of the vision, goals, and policies. While CEQA does not require lead agencies to review whether a project would have a disproportionately high and adverse effect on minorities and low-income populations, there are requirements that each jurisdiction accommodate low-income residents as part of housing element policies. In addition, regional and local plans contain policies that aim to provide for the needs of all residents, including minorities and low-income persons.

Unlike the Proposed Action, compliance with ESA and CESA would occur through the compliance with the HMP and the acquisition of project-specific individual take permits, as appropriate. Obtaining individual take permits on a project-by-project basis could affect employment, industry, and/or commerce and could adversely affect existing rates of employment by reducing the extent of future job growth as compared to the Draft HCP. In addition, this alternative would not provide a regulatory mechanism for the purposes of complying with ESA and CESA. As a result, additional regulatory obstacles may discourage and/or otherwise affect employment, industry, or commerce.

4.14.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

Impact SOCIO-1: Affect employment, industry, or commerce, including requiring the displacement of business or farms.

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities.

For the purposes of the following analysis, implementation of the Draft HCP would constitute an adverse effect if it would disproportionately affect existing sources of employment, industry, or commerce, including causing the displacement of existing businesses or farms. The Draft HCP is not anticipated to adversely affect existing sources of employment, industry, or commerce. Moreover, it would not cause the displacement of business or farms. The Proposed Action, issuance of ITPs and approval and implementation of the Draft HCP, would provide a regulatory mechanism for

compliance with ESA and CESA. This would directly affect the development review process associated with future development within the former Fort Ord by establishing a legal framework for ESA and CESA compliance. These changes would potentially (directly and indirectly) affect local and regional market conditions, which could in turn affect local employment, industry, and/or commerce. None of these effects would result in the displacement of business or farms.

In general, the implementation of the Draft HCP and issuance of ITPs would cause changes to the existing development process. The Draft HCP would provide a mechanism for compliance with ESA and CESA. The issuance of permits to the participating entities and the implementation of the Proposed Action would clearly define the legal process by which future development activities would comply with ESA and CESA. This would reduce the uncertainty associated with the issuance of permits for future projects, which may thereby affect employment, industry, and/or commerce by establishing a clear legal framework by which area development may occur consistent with the requirements of ESA and CESA. The Proposed Action would reduce uncertainty associated with permit issuance, mitigation requirements, and the time necessary to obtain permits for individual projects. Implementation of the Proposed Action, by providing a mechanism to comply with ESA and CESA, would reduce the extent of uncertainty associated with ESA and CESA compliance, particularly related to the extent and cost of biological mitigation requirements for impacts to covered species. All mitigation for affected resources would be clearly defined and known. These factors would directly affect economic considerations related to future development within the former Fort Ord.¹

The implementation of the Draft HCP, which would entail a variety of habitat management and maintenance/operations related activities, would directly affect employment, industry, and/or commerce. Specifically, implementation of habitat management related activities and other management actions would directly cause the creation of new sources of employment. These measures would result in the creation of 23 new sources of employment within the Plan Area. Job creation would represent a beneficial economic effect for the purposes of this analysis. These activities would not adversely affect existing economic conditions nor would these actions cause the displacement of existing business or farms. This represents a beneficial economic effect.

While the Proposed Action may directly and/or indirectly affect employment, industry, and/or commerce, the extent of potential effects varies. Overall, the Proposed Action would streamline the development review process for the purposes of compliance with ESA and CESA. These changes would not constitute a substantial adverse socioeconomic impact. In addition, actual implementation of the Draft HCP would cause the creation of new sources of economic activity through the implementation of habitat management requirements; this would result in new sources of employment. Overall, the Proposed Action would: 1) reduce uncertainty associated with ESA and CESA compliance; 2) clearly establish a legal mechanism by which local agencies could ensure that mitigation is implemented in connection with “Covered Activities;” and 3) cause the creation of new sources of employment. No business or farms would be displaced.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **beneficial**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required

Impact SOCIO-2: Substantially affect property values or the local tax base.

For the purposes of the following analysis, the Draft HCP would substantially affect property values if it would impose new development/land use restrictions that would limit existing development potential. Property values are dependent on a wide range of site-specific and broad geographic considerations, such as size and shape of the property, accessibility, environmental conditions, legal constraints, utilities, zoning and land use regulations, available land supply/inventory, and overall economic climate. The imposition of land use restrictions (e.g., legal constraints) could significantly affect

¹ In addition, the Proposed Action may also directly affect industry through the payment of applicable HCP fees (or FORA fees); the payment of fees may affect commerce. In addition, certain land use restrictions in areas adjacent to open space (e.g., Borderlands) may also reduce the extent of otherwise developable property. The implementation of these measures could have implications to future project proponents. The redevelopment of the former Fort Ord would, however, continue to occur as envisioned under the Reuse Plan. As a result, the Proposed Action would not preclude and/or otherwise restrict development as currently planned with the exception of certain requirements pertaining to the implementation of conservation measures and the payment of applicable fees.

property values by limiting allowable uses on-site, requiring dedicated setbacks from sensitive habitats, and requiring the imposition of certain conditions on site development activities. These types of measures could affect the value of property. The Draft HCP does not entail the imposition of new or expanded land use restrictions. No portions of the former Fort Ord would be rezoned, no new or substantially different uses would be introduced, nor would the Draft HCP alter or expand existing infrastructure such that the value of surrounding property would be affected.

The Draft HCP could potentially affect the local tax base if property acquisition is necessary for the purposes of conservation and habitat management. The acquisition of property would reduce the local tax roll by converting otherwise developable property into dedicated habitat areas. This could result in eliminating potential sources of local tax funding. Implementation of the Draft HCP does not, however, require the acquisition of property. Existing habitat management areas were set aside during the course of the base reuse planning process. As a result, no new properties would need to be acquired in order to achieve the habitat management and species-specific restoration goals. The Draft HCP would not deny local agencies sources or cause the loss of existing sources of tax funding.

In summary, the Draft HCP would not result in the imposition of new development restrictions or additional land use requirements that would reduce property values. In addition, habitat management and maintenance/operations related activities would not have any effect on existing property values and/or tax revenues. Habitat management activities would occur throughout the duration of plan implementation (50 years). These activities would result in temporary impacts related to ground-disturbing activities; these activities would not significantly affect existing economic considerations. Moreover, no new property would need to be acquired for the purposes of habitat management/conservation activities. Therefore, the Draft HCP would not adversely affect existing property values or the local tax base.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact SOCIO-3: Cause a disproportionate effect on minority, low-income, elderly, disabled, transit-dependent, or other specific interest group(s).

As described in Section 3.14, *Socioeconomics and Environmental Justice*, a low-income community consists of an area, in this instance a census tract, which contains 50 percent or more residents living below the poverty threshold. A minority population consists of a geographic area that contains 50 percent minorities. For the purposes of this analysis, a census tract that contains 50 percent or more minority or low-income population constitutes an environmental justice community. No low-income populations were identified within the vicinity of the Plan Area (please refer to **Table 3.14-3** for more information). Numerous census tracts were identified as containing a minority population; seven census tracts were identified in the immediate vicinity of the Plan Area that contain minority populations for the purposes of this analysis (please refer to **Figure 3.14-1**). Implementation of the Draft HCP, therefore, has the potential to affect a minority community.

Minority communities located within the vicinity of the Plan Area are primarily located in the unincorporated area of the County north of the former Fort Ord and the Cities of Seaside and Marina. Portions of these areas are located immediately adjacent to the former Fort Ord. For the purposes of this analysis, the Draft HCP would primarily affect minority populations, the elderly, disabled, and other disadvantaged groups in connection with the implementation of certain habitat management activities (i.e., prescribed burns). No transit-dependent groups would be affected.

While the Army has historically utilized prescribed burns as part of site remediation and clean-up activities under CERCLA, the Draft HCP would increase the use of prescribed burns in connection with habitat management activities. Prescribed burns would be used on a temporary basis for vegetation management purposes. As described elsewhere in this EIS/EIR, prescribed burns would begin to occur in year 20 of Plan implementation and would affect approximately 1,000 to 1,500 acres each decade. A total 6,203 acres would be burned over the course of 40 years. Prescribed burning would be conducted on a rotational basis based on specific decadal goals. According to the Draft HCP, burns are suggested to occur in the following HMAS: FONM, FONR, East Garrison Reserve, Parker Flats Reserve, Landfill Parcel,

and Range 45 Reserve. However, because only BLM FONM has committed to conduct prescribed burns and MMs require only FONM and East Garrison South (if feasible prior to development of adjacent parcels) to conduct prescribed burns, this analysis assumes FONM and East Garrison South would conduct prescribed burns as part of HCP implementation. Due to the proximity of existing development, it would be particularly difficult to implement prescribed burns in the remaining HMAs, and, therefore, for the purposes of this analysis, it is assumed that alternative vegetative management would occur in those HMAs.

The use of prescribed burns could result in temporary air quality effects that could expose adjacent minority communities, the elderly, and disabled to increased hazards due to their proximity to the former Fort Ord. Prescribed burns could expose these populations to potential air quality hazards, increased exposure to wildland fire hazards, and other potential effects. The potential air quality effects associated with the use of prescribed burns are described in Section 4.3, *Air Quality*, please refer to that section for more detail. Please also refer to Section 4.9, *Hazards and Hazardous Materials*, as well as Section 4.13, *Public Services*, for a discussion of potential wildland fire hazards and associated impacts to fire protection services. The use of prescribed burns in areas adjacent to high concentrations of minority communities, the elderly, and disabled, would expose these groups to potential adverse environmental and associated human health effects if appropriate measures are not implemented to minimize potential human health and safety concerns.

The Draft HCP contains a number of measures (i.e., AMMs and MMs) that are intended to reduce the extent of potential health and safety effects associated with the use of prescribed burns. These measures, which are identified below, are intended to encourage the use of alternative vegetation management practices in lieu of prescribed burns, implement fire-wise planning measures and best practices, schedule potential burns in advance of development, and conduct burning on a rotational basis. In addition, future prescribed burns would be required to comply with all applicable MBARD requirements related to the regulations of prescribed burns. The MBARD requirements are intended to reduce the potential health risks associated with smoke inhalation. Please refer to Section 4.3, *Air Quality*, Section 4.6, *Hazards and Hazardous Materials*, and Section 4.13, *Public Services*, for more information on the potential public health and safety concerns associated with prescribed burns. While minority populations and other disadvantaged groups (e.g., disabled and elderly) could be exposed to potential health and safety hazards due to their proximity to prescribed burns, these impacts would be temporary in nature and would be mitigated through applicable Draft HCP Measures (AMMs and MMs) and implementation of Mitigation Measures AQ-3, AQ-4, and PS-1. Therefore, implementation of the Draft HCP would not disproportionately affect minority, low-income, elderly, disabled, or other interest groups.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may cause a disproportionate effect on minority, low-income, elderly, disabled, or other specific interest groups. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** A number of the AMMs and MMs contained in the Draft HCP would significantly reduce the extent of air quality effects associated with the Proposed Action. Applicable AMMs that would minimize the extent of air quality emissions associated with ground disturbance and prescribed burns include: AMM-14, establish and maintain fuelbreaks; AMM-15, implement fire-wise planning; and AMM-44, develop and implement a fire and alternative vegetative management plan that describes BMPs and AMMs (conduct prescribed burns on rotational basis and limit construction of new roads and fuelbreaks).

Applicable MMs include MM-3, MM-22, MM-23, MM-24, MM-25, MM-34, MM-35, and MM-36. These measures would minimize the extent of air quality emissions associated with the use of prescribed burns by requiring that: HMA-specific resource management plans include developing specific protocols for fire and alternative vegetative management, erosion control, and road and trail maintenance (MM-3); prescribed burns are completed on a rotational basis (MM-22) and scheduled in advance of development (MM-23); alternative vegetation management activities are used in lieu of prescribed burns (MM-24); mechanical thinning and understory clearing are used in lieu of prescribed burning as determined necessary and appropriate as well as

reduction of fuel loads in areas considered too hazardous to burn (MM-25); and alternative vegetation management activities are researched (MM-34), including initiating a pilot program to test methods to remove non-native grasses (MM-35) and evaluating range of actions to support sustainable and healthy natural communities (MM-36)..

- **Additional Mitigation:** Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1.

Impact SOCIO-4: Cause an adverse effect on a minority or low-income area as defined by the EPA.

EPA's NEPA guidance for addressing environmental justice concerns (see *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis*, April 1998) defines both minority and low-income populations. A minority or low-income area/population exists when the area consists of 50 percent or more of an affected group (e.g., low-income or minority). EPA Guidance defines a low-income community as persons living below the poverty level as defined by the U.S. Census Bureau. EPA's NEPA guidance identifies that the "disproportionate high and adverse effects" of a Proposed Action on a minority or low-income community should be evaluated within the context of NEPA. These potential effects encompass both human health and environmental effects. A detailed evaluation of the Draft HCP's potential disproportionate effects on minority and low-income areas are evaluated above; please refer to the discussion contained under Impact SOCIO-3 for more information. This impact was identified as a potentially significant impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may cause an adverse effect on a minority or low-income area. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to Impact SOCIO-3 above.
- **Additional Mitigation:** Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1.

Impact SOCIO-5: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The Draft HCP would not result in the displacement of a substantial number of people. Implementation of the Draft HCP would provide the framework for compliance with the regulatory requirements of ESA and CESA. The Draft HCP requires the implementation of a number of habitat management and maintenance/operations activities. These activities would not result in the displacement of persons. There would be no impact associated with implementation of the Draft HCP.

NEPA Level of Significance: As compared to the No Action Alternative, **no impact** would occur.

CEQA Level of Significance: As compared to Existing Conditions, **no impact** would occur.

No mitigation is required.

4.14.2.3. Alternative 3: Reduced Take Alternative

Impact SOCIO-1: Affect employment, industry, or commerce, including requiring the displacement of businesses or farms.

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within

the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce socioeconomics and environmental justice impacts associated with these activities. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

Habitat management activities within HMAs would be similar to those described in the Proposed Action under this alternative, but reduced. This alternative may result in an increase in development intensity within the designated development areas in order to accommodate road corridors and infrastructure, as well as recreational facilities, proposed in the HMAs under the Proposed Action. These improvements would occur within areas previously evaluated for development purposes as part of the Reuse Plan. The construction of road corridors and infrastructure within the designated development areas, depending on future roadway alignments and infrastructure siting, could potentially displace existing businesses. No farms would, however, be impacted. The displacement of potential business would be contingent upon roadway alignments and it is assumed that site planning could avoid these impacts to the greatest extent feasible. In addition, implementation of this alternative would also entail habitat management activities, which would result in local job creation. This alternative is not likely to adversely affect economic growth and development.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact SOCIO-2: Substantially affect property values or the local tax base.

This alternative would result in effects similar to those of the Proposed Action. Habitat management activities, including prescribed burns, would continue to be implemented under this alternative. While this alternative would result in an increase in development intensity within the designated development areas in order to accommodate road corridors and infrastructure, as well as recreational facilities, it is not anticipated to significantly affect property values or future local tax revenues. This alternative would result in impacts comparable to those of the Proposed Action.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact SOCIO-3: Cause a disproportionate effect on minority, low-income, elderly, disabled, transit-dependent, or other specific interest groups(s).

This alternative would result in effects similar to those of the Proposed Action. Minority communities within the proximity of the Plan Area would be exposed to potential hazards in connection with prescribed burns. Please refer to the impact analysis contained in Impact SOCIO-3 under the Proposed Action. This impact was identified as a potentially significant impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may cause a disproportionate effect on minority, low-income, elderly, disabled, or other specific interest groups. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** Please refer to Impact SOCIO-3 above under the Proposed Action.
- **Additional Mitigation:** Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1.

Impact SOCIO-4: Cause an adverse effect on a minority or low-income area as defined by the EPA.

This alternative would result in effects similar to those of the Proposed Action. Minority communities within the proximity of the Plan Area would be exposed to potential hazards in connection with prescribed burns. Please refer to the impact analysis contained in Impact SOCIO-3 under the Proposed Action. This impact was identified as a potentially significant impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may cause an adverse effect on a minority or low-income area. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Mitigation:

- **HCP Measures (AMMs & MMs):** Please refer to Impact SOCIO-3 above under the Proposed Action.
- **Additional Mitigation:** Implementation of Mitigation Measures AQ-3, AQ-4, and PS-1.

Impact SOCIO-5: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

This alternative would result in the implementation of the same future development activities and similar habitat management activities as the Proposed Action. This alternative would result in impacts comparable to those of the Draft HCP in that no persons would be displaced as part of these activities.

NEPA Level of Significance: As compared to the No Action Alternative, **no impact** would occur.

CEQA Level of Significance: As compared to Existing Conditions, **no impact** would occur.

No mitigation is required.

4.14.2.4. Cumulative Effects

It is anticipated that implementation of the Reuse Plan and other local plans would result in an overall increase in economic activities within the project area as a result of development activities. Accordingly, the No Action Alternative would not result in an incremental contribution to cumulative socioeconomic effects. Implementation of the Reuse Plan, which must consider various economic and environmental factors, is unlikely to result in overall disproportionate effects on environmental justice populations. The reasonably foreseeable future actions identified in Section 4.1.4.3 would be consistent with the local plans, and, therefore, would be unlikely to result in overall disproportionate effects on environmental justice populations.

The implementation of the habitat management activities under the Proposed Action Alternative and Reduced Take Alternative would not significantly adversely affect employment, industry, commerce, property values, or local tax base in the Plan Area. Overall, these alternatives would streamline the development review process for the purposes of compliance with ESA and CESA. Minority, low-income, and other special interest groups may be exposed to potential health and safety risk associated with prescribed burns under these alternatives. The implementation of Mitigation

Measures AQ-3, AS-4, and PS-1 is required to reduce potential impacts to a less-than-significant level. In addition, these alternatives must comply with applicable regulations. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would not be appreciably different than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.15. TRANSPORTATION AND CIRCULATION

4.15.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively have adverse transportation and circulation impacts. Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Army's FEIS and FSEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The following qualitative analysis is based on currently available information, including known information regarding habitat management activities in HMAs, as well as applicable NEPA and CEQA Guidelines and guidance documents, and a Traffic Analysis prepared by Hatch Mott McDonald (please refer to **Appendix C.1**). This section has been updated with recent data collected in the region for the FORA Fee Reallocation Study: Deficiency Analysis and Fee Reallocation Fiscal Year 2016/2017 (Kimley Horn, 2017) (please refer to **Appendix C.2**).

4.15.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- a substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system;
- safety hazards due to design features or incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit) or inadequate emergency access; or
- conflict with adopted transportation plans, programs, or projects.

4.15.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.15.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. In addition, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

The impact analysis presented in the Reuse Plan EIR (pp. 4-99 through 4-119) determined the following:

- Increased travel demand on the regional transportation system would be unavoidable and significant.
- Increased travel demand within former Fort Ord would be less than significant with implementation of the policies and programs identified.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to transportation and circulation from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, development activities would introduce new vehicles to the local and regional roadway networks, and increase the demand for alternative forms of transportation. Depending on the type, volume, and location of new development, as well as any changes in the network in response to increased demands, projects could result in the degradation of the performance of the network that: conflicts with applicable plans, policies, and ordinances; conflicts with applicable congestion management programs or standards; results in inadequate emergency access; or conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. However, regional and local impacts to the transportation network associated with the buildout of the Plan Area have been anticipated and planned for as part of regional planning efforts. These efforts account for the population growth associated with planned development in the Reuse Plan and local plans. Increases in traffic can also result in indirect impacts, including, but not limited to, wildlife and vehicle collision, increase in emissions, and noise. The direct and indirect impacts of development projects on the regional and local roadway network would be addressed on a project-by-project basis during the environmental and planning processes. Mitigation of traffic impacts would occur as a result of projects implemented by FORA (please refer to **Table 2-9b**), TAMC, and local jurisdictions. In addition, plans and policies to address traffic impacts would continue to be implemented. Development would be subject to local approval and would be consistent with the transportation goals and policies of the applicable local plan. Under the No Action Alternative, projects would be required to implement mitigation measures to reduce potentially significant transportation impacts. Implementation of the HMP could include a variety of activities that generate vehicle trips, such as maintenance, monitoring, and enforcement. However, these vehicle trips would be infrequent and intermittent, would occur throughout the day and would not be focused during peak traffic periods. In addition, the reserve areas are not open to public vehicles.

4.15.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, traffic impacts as a result of these activities would increase from those described under the No Action Alternative.

Impact TRC-1: Traffic Circulation Impacts.

The Proposed Action Alternative includes an increase in development-related activities to those identified for the No Action Alternative, with the HCP providing a mechanism for the Wildlife Agencies to provide incidental take authorization for these lawfully undertaken covered activities. Transportation impacts as a result of these development-related activities would be the greater than those described under the No Action Alternative.

Direct and indirect traffic impacts from the construction and operation of future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Development projects would be subject to the applicable general plan policies that establish standards for acceptable levels of service. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed those standards would be required to incorporate feasible mitigation measures to reduce impacts.

Potential transportation and circulation impacts as a result of habitat management activities in HMAs could occur as a result of implementing habitat management activities and increased public use. Implementation of habitat management activities would occur periodically and would be generally short-term in nature, dispersed among and within the HMAs. They would also occur through the day and would not be focused during peak traffic periods. Because public motorized vehicles are not authorized within the HMAs, there would be no traffic impacts within the HMAs. Use of the regional and local roadway network to access the HMAs for these activities would also be periodic and dispersed throughout the Plan Area without resulting in concentrated traffic disturbances. The activities associated with the implementation of the Draft HCP are expected to require up to 23 new employees over the 50-year permit term: eight employees for the Cooperative, 13 for BLM, and two for UC. Employee vehicle trips generated by these activities are expected to be similar to the

existing traffic volumes associated with the current land management activities. Therefore, traffic impacts to the regional and local road network associated with these activities would be less than significant.

Increased public use of the recreation areas within the HMAs may result in impacts to the regional and local road network. Public access would be limited or prohibited within the UC FONR and Range 45 Reserve, and any private access would be associated with habitat management activities (e.g., maintenance, educational programs, monitoring, etc.); these uses would, therefore, generate little to no trip activity.

The majority of the public recreational use would be focused within the FODSP, FONM, and County HMAs. While these areas are currently open to the public, an increase in recreational use is expected over the 50-year permit term. However, the anticipated increase in public use would be primarily associated with the availability of new recreational facilities, which would be subject to future environmental review (please refer to the discussion under Impact PS-2). Therefore, traffic impacts as a result of public access for recreational use would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact TRC-2: Transit Impacts.

The Proposed Action would have a significant effect if it would cause adverse impacts to an existing transit system. Future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Development projects would be subject to the applicable plans and policies related to transit systems. Projects would undergo environmental review on a project-by-project basis and those projects found to conflict with those plans and policies would be required to incorporate feasible mitigation measures to reduce impacts.

Permit issuance and approval, and implementation of the Draft HCP would be expected to result in the addition of 23 new employees over the 50-year permit term. This would not result in a significant increase in demand on the existing transit system. MST currently serves the former Fort Ord and its surrounding vicinity and would conceivably continue doing so throughout the permit term. Additionally, the public currently uses transit to access the recreational areas on the HMAs and would continue to do so at a conceivably similar demand in the future. Therefore, this impact would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact TRC-3: Construction Traffic Impacts.

Future development and habitat management activities may result in temporary traffic increases and traffic safety hazards, similar to standard construction activities. Future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Development projects would be subject to the applicable general plan policies that establish standards for acceptable levels of service during construction and operation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed those standards would be required to incorporate feasible mitigation measures to reduce impacts.

The temporary traffic increases would be from workers commuting to and from the HMAs to conduct various activities, such as fence repairs, maintenance, and restoration activities. Impacts associated with traffic safety hazards and construction-related nuisances could include movement of construction equipment, temporary lane or roadway closures, delays, and detours. The level of activity associated with these habitat management activities would occur over the 50-year permit term in various locations within the HMAs. Impacts associated with construction would be temporary, and

extensive traffic increases would not be likely to occur. However, the traffic safety hazards could impact traffic operations and safety, depending upon the type, location and duration of the construction activity.

Because the precise level of activity has yet to be determined, it is difficult to predict specific areas where habitat management activities in HMAs would result in traffic safety impacts related to habitat management activities. Nonetheless, these activities could result in increased traffic safety hazards. This would represent a potentially significant impact.

The potential for short-term adverse traffic safety impacts from habitat management activities in HMAs would be potentially significant, but could be mitigated to a less-than-significant level with implementation of mitigation identified below. There are no HCP Measures (e.g., AMMs or MMs) that apply. However, Mitigation Measure TRC-1 would be required and would reduce the potential impact to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Proposed Action may result in construction-related traffic impacts. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.
- **Additional Mitigation:**

Mitigation Measure TRC-1: For any habitat management activity, including restoration and maintenance activities, requiring a grading or encroachment permit from Caltrans, the Cities of Marina, Seaside, Monterey, or Del Rey Oaks, or the County of Monterey, the jurisdiction or responsible contractor shall follow the standards of that jurisdiction regarding the preparation of a traffic control plan to address construction-related traffic nuisances and public safety. Each jurisdiction would be responsible for requiring the level of traffic control that it deems appropriate for the situation. If the activity spans multiple jurisdictions, those jurisdictions shall negotiate a mutually acceptable level of traffic control for the construction activity. The traffic control plan will include the following measures:

- Through access for emergency vehicles will be provided at all times.
- Access will be maintained for driveways and private roads.
- Adequate off-street parking will be provided for construction-related vehicles through the activity period.
- Pedestrian and bicycle access and circulation will be maintained during the activity. If construction encroaches onto the trail or a sidewalk, a safe detour will be provided for pedestrians at the nearest painted crosswalk. If the activity encroaches on a bike lane, warning signs will be posted that indicate that bicycles and vehicles are sharing the roadway.
- Lane closures (partial or entire), traffic controls, and materials delivery will be restricted to between 9:00 a.m. and 4:00 p.m. on weekdays to avoid more congested morning and evening hours.
- Traffic controls on arterials and collectors should include flag persons wearing bright orange or red vests and using a “stop/slow” paddle to warn drivers.
- Access to public transit should be maintained, and movement of public transit vehicles will not be impeded as a result of the activity.
- Construction warning signs will be posted, in accordance with local standards or those set forth in the Manual on Uniform Traffic Control Devices, in advance of the activity area and at any intersection that provides access to the construction area.
- If lane closures occur, local fire and police departments will be notified of the locations, and alternative evacuation and emergency routes will be designed to maintain response times during the activity, if necessary.

- Written notification will be provided to appropriate contractors regarding appropriate routes to and from activity sites, and weight and speed limits for local roads used to access activity sites.
- A sign with the name, telephone number, and email address to contact with complaints regarding construction traffic will be posted at all active sites.

Impact TRC-4: Potential Conflicts with Transportation Plans, Programs, and Planned Projects.

The TAMC 2010 Regional Transportation Plan, the TAMC Regional Development Impact Fee, and the CIPs for FORA and the future landowning cities all contain planned transportation infrastructure projects to be constructed within the Plan Area. In addition, Marina and Seaside, as well as TAMC and the County, have all adopted bicycle master plans for the implementation of new and upgraded bicycle facilities within the Plan Area. CSUMB has identified locations for both pedestrian and bicycle infrastructure improvements within its campus through the adoption of its own campus master plan. Future development activities would be subject to these plans and programs and development would occur consistent with the Reuse Plan and local planning documents. The locations of the HMAs within the Plan Area would not obstruct the ability of these agencies to implement their proposed roadway, bicycle, and pedestrian infrastructure improvements; these improvements have been located such that they would specifically not interfere with the proposed boundaries of the HMAs. Therefore, implementation of the Plan would not represent a significant impact upon transportation plans, programs, or planned policies. Therefore, this impact would be less than significant. There are no HCP Measures (e.g. MMs or AMMs) that apply, and no additional mitigation is required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.15.2.3. Alternative 3: Reduced Take Alternative

Impact TRC-1: Traffic Circulation Impacts.

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Proposed Action (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce traffic impacts associated with these activities. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

Even with the reduction of development activities within the HMAs, traffic impacts from the construction and operation of future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Development projects would be subject to the applicable general plan policies that establish standards for acceptable levels of service. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed those standards would be required to incorporate feasible mitigation measures to reduce impacts.

Potential transportation and circulation impacts as a result of habitat management activities in HMAs could occur as a result of implementing habitat management activities and increased public use, but at a reduced level compared to those described under the Proposed Action. Therefore, the potential traffic circulation impacts under Alternative 3 would be less than the Proposed Action and would be less than significant relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact TRC-2: Transit Impacts.

Under Alternative 3, since future development activities would be the same within designated development areas and habitat management activities would be less than as described in the Proposed Action, the potential transit impacts would be less than significant relative to the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact TRC-3: Construction Traffic Impacts.

Future development and habitat management activities may result in temporary traffic increases and traffic safety hazards, similar to standard construction activities. Future development activities would be similar to the No Action Alternative, but within a larger footprint and at a faster pace. Development projects would be subject to the applicable general plan policies that establish standards for acceptable levels of service during construction and operation. Projects would undergo environmental review on a project-by-project basis and those projects found to exceed those standards would be required to incorporate feasible mitigation measures to reduce impacts.

Under Alternative 3, the habitat management activities in HMAs would be similar to those described in the Proposed Action, but at a reduced level. Habitat management activities within the HMAs may result in temporary traffic increases and traffic safety hazards, similar to standard construction activities. Potential construction-related traffic impacts under Alternative 3 would be equivalent to the impacts of the Proposed Action. Therefore, impacts from construction-related traffic would be potentially significant under this alternative. Implementation of Mitigation Measure TRC-1 would be required to reduce potentially significant impacts to a less-than-significant level.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **potentially significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **potentially significant**.

Implementation of the Reduced Take Alternative may result in construction-related traffic impacts. This represents a potentially significant impact that would be reduced to a less-than-significant level with implementation of the mitigation identified below.

Relevant HCP Measures (AMMs and MMs):

- **AMMs & MMs:** None applicable.
- **Additional Mitigation:** Implementation of Mitigation Measure TRC-1.

Impact TRC-4: Potential Conflicts with Transportation Plans, Programs, and Planned Projects.

Under Alternative 3, future development activities would be subject to the plans and programs identified above and development would occur consistent with the Reuse Plan and local planning documents, with the exception of development within the HMAs. The locations of the HMAs within the Plan Area would be the same as the Proposed Action and would not obstruct the ability of these agencies to implement their proposed roadway, bicycle, and pedestrian infrastructure improvements; these improvements have been located such that they would specifically not interfere with the proposed boundaries of the HMAs. Therefore, implementation of the Alternative 3 would not represent a significant

impact upon transportation plans, programs, or planned policies. Therefore, this impact would be less than significant. There are no HCP Measures (e.g. MMs or AMMs) that apply, and no additional mitigation is required.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.15.2.4. Cumulative Effects

Past and present development in the region has formed the existing transportation network. As development occurs and vehicle trips increase in the area, projects are implemented to improve the capacity of the network. There are roadways and highways in the project region that continue to have significant congestion despite past and present improvements. It is anticipated that development would continue the trend of generating trips and implementing other projects to improve the capacity and performance of the network. It is anticipated that the reasonably foreseeable future actions (please refer to Section 4.1.4.3) would result in similar traffic impacts. When combined with the future actions in the project area, development under the No Action Alternative may result in a cumulative increase in vehicle trips. Caltrans, FORA, TAMC, and local jurisdictions will continue to manage the transportation networks within their respective roadways. These agencies have planned and will continue to implement plans for improvements to the transportation network. The continued implementation of the regional and local transportation networks will reduce cumulative transportation impacts under the No Action Alternative; however, even with these actions, the cumulative result would continue to be an overall increase in congestion.

The implementation of the future development and habitat management activities under the Proposed Action Alternative and Reduced Take Alternative would not result in a significant increase in traffic, impact transit facilities, or conflict with applicable transportation plans. As described above, the Proposed Action Alternative and Reduced Take Alternative have the potential to result in significant construction-related traffic impacts. The implementation of Mitigation Measure TRC-1 is required to reduce potential impacts to a less-than-significant level. In addition, these alternatives must comply with applicable regulations. Therefore, the contribution to cumulative effects from the Proposed Action Alternative and Reduced Take Alternative would not be appreciably different than those identified for the No Action Alternative.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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4.16. UTILITIES

4.16.1. Methodology and Significance Criteria

The analysis contained in this section evaluates the potential physical effects associated with permit issuance and the approval and implementation of the Proposed Action and alternatives that may directly, indirectly, or cumulatively have adverse impacts to public services (including recreational facilities). Unless otherwise noted in this section, direct and indirect impacts are grouped as effects. Cumulative effects are considered separately.

As described in Section 4.1, *Introduction*, Volume 4 of the Reuse Plan and the Department of Army's FEIS previously evaluated the potential environmental repercussions associated with the disposal and subsequent reuse of the former Fort Ord at a programmatic level. The following qualitative analysis is based on currently available information, including known information regarding habitat management activities within HMAs, as well as applicable NEPA and CEQA Guidelines and guidance documents. Additional mitigation measures may be identified in the future in connection with specific projects or activities conducted as part of the habitat management activities within HMAs; these measures would be identified at the time future project or activity-specific environmental review is conducted.

The environmental effects from the development of new utility facilities associated with future development and habitat management activities are addressed in each resource section within this chapter of the EIS/EIR. For example, the analysis of effects on biological resources resulting from the development of utilities infrastructure are included in Section 4.4, *Biological Resources*. Therefore, descriptions of the physical impacts associated with the development of new utility infrastructure are not repeated in detail here.

4.16.1.1. Thresholds of Significance

For the purposes of this analysis, an impact is considered to be significant and require mitigation if it would result in any of the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Conflict with Federal, State, and local management and reduction statutes and regulations related to solid waste.

4.16.2. Impacts and Mitigation Measures

The following impact analysis focuses on both the direct and indirect effects associated with the implementation of the Proposed Action and alternatives, as well as cumulative impacts. Where necessary, mitigation measures have been identified to minimize the extent of impacts. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified. The following analysis collectively evaluates the habitat management activities within HMAs, as opposed to evaluating each of the individual habitat management activities within HMAs separately, to the extent possible. Relevant project characteristics, including Draft HCP measures (e.g., AMMs and MMs), that would minimize and/or otherwise avoid potential adverse effects are also identified.

4.16.2.1. Alternative 1: No Action Alternative

Under the No Action Alternative, the base-wide ITPs would not be issued by the Wildlife Agencies and the Draft Fort Ord HCP would not be approved or implemented by the Permittees. The No Action Alternative would consist of a reduced development footprint with development occurring at a slower pace compared to the Reuse Plan due to the anticipated need for development activities and HMP-required habitat management activities to acquire individual ITPs on a project-by-project basis. The No Action Alternative is detailed in Section 2.3.3, *Alternative 1: No Action Alternative*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. In addition, all future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs.

The impact analysis presented in the Reuse Plan EIR (pp. 4-50 through 4-61) determined the following:

- The need for new and upgraded utility systems and services and new local water supplies would be less than significant with the implementation of the identified policies and programs.
- Cumulatively, the need for new local water supplies would be unavoidable and significant.

The extent and pace of future development activities under the No Action Alternative would be less than those identified in the Reuse Plan and EIR. As a result, potential impacts to utilities and service systems from construction and operational activities associated with future development and habitat management activities under the No Action Alternative would be less than those analyzed in the Reuse Plan EIR.

Under the No Action Alternative, future development would result in the need for expanded and additional utilities. Direct impacts may result from the construction and operation of new and expanded utilities. Indirect impacts associated with operations may lead to: alteration of hydrology, soil erosion, hazardous materials exposure, noise and vibration, lighting, fencing, and vegetation removal. Provision of utilities and the infrastructure needed to provide service is included in the Reuse Plan, general plans, and other applicable planning documents. Direct and indirect environmental impacts associated with the construction of additional utilities would be addressed on a project-by-project basis. Mitigation would be proposed to reduce environmental effects to the degree feasible. The development of new or expanded utilities would be consistent with the requirements of current local plans and policies and are assumed to be sufficient to meet the growing demand as required by these plans and policies. New residential developments could substantially increase the demand for utilities. The development of new or expanded utilities would be expected to continue, in part, in response to increased demand consistent with local plans and policies. Impacts associated with individual projects would be addressed on a project-by-project basis, and individual projects would provide mitigation consistent with applicable laws, regulations, and policies.

For the HMP-required habitat management activities, only a subset or limited management activities (i.e., preservation, research, and some restoration activities) could be implemented without ITPs under the No Action Alternative. These activities would not require new or expanded utilities systems. Habitat management activities associated with additional mitigation requirements from development activities within the 1,263 acres of vegetated development areas would be required. While the specific details of the type and extent of restoration, enhancement, and other ground-disturbing activities within the mitigation lands are unknown at this time, these activities would also not require new or expanded utility systems.

4.16.2.2. Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP

The Proposed Action Alternative is detailed in Section 2.3.4, *Alternative 2: Proposed Action Alternative – Draft Fort Ord HCP*, in Chapter 2, and Section 4.1.1.3, *Approach to Analysis of Resources Considered*, in Chapter 4, of this EIS/EIR. Where the Proposed Action Alternative differs from the No Action Alternative is the increase in the development acreage and future development activities would occur at a faster pace due to the issuance of the base-wide ITPs by the Wildlife Agencies. In addition, the Proposed Action includes the adoption and implementation of the Draft HCP, including its

conservation strategy as well as the required AMMs and MMs during the implementation of covered activities. As a result, impacts to utility systems would increase from those described under the No Action Alternative.

Impact UTIL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Additional development as a result of the buildout of the former Fort Ord would result in increased need for associated utilities. The Proposed Action Alternative would result in an increase in development-related activities from those identified for the No Action Alternative, with the HCP providing a mechanism for the Wildlife Agencies to provide incidental take authorization for these lawfully undertaken covered activities. Allowable development within the HMAs may include new systems and supplies and substantial alterations to wastewater, solid waste, water distribution and stormwater infrastructure systems, as well as gas, electric, and telecommunication services, as a consequence of development and associated increases in population. The need for additional improvements to utilities would be evaluated and necessary improvements would be implemented on a project-by-project basis. Potentially significant impacts would be identified and mitigated pursuant to the requirements of each law/regulation.

The implementation of the Draft HCP is not anticipated to require or result in the relocation or construction of wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Implementation of the Draft HCP may require temporary irrigation to support habitat restoration and enhancement activities. However, irrigation needs would be temporary and minimal compared to more intensive land uses, and typically achieved by delivery with water trucks. Therefore, any effects related to water infrastructure would be less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact UTIL-2: Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Additional development as a result of the buildout of the former Fort Ord would result in increased water demand. In light of the existing, regionwide water supply shortage, this increased demand on water would represent a potentially significant impact. As stated in Chapter 3, the Army has allocated a maximum of 6,600 acre-feet (AFY) of water throughout the entire former Fort Ord base. Similar to the No Action Alternative, the Proposed Action Alternative includes future development (within a larger footprint and faster pace), which would result in an additional need for water. The need for additional water supply would be evaluated and necessary improvements would be implemented on a project-by-project basis. Potentially significant impacts would be identified and mitigated pursuant to the requirements of each law/regulation. As a result, impacts associated with insufficient supply of water resulting from covered activities under the Proposed Action Alternative would not be appreciably different from those under the No Action Alternative.

As discussed in Impact UTIL-2, implementation of the Draft HCP may require temporary irrigation water to facilitate habitat restoration and enhancement activities. However, no permanent water source would be required. Therefore, this impact is less than significant.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact UTIL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Additional development as a result of the buildout of the former Fort Ord would result in increased demand for wastewater treatment. As stated in Chapter 3, wastewater would be collected through a collection system owned by MCWD and transported to the M1W Regional Treatment Plant. The Regional Treatment Plant has a design and permitting capacity of 29.6 MGD, a permitted capacity of 29.6 MGD, and existing flows of varying between 17-18 MGD reduced from previous years when flows averaged 19-21 MGD and from the flows reported in the Reuse Plan EIR which reported average existing flows of 20 MGD. Thus, future development within the former Fort Ord area would not be constrained by wastewater system capacity. Since development under the Proposed Action Alternative would be consistent with the Reuse Plan EIR, this impact is less than significant.

Implementation of the Draft HCP would not result in an increase of wastewater that would exceed capacity. This is a less than significant impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

Impact UTIL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Similar to UTIL-3 above, with the buildout of the former Fort Ord would result in increased demand for solid waste disposal. Since development under the Proposed Action Alternative would be consistent with the Reuse Plan EIR, this impact is less than significant. Thus, future development within the former Fort Ord area under the Proposed Action Alternative would not generate solid waste in excess of State or local standards, or in excess of the capacity or otherwise impair the attainment of solid waste reduction goals.

Implementation of the Draft HCP would not result in a significant increase in solid waste. This is a less than significant impact.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.16.2.3. Alternative 3: Reduced Take Alternative

As described in Chapter 2, *Proposed Action and Alternatives*, the Reduced Take Alternative would consist of a reduced amount of covered activities than the Proposed Action; however, covered activities would occur within the same Plan Area, cover the same HCP species, and include the same Permittees and land management structure as the Proposed Action. Under this alternative, future development activities would occur as proposed under the Proposed Action within the designated development areas (i.e., existing developed areas and natural lands areas). Habitat management activities within HMAs would be similar as described in the Draft HCP (please refer to Section 2.3.4, *Alternative 2: Proposed Action*). However, with the reduction in take, there would also be a reduction in the mitigation requirements. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area, which would reduce impacts to utilities and service systems. In addition, any development activities within HMAs, including allowable development as well as future road and infrastructure projects (i.e., Inter-Garrison Road Widening, MCWD, FORTAG, and Marina Airport Expansion) would not occur unless take is avoided. This alternative would eliminate 883 acres of development within the HMAs. This would require increased development density within the designated

development areas to allow for future road corridors and infrastructure, as well as recreational facilities, to be established within the designated development areas.

The Reduced Take Alternative includes future development activities and the implementation of the Draft HCP and associated conservation strategy, AMMs, and MMs. Where the Reduced Take Alternative differs from the Proposed Action Alternative and No Action Alternative is the reduction of development activities within the HMAs and the subsequent reduction in habitat management activities. Since the future development and habitat management activities would be generally similar as the Draft HCP, the level of impact would be the same as described in Impacts HAZ-1 through HAZ-9 when compared to the No Action Alternative, although slightly reduced for some impacts.

Therefore, for Impacts UTIL-1 through UTIL-4:

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

No mitigation is required.

4.16.2.4. Cumulative Effects

Development in the project area over the past century has resulted in an increase in the amount of land converted into residential, commercial, and other uses. This past development has resulted in an increased demand for utilities to accommodate increased populations. Projects and activities under the No Action Alternative would continue the trend of increasing the demand for utilities and could combine with the reasonably foreseeable future actions in the project area (please refer to Section 4.1.4.3) to result in a larger cumulative increase in demand for the associated resources. Consistent with the Reuse Plan and local plans, further development of public and recreational facilities would occur as planned development proceeds under the No Action Alternative. Individual projects would be required to determine if an increase in demand would occur and if there is a need for new or expanded facilities, and either provide these facilities directly or fund or otherwise support provision of needed facilities. It is anticipated that future development under the No Action Alternative, as well as future actions in the project area, would comply with policies set forth in the Reuse Plan and local plans. Habitat management activities under the No Action Alternative would not result in a significant demand for utility systems.

The future development activities under the Proposed Action Alternative and Reduced Take Alternative would result in the need for additional utilities. However, development activities would be consistent with the Reuse Plan and would be required to evaluate and implement any necessary improvements on a project-by-project basis. Potentially significant impacts would be identified and mitigated pursuant to the requirements of each law/regulation. As described above, the implementation of the Draft HCP would not result in significant demands on utility systems. Therefore, the implementation of the Proposed Action would not result in a significant contribution to a cumulative effect on utility systems.

NEPA Level of Significance: As compared to the No Action Alternative, this impact is **less than significant**.

CEQA Level of Significance: As compared to Existing Conditions, this impact is **less than significant**.

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CHAPTER 5. OTHER REQUIRED NEPA AND CEQA ANALYSES

5.1. INTRODUCTION

NEPA and CEQA both require an EIS/EIR to evaluate a number of other types of environmental impacts. The analysis required under NEPA and CEQA is in many cases similar; therefore, the NEPA and CEQA required analyses in this section are grouped as appropriate.¹

5.2. SIGNIFICANT AND UNAVOIDABLE IMPACTS

No significant and unavoidable impacts were identified in this EIS/EIR. None of the action alternatives (i.e., Proposed Action Alternative and Reduced Take Alternative) have significant and unavoidable impacts when comparing the action alternatives to the No Action Alternative under NEPA or Existing Conditions under CEQA.

5.3. RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY (NEPA)

In accordance with NEPA, Section 102 (40 U.S.C. 4332), an EIS must include a discussion of the relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity. The action alternatives are intended to ensure the long-term productivity of the environment, despite the short-term uses of the environment. Short-term impacts of the alternatives were evaluated in Chapter 4, *Environmental Consequences*. Specific resources that could be affected by the implementation of alternatives include aesthetics, air quality, biological resources, greenhouse gas emissions/climate change, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology, land use and planning, noise, public services, socioeconomics and environmental justice, and transportation. Short-term uses would be temporary in nature and would be mitigated, as described in this EIS/EIR. For example, although the habitat management activities under the Draft HCP for both action alternatives would result in some loss of habitat and impacts to sensitive species, these activities would be undertaken pursuant to the terms of the Draft HCP, temporary in nature, and beneficial in the long-term for the species and ecosystem as a whole. The Draft HCP provides for a comprehensive mechanism to avoid, minimize, and mitigate for impacts to sensitive species and communities from covered activities. The Draft HCP includes measures to ensure that long-term conservation and enhancement measures are in place before the short-term and long-term impacts of covered activities occur.

5.4. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES (NEPA)/SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES (CEQA)

In accordance with NEPA, Section 102 (40 U.S.C. 4332), an EIS must explain which environmental impacts of a proposed action are irreversible or would result in an irreversible commitment of resources, such as consumption of fossil fuels. CEQA similarly requires an EIR to discuss uses of nonrenewable resources that would occur during the initial phases and the continued operation of a project (CEQA Guidelines §15126.2(c)).

The Proposed Action and alternatives would result in a minor irreversible commitment of fossil fuel resources associated with the construction and operation of future development and implementation of habitat management activities. The action alternatives would result in an irreversible commitment of fossil fuel resources for habitat restoration and enhancement activities, as well as irreversible commitment of fossil fuels to perform surveys, manage the administrative functions of the action alternatives, and maintain and operate the reserve system. No specific development activities (i.e., Category 2 – development activities) are authorized under the action alternatives that would result in the irreversible commitment of resources; however, development as described in the Reuse Plan and other planning documents is included as a covered activity to varying degrees.

¹ Cumulative Effects/Impacts are addressed in Chapter 4, *Environmental Consequences*, within the analysis of each environmental topic.

5.5. ENVIRONMENTALLY PREFERABLE/SUPERIOR ALTERNATIVE

Both NEPA and CEQA require the identification of an environmentally preferable (CEQ NEPA Guidelines, Section 1505.2[b]) or superior (CEQA Guidelines, Section 15126[e][2]) alternative. The environmentally preferable and superior alternative is the alternative that would result in the least damage to the environment. Based on the analysis presented in Chapter 4, the conservation strategy provided by Alternative 2, Proposed Action Alternative, and Alternative 3, Reduced Take Alternative, ensure each of the two action alternatives is environmentally superior to the No Action Alternative. The action alternatives would provide the most comprehensive approach to habitat conservation, with the greatest potential for long-term benefits to the HCP species.

Because the action alternatives implement the conservation strategy of the HCP, they have the same number of potentially significant impacts and all are reduced to a less-than-significant level with mitigation. The Proposed Action Alternative results in one additional beneficial impact associated with potential impacts to employment, commerce, and industry; this alternative was determined to have a beneficial impact rather than a less-than-significant impact since it included more covered activities which would provide a greater economic benefit. Generally, the two action alternatives resulted in very similar impacts. However, for many of the impacts, the Reduced Take Alternative would result in less of an environmental effect than the Proposed Action Alternative since development activities would not occur within the HMAs. However, whether a reduced effect were to occur and to what degree is largely dependent on whether changes in the type or extent of development in the locations considered under each alternative results in development being displaced to another location and the conditions at the new location. For example, development density within the designated development areas would increase to allow for future road corridors and infrastructure, as well as recreational facilities to be established within the designated development areas. Under the Reduced Take Alternative, with the reduction in take, there would also be a reduction in the mitigation requirements in the Draft HCP conservation strategy. Therefore, there would be incrementally less overall habitat enhancement, restoration, and creation activities in the Plan Area. Because the Proposed Action Alternative has the potential to result in similar environmental impacts compared to the Reduced Take Alternative while increasing the conservation benefits, it is considered the environmental preferable/environmentally superior alternative.

5.6. GROWTH INDUCEMENT

CEQA requires that an EIR discuss the extent to which a proposed project would directly or indirectly foster economic or population growth, or the construction of new housing, including removing obstacles to growth that may result in significant environmental effects (CEQA Guidelines Sec. 15126.2(d)). NEPA does not provide any direct guidance with respect to the evaluation of potential growth-inducing effects. CEQ guidelines, however, require that an EIS evaluate the potential indirect effects of an action. These effects may occur later in time or farther away in distance, but are still considered reasonably foreseeable (CEQ NEPA Regulations §1508.8(b)).

Implementation of the action alternatives and the subsequent issuance of incidental take permits would provide a regulatory mechanism for the compliance of ESA and CESA. As described in Section 3.12, *Socioeconomics and Environmental Justice*, the adoption of the Draft HCP under both action alternatives would streamline the development review process for projects located within the boundary of the former Fort Ord from the perspective of ESA and CESA compliance (please also refer to Section 4.8, *Land Use and Planning*, as well as Section 4.12, *Socioeconomics and Environmental Justice*). Future development that is included as a covered activity under the action alternatives is considered planned development because it is derived directly from the Reuse Plan, local plans, and transportation plans. The direct and indirect impacts of this planned growth and any mitigation requirements is provided under the Reuse Plan and other applicable plans, as well as under project-specific environmental compliance that would be required for specific developments in the future. All future development activities would be required to comply with all applicable Fort Ord Reuse Plan and/or applicable land use plan goals, policies, and implementation measures, as well as the applicable programmatic mitigation measures identified in each of the respective plan EIRs. Future development would presumably still be able to proceed under the existing project-by-project permit approval process.

The action alternatives could *indirectly* cause potential growth-inducing impacts by providing a regulatory mechanism to comply with ESA and CESA. Indirect effects could occur in connection with future development within the Plan Area

that may occur because of an established mechanism for ESA and CESA compliance. The action alternatives would not, however, cause and/or otherwise indirectly facilitate additional development beyond previously planned levels or regional growth projections developed by AMBAG. Future development that is assessed as part of the action alternatives' impact analysis, and is covered under the ITPs, is derived directly from the general plans of the local land use agencies, the Reuse Plan, and adopted general plan(s) and master plans for BOT/CSUMB, UC, and State Parks. The development projections contained in those planning documents were previously evaluated in accordance with the requirements of CEQA. As a result, the action alternatives are not anticipated to indirectly facilitate additional development beyond planned levels. The direct and indirect impacts of this planned growth and any mitigation requirements are provided under the applicable general plan(s), master plan(s), and Reuse Plan EIRs for each of the respective jurisdictions.

The term of the Draft HCP and take permits would extend beyond the planning horizons of the Reuse Plan, applicable general plan(s), and master plan(s). Although the term of the Draft HCP extends beyond the planning horizons of applicable planning documents affecting development with the former Fort Ord, redevelopment activities would only be allowed to occur within previously designated development parcels and development parcels with restrictions. Limited infrastructure would be permitted within the HMAs; planned infrastructure is intended to accommodate planned growth according to the Reuse Plan and other documents. The Draft HCP would not induce future growth beyond existing levels, despite the Draft HCP extending beyond the planning horizons of applicable planning documents. Other factors would be more limiting to this growth than the attainment of take authorization (i.e., water supply availability, transportation infrastructure, etc.). In addition, any future development within the former Fort Ord, including any amendments to the growth assumptions contained in applicable planning documents, would be subject to project-specific environmental review.

In summary, the Draft HCP under the action alternatives would provide a streamlined mechanism for compliance by specific projects with ESA and CESA. An improved permitting mechanism would not remove a barrier to growth, but would perhaps lower it. Under the action alternatives, permit approval would be easier for development applicants to secure, resulting in improved development efficiencies and potential development cost savings. The efficiencies and costs under the Draft HCP would affect development differently. Nevertheless, without the Draft HCP development within the former Fort Ord would presumably continue to occur with projects obtaining project-by-project take permits. Moreover, the rate and pace of development within the former Fort Ord is influenced by a variety of economic factors, population growth, housing supply, and other environmental and growth management related requirements. While the Draft HCP under the action alternatives would provide a regulatory mechanism for ESA and CESA, it would not directly cause growth-inducing impacts, but rather would accommodate growth that is already planned in the areas of the former Fort Ord.

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