Chapter 4.

Habitat Management for Disposal and Reuse

Monterey Spineflower

Chapter 4. Habitat Management for Disposal and Reuse

INTRODUCTION AND BACKGROUND

A general goal of this habitat management plan (HMP) is to promote preservation, enhancement, and restoration of habitat and populations of HMP species while allowing development on selected properties that promotes economic recovery after closure of Fort Ord. (Specific HMP goals are described in Chapter 1.) As an installation-wide plan, all parcels to be disposed of by the U.S. Army (Army) are addressed in this HMP and are considered in achieving HMP goals. However, management guidelines and specifications for reuse may vary from parcel to parcel based on future plans for the parcel associated with this HMP and overall reuse planning.

Some parcels to be disposed of by the Army are intended to promote economic recovery after disposal and will be designated for development with no restrictions or guidelines described in this HMP. Other parcels will have development designated as the primary use, but recipients of disposed land will be obligated to implement certain guidelines and/or preserve specific areas through this HMP. Other parcels are designated as habitat reserves or corridors and have specific management guidelines and restrictions on development and uses. The HMP also includes consideration of specific transportation corridors planned by the local community. (Refer to the "HMP Analysis of Road Corridors" section in Chapter 4).

Attachment A shows each parcel proposed for reuse and indicates the HMP requirements planned for the parcel: Habitat Reserve, Habitat Corridor, Development with Reserve Areas or Development with Restrictions, Borderland Development Areas Along NRMA Interface, Development, and Future Road Corridors. The management requirements for lands covered by this HMP are grouped in several categories. These categories have varying levels of restriction on development and intensities of habitat management requirements. The management categories are mapped in Figure 4-1.

Habitat Reserve

The "Habitat Reserve" category is the core to achieving the goals of the HMP. These lands are set aside from development to protect biologically important habitat for the HMP target species; the main management goal for this category is the conservation and enhancement of threatened and endangered species. The lands are to be set aside from public mining laws and other nondiscretionary land laws that jeopardize attainment of the primary management goal. Management of Habitat Reserve areas must be undertaken by a land management agency acceptable to the USFWS. The HMP describes specific management goals, procedures for enhancement and restoration, and methods of funding for each reserve parcel. The HMP also clearly establishes who will be responsible for monitoring operations and maintenance activities, conducting status surveys, and funding of overall management activities. The requirements to avoid and restore habitat disturbed within the habitat reserve areas for operation, maintenance, and replacement of utility systems within utility easement areas in the reserves will be the same as applied to the fee title grantee of the habitat reserve area. Coordination and permitting of the proposed actions will be the responsibility of the easement interest grantee. In general, landowners are expected to fund management of biological resources on reserve parcels. These requirements for the habitat reserve areas are contained in the USFWS Biological/Conference Opinion.

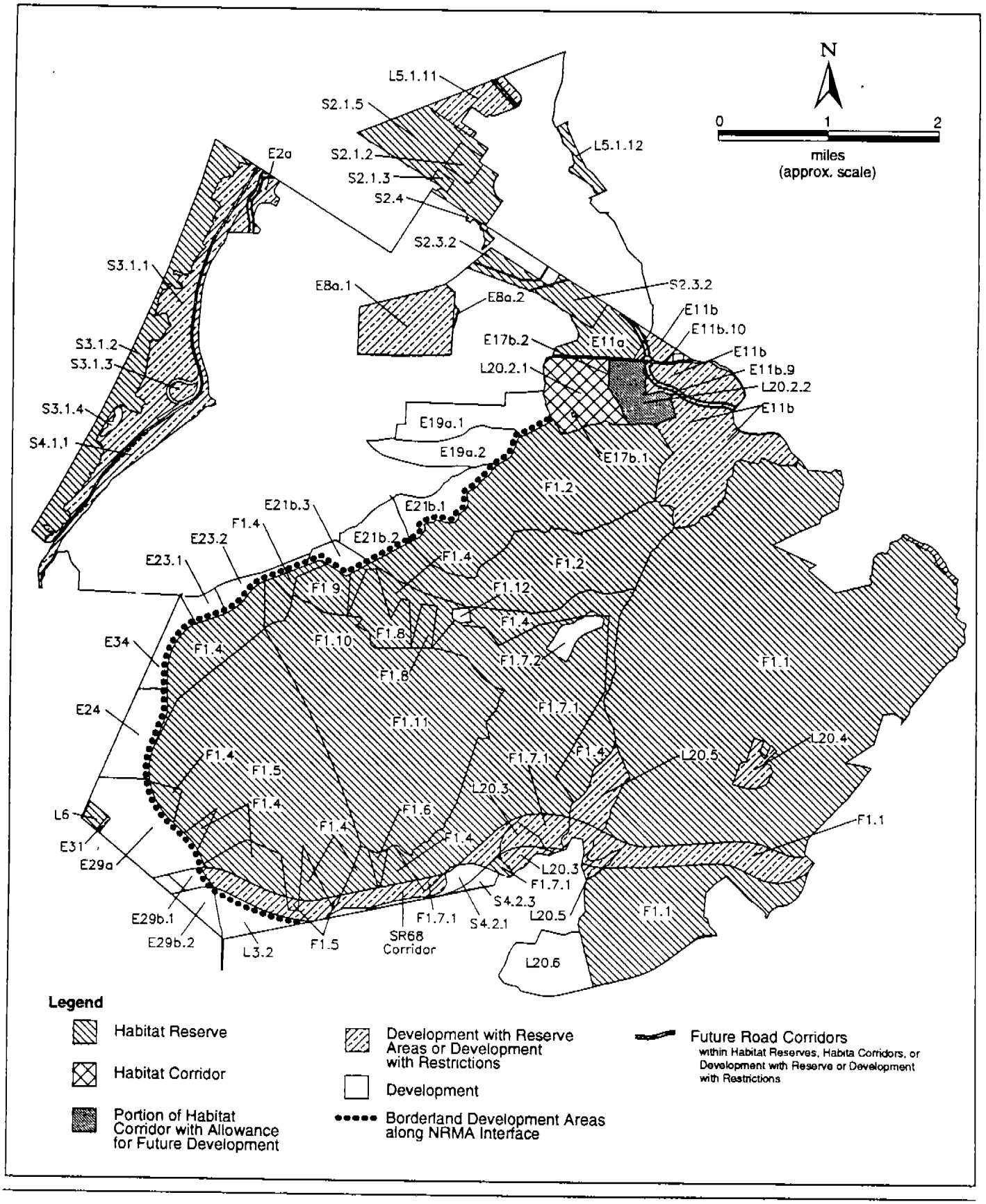

Figure 4-1
Habitat Mangement Plan Map for Former Fort Ord (December 1996)

Habitat Corridor

"Habitat Corridor" areas require management strategies that promote maintenance of connections between conservation areas. While these corridors may be exposed to some land management practices other than those that emphasize conservation of biological resources (parcel L20.2.2 allows for expansion of existing developed facilities as well as corridor conservation), corridors are important to the ecological integrity of reserve areas. These lands must be managed to protect existing sensitive species in perpetuity and remain viable to support the dynamics of the ecological systems within former Fort Ord. Corridor areas must be managed by entities acceptable to the USFWS. The requirements to avoid and restore habitat disturbed within the corridor area for operation, maintenance, and replacement of utility systems within utility easement areas will be the same as applied to the fee title grantee of the corridor area. Coordination and permitting of the proposed actions will be the responsibility of the easement interest grantee.

Development with Reserve Areas or Development with Restrictions

Some of the lands slated for development in the HMP contain inholdings of habitat reserve land or require development restrictions to protect habitat within or adjacent to the parcel. This management category is titled "Development with Reserve Areas or Development with Restrictions". For development parcels that have habitat reserve areas within their boundaries, the management practices must be consistent with maintenance of the reserves. The inholding reserve areas are subject to the same management conditions described above for the Habitat Reserve category, including management by an entity acceptable to the USFWS. Some developed land must be managed as described for the specific parcel to include development restrictions or management action. Some of the lands in this category have no reserve inholding; they are subject only to certain restrictions on development needed to protect biological resource values. These parcels include E31, L20.3, and L20.4; there is no requirement that these areas be managed by an entity acceptable to the USFWS and these parcels may be transferred for development with appropriate deed restrictions.

Borderland Development Areas Along NRMA Interface

"Borderland Development Areas Along NRMA Interface" include parcels expected to be transferred to FORA as economic development conveyance and one parcel expected to be transferred to York School through a public benefit conveyance. The properties abut the Natural Resource Management Area and have no management restrictions except along the development/reserve interface. Management requirements such as development of fire breaks and limitation to vehicle access are required along the interface. Remaining portions of these parcels have no HMP development restrictions designed to protect biological resources. The management requirements would be the responsibility of FORA or other recipients and would apply to agencies receiving lands from FORA.

Development

Lands designated as "Development" have no management restrictions placed upon them as a result of this HMP. The biological resources found on these parcels are not considered essential to the long-term preservation of sensitive species at former Fort Ord. The Biological Opinion allows for development of these parcels, but it also requires identification of sensitive biological resources within these parcels that may be salvaged for use in restoration activities within reserve areas. The HMP does not exempt future landowners from complying with environmental regulations enforced by federal, state, and local agencies. This includes compliance with the federal ESA. However, implementation of the HMP will simplify future regulatory compliance by allowing USFWS and DFG to issue the permits and take authorizations easily.

Future Road Corridor

Several of the reserve areas have "Future Road Corridor" designations within their boundaries. These road corridors allow for development of roads and other transit facilities in the future. Before use as corridors, these areas are subject to the same management restrictions as reserve areas.

Parcel Designations

Each parcel is numbered in Attachment A. The letter before each parcel number identifies the type of agency expected to receive the parcel and/or the anticipated method of transfer. The methods of transfer include public benefit conveyance, economic benefit conveyance, negotiated sale, and auction or private sale. The type of conveyance will not affect how the HMP requirements are implemented. The HMP requirements will be placed in the deed transferring the property for any of these means of transfer. The letter F before a parcel number indicates a Federal Transfer Parcel; an S indicates a State Transfer Parcel; an L indicates a Local Transfer Parcel under a public benefit conveyance (PBC); and an E indicates a parcel available for an Economic Development Conveyance (EDC) or other method of transfer. Parcel numbers beginning with an E correspond to polygon numbers included in the Draft FORA Fort Ord Reuse Plan (March 1996).

Numbers are based on a parcel map for former Fort Ord lands. The parcel map frequently defines parcels as subparcels; for example, the Natural Resources Management Area (NRMA) contains subparcels F1.1 through F1.11, except parcel F1.7.2. Subparcels are identified as necessary to describe specific parcels.

For parcels that have already been disposed of, parcel boundaries match the boundaries included in the disposal documents. Table 4-1 identifies each parcel by number, describes the general land use planned for the parcel, and indicates whether the parcel would be transferred to a federal, state, or local agency or available for transfer through an EDC or other method.

Because this HMP will affect future regulatory compliance during reuse, these effects are discussed in the following section. Impacts on listed species from development of all development areas in Figure 4-1 are then described beginning on page 4-10, followed by an analysis of impacts associated with Alternative 6R from the 1993 final environmental impact statement (FEIS); Alternative 6R modified (6RM) from the 1993 NEPA Record of Decision (ROD); and Alternative 7 (1994 FORA Final Base Reuse Plan [December 1994]), Revised Alternative 7 (including elements of the Draft FORA Fort Ord Reuse Plan [March 1996]), and Alternative 8 from the Final Supplemental Environmental Impact Statement (FSEIS). Overall management guidelines for recipients of disposed land are also described followed by a discussion of several proposed road corridors and how they relate to this HMP. Land use parcels are then discussed separately in this chapter. Parcels considered primary conservation areas are discussed first, followed by parcels identified for development with reserve areas or development with restrictions, then parcels with no HMP requirements are discussed (as shown in Table 4-1). The general location of the parcel is described, then the recipient or a description of the proposed land use within the parcel provided, the major habitat features and HMP resources currently within the parcel are listed, and resource conservation requirements and habitat management requirements, if any, are described. The resource conservation requirements section describes areas of natural habitat that must be preserved in a parcel. The management requirements section describes management actions necessary to assist in conserving HMP resources within a parcel or in adjacent parcels. The HMP acknowledges that future data on species distribution and occurrence will be gathered over time. This data will be coordinated through the coordinated resource management and planning process (CRMP) and will not affect this HMP. The parties responsible (if known) for habitat management activities to take place within the parcel are also identified at the end of each section. After all parcels have been addressed, methods for implementing a CRMP process are described.

Table 4-1. Fort Ord HMP Parcel Designations

Text Order	Page Numbers	Parcels	Parcel Title	Land Use Description
			Federal Lands with Habitat Reserves	
1	4-23	F1.1-F1.11, except F1.7.2	Natural Resource Management Area (NRMA)	Habitat Reserve
			State Lands with Habitat Reserves	
2	4-26	S3.1.2	Coastal Dune Zone	Habitat Reserve
3	4-27	S2.1.2*, S2.1.3*, S2.1.5*	UC/NRS Fort Ord Natural Reserve	Habitat Reserve
4	4-29	S2.3.2*	Reservation Road Habitat Reserve	Habitat Reserve
5	4-30	S2.4*	Habitat Reserve/Corridor	Habitat Reserve
			Local Agency Lands with Habitat Reserves	
6	4-31	L5.1.12	Salinas River Habitat Area	Habitat Reserve
7	4-32	L6	Natural Area Expansion	Habitat Reserve
			Economic Development Conveyance Lands with Habitat Reserves	
8	4-33	E11a	East Garrison	Habitat Reserve
			Local Agency Lands with Habitat Corridors	
9	4-34	L20.2.1, L20.2.2	Habitat Corridor/Recreational Vehicle Park/Youth Camp	Habitat Corridor/Recreation
			Federal Lands with Development with Reserve Areas or Development with Restrictions	
			No federal lands are in this category	
			State Lands with Development with Reserve Areas or Development with Restrictions	
10	4-37	S3.1.1, S3.1.3	Disturbed Habitat Zone	Development with Reserve Areas or Development with Restrictions
11	4-40	S4.1.1, S4.1.2, S4.1.3	Highway 1 Corridor	Development with Reserve Areas or Development with Restrictions
24	4-53	Transportation Easement	State Route 68 Corridor	Development with Reserve Areas or Development with Restrictions
			Local Agency Lands with Development with Reserve Areas or Development with Restrictions	
12	4-41	L5.1.11	North Fritzsche Habitat Reserve	Development with Reserve Areas or Development with Restrictions
13	4-42	L20.3, L20.5	Recreation Area Expansion #1	Development with Reserve Areas or Development with Restrictions
14	4-44	L20.4	Recreation Area Expansion #2	Development with Reserve Areas or Development with Restrictions

Table 4-1. Continued

Text Order	Page Numbers	Parcels	Parcel Title	Land Use Description
		Economic Development Conveyance Lands with Development with Reserve Areas or Development with Restrictions		
15	4-46	E8a.1, E8a.2	Landfill Parcel	Development with Reserve Areas or Development with Restrictions
16	4-47	E31	Office Park	Development with Reserve Areas or Development with Restrictions
17	4-48	E2a	No title	Development with Reserve Areas or Development with Restrictions
18	4-49	E11b.1-E11b.8, E11b.11	East Garrison	Development with Reserve Areas or Development with Restrictions
		Federal Lands with No HMP Requirements		
19	4-51	F1.4.1, F1.7.2, F1.12, F2.1, F2.2, F2.3, F2.4, F2.5, F2.6, F2.7.1, F2.7.2, F2.7.3, F2.8, F2.9, F3, F4, F5.1, F5.2, F6	Federal Agency Parcels with No HMP Requirements	Development
		State Lands with No HMP Requirements		
20	4-51	S1.1,* S1.2.1,* S1.2.2,* S1.2.3,* S1.3.1,* S1.3.2,* S1.3.3,* S1.3.4,* S1.4,* S1.5.1,* S1.5.2,* S1.6*, S1.7,* S2.1.1,* S2.1.4,* S2.2.1,* S2.2.2,* S2.2.3,* S2.3.1,* S2.5.1,* S2.5.2,* S3.1.4, S3.2, S4.2.1, S4.2.2, S4.2.3, S4.3	State Agency Parcels with No HMP Requirements	Development

Table 4-1. Continued

Text Order	Page Numbers	Parcels	Parcel Title	Land Use Description
		Local Agency Lands with No HMP Requirements		
21	4-52	L1.1, L1.2, L2.1, L2.2, L2.3, L3.1, L4.1, L4.2, L5.1, L5.1.1, L5.1.2, L5.1.3, L5.1.4, L5.1.5, L5.1.6, L5.1.7, L5.1.8, L5.1.9, L5.1.10, L5.2, L5.4.1, L5.4.2, L5.5, L5.6, L5.7, L5.8.1, L5.8.2, L5.9.1, L5.9.2, L5.10, L7.1, L7.2, L7.3, L7.4, L7.5, L7.6, L7.7, L8.1, L8.2, L8.3, L9.1.1, L9.1.2, L9.2, L9.3, L10.1, L10.2, L10.3, L10.4, L11, L12.1, L12.3, L13.1, L13.2, L14, L15.1, L15.2, L15.3, L16, L17.1, L17.2, L18, L19, L20.6, L20.7, L20.9, L20.10.1, L20.10.2, L20.10.3, L20.11.1, L20.11.2, L20.12, L20.13, L20.14.2, L20.15, L20.16, L20.17.1, L20.17.2, L20.18, L21, L22, L23.1.1, L23.1.2, L23.1.3, L23.1.4, L23.1.5, L23.2. L23.4, L23.5, L24, L25, L27, L28, L29, L30, L31, L32, L33, L34, LE12.2**, LE20.16**, LE5.9**	Local Agency Parcels with No HMP Requirements	Development

Table 4-1. Continued

Text Order	Page Numbers	Parcels	Parcel Title	Land Use Description
			Existing Roads in HMP Management Areas	
22	4-52	L20.8, L20.14.1, L20.19, L20.20, L20.21, L20.22, LE20.18**, LE20.19**	Existing Roads in the HMP Management Areas	Development
			Economic Development Conveyance Lands with No HMP Requirements	
23	4-53	E2b.1, E2b.2, E2b.3, E2c.1, E2c.2, E2c.3, E2c.4, E2d, E2e, E4.1, E4.2, E4.3, E4.4, E4.5,. E4.6, E4.7, E5a, E5b, E11b.9, E11b.10, E11b.12, E15.1, E15.2, E17b.1, E17b.2, E18.1, E18.2, E18.3, E18.4, E19a.3, E20b, E20c.1.1, E20c.1.2, E20c.1.3, E20c.2.1, E20c.2.2, E21a, E29, E29b.3, E29e, E35, E36	Economic Development Conveyance (EDC) Parcels with No HMP Requirements	Development
			Borderland Development Areas Along NRMA Interface	
25	4-56	L3.2, E19a.1, E19a.2, E21b.1, E21b.2, E21b.3, E23.1, E23.2, E24, E29a, E29b.1, E29b.2, E34	Borderland Development Areas Along NRMA Interface	Development

* These areas are part of the California State University and University of California Economic Development Conveyances.

** LE parcels are areas where easements are proposed for transfer to local agencies.

FUTURE REGULATORY COMPLIANCE

The HMP does not exempt future landowners from complying with environmental laws and regulations enforced by federal, state, and local agencies. These laws include the federal Endangered Species Act (ESA). Section 9 of the ESA prohibits take of wildlife species listed as threatened or endangered, removal of listed plant species occurring on federal land, or destruction of listed plant species in violation of any state laws and may trigger the need to obtain an incidental take permit under Section 10(a)(1)(B) of the act. Section 7 of the act prohibits a federal agency from authorizing, funding, or carrying out any action that would be likely to jeopardize the existence of a listed species or adversely modify its critical habitat. Future landowners will also be required to comply with applicable measures for conservation of state-listed threatened and endangered species under the California ESA, California Environmental Quality Act (CEQA), and local land use regulations and restrictions. However, implementation of this HMP is intended to simplify future regulatory compliance by allowing the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (DFG) to rely on the HMP in carrying out their regulatory responsibilities.

This HMP is intended to support binding legal agreements among receiving entities, the Army, and the USFWS that would establish plans to manage lands designated for natural resource conservation. This HMP describes management goals; provides procedures for the enhancement, restoration, and management of parcels with HMP resource conservation requirements or management requirements; and identifies methods to fund these activities.

The HMP is intended to provide the foundation for a prelisting agreement between USFWS and local jurisdictions for candidate species covered by the HMP that may be listed in the future and a habitat conservation plan(s) (HCP[s]) to support issuance of a Section 10(a)(1)(B) incidental take permit for listed species. The HMP requires that its provisions be carried out by all land recipients that will receive parcels of land that are subject to management and/or use restrictions under the HMP. Likely recipients of land will include the Fort Ord Reuse Authority (FORA), U.S. Bureau of Land Management (BLM), state and local general and special purpose government agencies, and other successor owners of former Fort Ord lands. Compliance with the terms of the HMP will be required as a condition of conveyance in the document of transfer of the affected parcels. To the extent permitted by law, a compliance provision will be included as a covenant or restriction in any deed conveying lands subject to habitat conservation requirements. If it is not legally possible to place such restrictions in the deed, a legally binding memorandum of agreement will be executed with the recipient, requiring that the HMP be implemented.

The HMP would be considered suitable mitigation for impacts to HMP species and would facilitate the USFWS procedures to authorize incidental take of these species by participating entities as required under Section 10 of the ESA. The HMP does not authorize incidental take by entities acquiring land at former Fort Ord of any species listed as threatened or endangered under the ESA, as amended. Entities would submit the HMP in combination with additional documentation, including an Implementation Agreement signed by all parties receiving lands that are to be managed for wildlife values, to the USFWS to receive authorization for incidental take. In addition, the HMP is intended to be the basis for an HCP(s) that will support the issuance of incidental take permits under Section 10(a)(1)(B) of the ESA to the land recipients identified above. The provisions of the HCP(s) are expected to closely mirror the provisions of this HMP, and the implementing agreement developed to implement the HCP(s) is expected to establish detailed provisions for monitoring of the habitat conservation areas by the affected land recipients and reporting of habitat conditions to the U.S. Bureau of Land Management (BLM), USFWS, and DFG consistent with the procedure outlined below. The intention of the HMP is that no further mitigation will be required to allow development in Development areas unless species other than HMP target species are proposed for listing or are listed.

However, on lands with HMP resource conservation and management requirements, supporting documentation in addition to this HMP may be necessary to obtain incidental take authorization from USFWS. Section 9 of the ESA prohibits any taking of a threatened or endangered fish and wildlife species. The

definition of "take" includes to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. Exemptions to Section 9 can be obtained through Sections 7 and 10 of the ESA. The USFWS has recommended that all nonfederal entities acquiring land at former Fort Ord apply for Section 10(a)(1)(B) incidental take permits for the species covered in the HMP. Although the USFWS will not require further mitigation from entities that are in conformance with the HMP, those entities without incidental take authorization would be in violation of the ESA if any of their actions resulted in the take of a listed animal species.

To apply for a Section 10(a)(1)(B) incidental take permit, an entity must submit an application form (Form 3-200), a complete description of the activity sought to be authorized, the common and scientific names of the species sought to be covered by the permit, and a conservation plan (50 CFR 17.22[b]). Pursuant to 50 CFR 17.22(b)(1)(iii), the HCP must specify (a) the impacts that will likely result from such takings; (b) what steps the applicant will take to monitor, minimize, and mitigate such impacts, the funding that will be available to implement such steps, and the procedures to be used to deal with unforeseen circumstances; (c) what alternative actions to such taking the applicant considered and the reasons why such alternative are not proposed to be utilized; and (d) such other measures that the director of the USFWS may require as being necessary or appropriate for purposes of the plan. For the USFWS to issue incidental take permits to any entities acquiring land at former Fort Ord, that entity will have to provide the above information.

The basic mechanism for implementing HMP requirements to this point has been by memoranda of agreement (MOAs). HMP requirements have been placed on land transfers to UCSC and BLM using MOAs. The Army proposes to place restrictions on all future transfer of Habitat Reserve, Habitat Corridor, Development with Reserve Areas or Development with Restrictions, and Borderland Development Areas Along NRMA Interface with dead restrictions. See Appendix D for a sample deed and MOA.

For compliance with the California ESA, this HMP may simplify the issuance of take authorization by DFG for take of HMP species and further facilitate coordination with DFG regarding future regulatory compliance concerning endangered and threatened species issues in the HMP Planning Area.

The HMP provides a foundation for prelisting agreements between USFWS and recipient landowners.

To coordinate this HMP with CEQA compliance, DFG may take into account the conservation measures set forth in this HMP when considering CEQA requirements for sensitive species and habitat types. DFG would consider the conservation program for HMP species and their habitats included in this HMP as adequate mitigation for CEQA compliance for those natural resources during the implementation of land reuse and development planning at former Fort Ord. Issues, such as oak woodland mitigation, outside the scope of this HMP would need to be considered under CEQA.

IMPACTS ON LISTED AND PROPOSED HMP SPECIES

The following sections summarize the impacts on federally and state-listed HMP target species and HMP species proposed for federal listing, if all development areas identified in Attachment A and Figure 4-1 were developed. This discussion assumes all habitat is removed in Development areas.

Appendix B identifies which species occur in each parcel at former Fort Ord. Table B-1 indicates the presence or absence of each target species based on the latest available information. Table B-2 describes acreage of low-, medium-, and high-density habitat suitable for each target species within each of the HMP reserves, HMP corridors, and the development areas based on 1992 survey information. Maps indicating the distribution of each HMP plant species at former Fort Ord and potential and occupied habitats for each HMP wildlife species are also included in Appendix B. Maps are based on data collected during preparation of the 1992 Flora and Fauna Baseline Study (U.S. Army Corps of Engineers, Sacramento District 1992a).

Information in Appendix B has been updated where available; however, analysis of impacts in this HMP is based on the 1992 data. The tables, combined with the distribution maps, provide further understanding of impacts to HMP species associated with development in development areas. The losses of habitat within development areas, as well as acres of habitat to be protected and enhanced within the HMP reserves and corridors, are described in Chapter 4 in the "Analysis of Impacts to HMP Target Species from the HMP" section.

Robust Spineflower (Federal Endangered)

Robust spineflower occurs on sandy soils in coastal dune and coastal scrub habitat. Several plants were observed at one site on the dunes west of Highway 1 during the 1992 field surveys. No other occurrences of robust spineflower were observed. Under this HMP the group of plants would be preserved.

Sand Gilia (Federal Endangered)

Sand gilia inhabits openings in maritime chaparral and coastal scrub communities. It also prefers disturbed sites, such as the borders of old roads and firebreaks. Based on 1992 survey results for all of former Fort Ord, approximately 5 acres of maritime chaparral and coastal scrub supporting sand gilia at high densities, 120 acres at medium density, and approximately 680 acres at low density will be removed under this HMP. Annually from 1993 to 1996, portions of former Fort Ord have been resurveyed to provided more site-specific data on sand gilia distribution and abundance. Results of the 1993 surveys for the northern portion of former Fort Ord are shown in Figure B-1b included in Appendix B. These surveys have typically shown a greater abundance of sand gilia than indicated by the 1992 survey results. However, none of these surveys has covered the entire installation as was done in 1992.

Smith's Blue Butterfly (Federal Endangered)

Smith's blue butterfly is completely dependent on seacliff and coast buckwheat for oviposition and as food sources for larvae and adults. Distribution and density of seacliff and coast buckwheat were recorded during the 1992 botanical surveys. Analysis of impacts to Smith's blue butterfly habitat is based on this data. Areas supporting medium or high densities of either buckwheat species are considered potential habitat for Smith's blue butterfly based on models included in the Flora and Fauna Baseline study. The 1994 HMP states that under that plan approximately 15 acres of potential Smith's blue butterfly habitat (areas supporting medium- and high-density populations of buckwheat) would be removed in the dunes west of Highway 1. In addition, an area of approximately 35 acres of dune habitat supporting buckwheat at low density would be removed and could potentially affect populations of Smith's blue butterfly. Habitat conservation and management requirements and land uses on the dunes west of Highway 1 under this HMP are consistent with those described for the 1994 HMP. Therefore, impacts to Smith's blue butterfly under this HMP are expected to be no greater than those described for the 1994 HMP .

Western Snowy Plover (Federal Threatened)

Western snowy plovers are known to nest on the beaches at former Fort Ord from the northern installation boundary to Stilwell Hall. They may also nest south of Stilwell Hall. The USFWS has proposed critical habitat for the Western snowy plover (60 FR 11768, March 2, 1995). The beaches at former Fort Ord are among the areas proposed as critical habitat. The HMP will not directly remove any western snowy plover nesting habitat. However, increased human presence on the beaches associated with the alternative could negatively affect snowy plover breeding success.

Monterey Spineflower (Federal Threatened)

Implementation of this HMP would result in the loss of approximately 3,910 acres of maritime chaparral, coastal dunes, coastal scrub, and grassland habitats occupied by Monterey spineflower. These habitat areas support Monterey spineflower at high densities on approximately 310 acres, medium densities on about 1,200 acres, and low densities on approximately 2,400 acres. Sand hill maritime chaparral, all coastal dune habitats, and grassland and coastal scrub habitats on sandy soils are potentially suitable habitat for Monterey spineflower. Monterey spineflower occurs in natural and artificial disturbance patches in these habitats.

Seaside Bird's-Beak (USFWS Species of Concern)

Seaside bird's-beak occurs in openings on sandy soils in maritime chaparral and oak woodland habitats. Implementation of this HMP would result in the removal of roughly 45 acres of maritime chaparral and oak woodlands supporting Seaside bird's-beak at low densities.

California Red-Legged Frog (Federal Threatened)

The California red-legged frog typically occupies cold water ponds with both emergent and submergent vegetation. No red-legged frogs have been observed on former Fort Ord; although potential habitat is available. Approximately 2 acres of potential California red-legged frog habitat would be removed under this HMP. However, part of this two acres consists of an artificial pond in parcel L20.2.2 (Attachment A) associated with the former Army Family Camp. The pond is filled from artificial sources and has been stocked with fish to provide recreational fishing for campers. Because of the presence of predatory game fish, it is unlikely that red-legged frogs would occur in this water body.

Almost all other potential red-legged frog habitat at former Fort Ord would be preserved within the NRMA. The Salinas River is also considered potential red-legged frog habitat. One portion of former Fort Ord is within the river channel. This area is identified as a habitat reserve.

Yadon's Piperia (Proposed for Federal Listing as Endangered)

The species occurs near established shrubs in maritime chaparral habitat. One population is known to occur on former Fort Ord in parcel E2a. This population would be preserved under this HMP. USFWS has proposed Yadon's piperia for federal listing as endangered.

Black Legless Lizard (Proposed for Federal Listing as Endangered)

The California black legless lizard is found in dune habitats supporting native vegetation and where maritime chaparral, coastal scrub, oak woodland, and oak savanna occur on loose sandy soils. Figure B-1b in Appendix B shows the occurrence of potential black legless lizard habitat at former Fort Ord based on habitat models developed during preparation of the 1992 Flora and Fauna Baseline study. Areas where potential habitat will be most affected include the western boundary of the multi-range area (MRA) and where the former Fort Ord boundary abuts the City of Marina. USFWS has proposed the black legless lizard for federal listing as endangered.

ANALYSIS OF REUSE ALTERNATIVES FROM THE FEIS AND FSEIS

This HMP assumes, as described in the previous "Impacts on Listed and Proposed HMP Species" section, that development can occur through all development areas with the resultant loss of habitat. The following description provides a similar analysis of the full buildout of areas identified for development within Alternative 6R of the FEIS; Alternative 6RM of the 1993 NEPA ROD; and Alternatives 7, Revised Alternative 7, and 8 of the FSEIS. These alternatives give an indication of the range of specific land uses that may occur within various development areas within this HMP.

This section summarizes impacts to biological resources associated with Alternative 6R from the 1993 FEIS; 6RM of the 1993 NEPA ROD; and Alternative 7, Revised Alternative 7, and Alternative 8 as described in the 1996 FSEIS. The 1993 FEIS, 1993 Biological Assessment, and the USFWS final Biological Opinion (October 19, 1993) describe Alternative 6R. Alternative 6RM is a modification of Alternative 6R that was contained in the 1993 NEPA ROD; it incorporated likely land uses in NPU areas based on an early version of the community reuse plan. Alternative 7 represents the December 12, 1994 FORA Final Base Reuse Plan. Revised Alternative 7 incorporates the Draft FORA Fort Ord Reuse Plan (March 1996) where it does not conflict with Army policies or agreements. Alternative 8, a land use scenario similar to Alternative 7, includes uses for specific parcels received during scoping processes. The full discussion of impacts to biological resources associated with Alternative 6R appears on pages 6-100 through 6-130 of Volume I of the FEIS. The full discussion of impacts to biological resources associated with Revised Alternative 7 appears on pages 5-67 through 5-74 of the FSEIS. The full discussion of impacts to biological resources associated with Revised Alternative 7 appears on pages 5-112 through 5-121 of the FSEIS. The full discussion of impacts to biological resources associated with Alternative 8 appears on pages 5-125 through 5-127 of the FSEIS.

Alternative 6R was analyzed using a Geographic Information System (GIS) database of the 1992 biological survey data overlaid with a map of the alternative. For impact calculations, development-related land uses were assumed to remove all biological resources within the land use footprint and habitat conservation related land uses were assumed to preserve all biological resources in the land use footprint. Alternative 6R also included several areas with no proposed use (identified as NPU areas). NPU areas were assumed to have no effect on biological resources. However, it was acknowledged in the FEIS that lands designated as NPU could be subject to reuse in the future and would require future, separate environmental documentation.

The total effect of Alternative 6R would be the removal of approximately 2,507 acres of common and special native biological communities. Within this area of removed habitat, approximately 130 acres supporting low-density populations of sand gilia, 5 acres supporting medium-density populations, and 15 acres supporting high-density populations of sand gilia would be removed. The only other listed plant species that would be affected would be Monterey spineflower. This species would lose approximately 355 acres, 515 acres, and 70 acres respectively of areas supporting low-, medium-, and high-density populations. Alternative 6RM was analyzed using the same methodology described above for Alternative 6R, except that land uses were inserted into NPU areas based on the local reuse planning assumptions available at the time the 1993 NEPA ROD was completed.

The total effect of Alternative 6RM would be the removal of 5,941 acres of common and special native biological communities. Within this area of removed habitat, approximately 555 acres supporting low-density populations of sand gilia, 125 acres supporting medium-density populations of sand gilia, and 13 acres supporting high-density populations of sand gilia would be removed. The only other federally listed plant species that would be affected would be Monterey spineflower. This species would lose approximately 1,970 acres, 985 acres, and 260 acres, respectively, of areas supporting low-, medium-, and high-density populations.

Alternative 7 was analyzed using both a GIS database and manual overlaying of a proposed road network map with resource maps. The GIS analysis for Alternative 7 used the same methods as used for the Alternative 6R analysis. However, impact assumptions for some parcels were modified based on more recent information. Impact calculations using the GIS did not include impacts associated with a proposed road network because the digital mapping data for the road network was not compatible with the GIS biological resource data. Impacts from the road network were quantified by overlaying by hand road network maps with resource maps and planimetering the acres of effect.

The total effect of Alternative 7 would be the removal of approximately 6,180 acres of common and special native biological communities. Within this area of removed habitat, approximately 595 acres supporting low-density populations of sand gilia, 120 acres supporting medium-density populations of sand gilia, and 6 acres supporting high-density populations of sand gilia would be removed. The only other federally listed plant species that would be affected would be Monterey spineflower. This species would lose approximately 1,965 acres, 1,065 acres, and 250 acres, respectively, of areas supporting low-, medium-, and high-density populations.

Revised Alternative 7 was analyzed through a comparison against the reuse scenario described in the 1994 HMP. Areas where the alternative differed from the 1994 HMP relative to locations of development and habitat reserved were identified. Locations where portions of the proposed transportation network conflicted with habitat reserve areas in the February 1994 HMP were included in this analysis. Acreages of loss or gain of areas identified as habitat reserve were calculated for each location where Revised Alternative 7 and the 1994 HMP differed. Losses and gains were also calculated for key HMP resources. For the analysis, key HMP resources include areas supporting sand gilia, Monterey spineflower, and Seaside bird's beak.

The total effect of Revised Alternative 7 on habitat reserve areas is the conversion of approximately 370 acres of area considered habitat reserve in the 1994 HMP to developed area or another use. The total effect on key HMP resources under Revised Alternative 7 would be a loss of approximately 114 acres of habitat supporting low-density sand gilia populations; a loss of approximately 3 acres of area supporting medium-density sand gilia populations; a gain of approximately 8 acres of area supporting high-density sand gilia populations; a loss of approximately 183 acres and 62 acres, respectively, of area supporting low- and medium-density Monterey spineflower populations; a gain of approximately 7 acres of area supporting high-density Monterey spineflower populations; and a loss of approximately 25 acres of habitat supporting low-density populations of Seaside bird's beak.

Alternative 8 is very similar to Alternative 7, with differences primarily associated with proposed changes in land uses in specific areas. Alternative 8 was analyzed by examining these specific areas. Differences between Alternatives 7 and 8 that could affect impacts to biological resources included expansion of a community park, removal of small areas from the NRMA (at the request of BLM due to the separation of these areas from the main body of the NRMA by existing roads), and construction of a golf course on the landfill parcel. The total effect of Alternative 8 would be the removal of approximately 6,230 acres of common and special native biological communities and removal of approximately 793 acres of area supporting sand gilia and 3,423 acres of area supporting Monterey spineflower at various densities.

ANALYSIS OF IMPACTS TO HMP TARGET SPECIES FROM THIS HMP

Earlier sections of this chapter described the impacts to listed and proposed plant and animal species from the maximum development allowed by this HMP. This section summarizes the habitat areas within each HMP reserve or corridor area that are going to be preserved for each HMP target species. In some cases, the HMP reserve area is actually a combination of Habitat Reserve parcels and parcels that are classified Development with Reserve or Development with Restrictions but contain primarily lands to be managed as

reserve. The section also indicates the habitat acreage contained within the total development area allowed by this HMP. This Development Areas category includes parcels that are classified as Development and others that are classified as Development with Reserve or Development with Restrictions but have no reserve component, only restrictions.

Acreage totals contained below were calculated by overlaying the current reserve, corridor, and development area boundaries with the 1992 habitat data contained in the planning-level Geographic Information System (GIS) developed by the Army to support the disposal and reuse of Fort Ord. The totals below are a sum of the low-, medium-, and high-density habitats for each species. For the detailed breakdown of low-, medium-, and high-density habitat for each species in each reserve, refer to Table B-2 in Appendix B.

State Parks Reserve

The State Parks reserve is located along the coast, west of SR 1. It includes both Reserve and Development with Reserve Areas or Development with Restrictions parcels, as mapped in Figure 4-1. This reserve occupies approximately 970 acres and includes parcels S3.1.1, S3.1.2, and S3.1.3. The list below identifies the species that have supporting habitat in the reserve. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- Smith's blue butterfly (177),
- western snowy plover (73),
- California black legless lizard (86),
- Monterey spineflower (666),
- robust spineflower (476),
- sandmat manzanita (1), and
- coast wallflower (171).

The State Parks reserve has an allowance for up to 186 acres of development for existing and proposed facilities. Conversely, an additional 390 acres that currently do not support native habitat will be restored to coastal strand and coastal scrub habitat. Therefore, a net increase in habitat available for target species is expected in this reserve. It is expected that this reserve will be transferred to California Department of Parks and Recreation as a public benefit conveyance (PBC) by the U.S. Department of Interior.

Landfill Development with Reserve

The Landfill reserve is located northeast of the Main Garrison, just south of Imjin Road. It is composed of two Development with Reserve or Development with Restrictions parcels (parcels E8a.1 and E8a.2). This reserve occupies approximately 308 acres. Three habitat types exist in the reserve, including coastal coast live oak woodland, annual grassland, and maritime chaparral. The list below identifies the species that have supporting habitat in the reserve. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California black legless lizard (43),
- Monterey ornate shrew (149),
- sand gilia (101),
- Monterey spineflower (243),
- sandmat manzanita (270),
- Monterey ceanothus (164), and
- coast wallflower (8).

The Landfill reserve has an allowance for up to 81 acres of development. The exact location of this development has not been determined. The remaining 227 acres of the area, including the landfill cap, will be managed as reserve.

UC/NRS Fort Ord Natural Reserve

The UC/NRS Fort Ord Natural Reserve is located in the southwestern corner of the former Fritzsche Army Airfield and south of Reservation Road; it has already been transferred to UC. It is being managed as part of the UC Natural Reserve System. This reserve includes approximately 590 acres and is composed of Reserve parcels S2.1.2, S2.1.3, S2.1.5, S2.3.2, and S2.4 (Figure 4-1). The habitat types in the parcel include maritime chaparral and coastal coast live oak woodland. The species that have supporting habitat within the reserve are listed below. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California black legless lizard (261),
- Monterey ornate shrew (243),
- sand gilia (473),
- Monterey spineflower (507),
- Toro manzanita (30),
- sandmat manzanita (424),
- Monterey ceanothus (348),
- Eastwood's ericameria (115), and
- coast wallflower (172).

Marina Reserve

The Marina reserve is located in the Fritzsche Army Airfield area, north and west of the developed portion of the airfield. It includes both Reserve and Development with Reserve or Development with Restrictions parcels. The reserve has approximately 175 acres and includes parcels L5.1.11 and L5.1.12 (Figure 4-1). These parcels have already been transferred to the City of Marina and are being managed as reserve. The species that have supporting habitat within the Marina Reserve are listed below. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California red-legged frog (1),
- California black legless lizard (19),
- Monterey ornate shrew (27),
- sand gilia (1),
- Monterey spineflower (120), and
- sandmat manzanita (1).

East Garrison Reserve

The East Garrison reserve is located in the easternmost portion of former Fort Ord, south of Reservation Road. The reserve includes both Reserve and Development with Reserve or Development with Restrictions parcels. The reserve totals approximately 855 acres and includes parcels E11a, E11b.1-E11b.8, and E11b.11. This large reserve area supports inland and coastal coast live oak woodland, grassland, and

maritime chaparral habitat types. The target species supported by habitat within the reserve are listed below. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California black legless lizard (6),
- Monterey ornate shrew (492),
- sand gilia (14),
- Monterey spineflower (158),
- Seaside bird's beak (5),
- Toro manzanita (349),
- sandmat manzanita (24),
- Monterey ceanothus (236),
- Eastwood's ericameria (195),
- coast wallflower (3), and
- Hooker's manzanita (65).

The East Garrison reserve includes an allowance for up to 200 acres of total development, both existing and future, at some location within the area. This 200 acres does not include lands already occupied by two water tanks, a wastewater treatment facility, and a future road corridor. It is expected that portions of this reserve will be transferred as a PBC by the U.S. Department of Interior.

Habitat Corridor

The Habitat corridor, located immediately west of the East Garrison portion of former Fort Ord, includes both Reserve and Development with Reserve or Development with Restrictions parcels. It includes parcels L20.2.1 and L20.2.2 (Figure 4-1). The reserve totals approximately 400 acres. Coastal coast live oak woodland and annual grassland habitats are found in the Habitat corridor. The list below identifies the target species that have supporting habitat within the corridor. Combined acreages of low-, medium-, and high-density habitat within the corridor are included in parentheses:

- California linderiella (1),
- California red-legged frog (1),
- California tiger salamander (1),
- Monterey ornate shrew (376),
- sand gilia (61),
- Monterey spineflower (204), and
- sandmat manzanita (78).

Some development will be allowed in the corridor, concentrated around the existing campground in parcel L20.2.2. The exact location of development is unknown, but it is not expected to affect the acreages listed above. It is expected that the Habitat Corridor will be transferred to Monterey County by the U.S. Department of Interior as a PBC.

BLM Natural Resource Management Area

The BLM NRMA is located in the southern and eastern portions of former Fort Ord. This reserve is largest natural area being retained in the HMP area. It totals approximately 15,000 acres and includes parcels Fl.1-F1.11, excluding parcel F1.7.2 (Figure 4-1). Some portions of the area have already been transferred to BLM and are being managed as reserve. This transfer includes most of the land east of Barloy Canyon Road. The NRMA includes 12 habitat types but is dominated by maritime chaparral. The target species that

are supported by habitat within the NRMA are listed below. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California linderiella (56),
- California red-legged frog (23),
- California black legless lizard (935),
- California tiger salamander (56),
- Monterey ornate shrew (1,723),
- sand gilia (2,288),
- Monterey spineflower (5,176),
- Seaside bird's beak (1,046),
- Toro manzanita (5,261),
- sandmat manzanita (5,453),
- Monterey ceanothus (8,223),
- Eastwood's ericameria (4,194),
- coast wallflower (36), and
- Hooker's manzanita (4,499).

Significant habitat management efforts and restoration of built areas are expected to add to the acreages within the NRMA that support the above-listed species.

Caltrans State Route 68 Easement

The Caltrans State Route (SR) 68 easement overlays the NRMA in the southern portion of former Fort Ord (Figure 4-1). A total of approximately 660 acres are contained within the corridor. Of this total, approximately 180 acres could be lost to development of a highway, assuming a 300-foot-wide construction corridor. The parcels overlain by the corridor include L4.2, E29e, E29b.1, F1.4, F1.5, F1.7.1, S4.2.1, S4.2.3, L20.3, L20.5, and F1.1. The major habitat types in this area are maritime chaparral, annual grassland, and valley needlegrass grassland. The list below identifies the species that have supporting habitat in the corridor. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California linderiella (1),
- California tiger salamander (2),
- Monterey ornate shrew (37),
- sand gilia (10),
- Monterey spineflower (64),
- Toro manzanita (155),
- sandmat manzanita (219),
- Monterey ceanothus (353), and
- Hooker's manzanita (226).

MPRPD Reserve

The MPRPD reserve is located in the extreme southwestern portion of former Fort Ord. It is a Reserve parcel containing approximately 20 acres. The parcel number is L6. It is dominated by coastal coast live oak woodland habitat but also contains riparian and maritime chaparral habitats. The list below identifies the target species supported by habitat in the MPRPD reserve. Combined acreages of low-, medium-, and high-density habitat within the reserve are included in parentheses:

- California black legless lizard (7).
- Monterey spineflower (20),

- Seaside bird's beak (7),
- sandmat manzanita (20),
- Monterey ceanothus (20), and
- Eastwood's ericameria (20).

Caltrans State Route 1 Area

The SR 1 corridor passes through the western portion of former Fort Ord, separating the beach areas from the Main Garrison area. It is considered a Development with Reserve or Development with Restrictions area and includes parcels S4.1.1, S4.1.2, and S4.1.3 (Figure 4-1). The corridor totals approximately 225 acres. A variety of disturbed dune, ice plant mat, and annual grassland habitats dominate the corridor. The target species that are supported by habitat in the SR 1 corridor are listed below. Combined acreages of low-, medium-, and high-density habitat within the corridor are included in parentheses:

- California black legless lizard (9),
- sand gilia (3),
- Monterey spineflower (40),
- sandmat manzanita (14),
- Monterey ceanothus (7),
- Eastwood's ericameria (5),
- coast wallflower (7), and
- Yadon's piperia (1).

Development Areas

The Development areas of former Fort Ord include the remaining parcels not listed above. Some of these parcels are developable with no restrictions, while several others (parcels E2a, E31, L20.3, L20.4, and L20.5) are classified as Development with Restrictions. The Development areas total approximately 10,500 acres. The developable areas are located primarily between the SR 1 corridor and the NRMA (Figure 4-1). Habitat supporting all of the HMP target species is found within the Development areas. Acreages of habitat for each of these species are listed below. The acreages are a combination of low-, medium-, and high-density habitats, summarized from Table B-2 in Appendix B:

- Smith's blue butterfly (2),
- California linderiella (2),
- California tiger salamander (2),
- California red-legged frog (2),
- California black legless lizard (1,846),
- Monterey ornate shrew (1,648),
- Hooker's manzanita (426),
- Yadon's piperia (13),
- sand gilia (806),
- Eastwood's ericameria (1,338),
- coast wallflower (375),
- Seaside bird's beak (69),
- Monterey spineflower (3,204),
- Monterey ceanothus (2,437),
- sandmat manzanita (2,325), and
- Toro manzanita (631).

There are no resource conservation requirements in the HMP for most of the Development areas. The habitat resources contained in the parcels are not considered critical to the long-term survival of the species. However, habitat may be preserved within and around the Development areas within these parcels.

MANAGEMENT GUIDELINES FOR RECIPIENTS AND/OR HABITAT MANAGERS OF DISPOSED LAND

This section describes key resources, expected impacts on resources, and land management responsibilities for each recipient of disposed land in the HMP area. The Army will include deed covenants in transfer of lands and may, as appropriate, enter into separate MOAs with recipients or habitat managers of disposed land to ensure implementation of HMP requirements. Land recipients and habitat managers may also agree to take part in a CRMP. The CRMP is described in detail at the end of this chapter. Methods for updating or modifying this HMP after agencies or private parties have received Fort Ord lands are described in the "Flexibility of This HMP" section in Chapter 1.

Habitat conservation and management responsibilities by recipients (or habitat managers) of disposed lands at former Fort Ord are discussed individually in the "Descriptions of Parcels" section.

Implementation Strategies

Memoranda of Agreement and Deed Covenants

Before disposal of land, the Army will place appropriate deed covenants (restrictions and/or management requirements) on lands to be transferred and/or enter into MOAs with recipients and/or habitat managers of disposed lands identified in this HMP as Habitat Reserve, Habitat Corridor, Development with Reserve Areas or Development with Restrictions, or Borderland Development Areas Along NRMA Interface. Appropriate HMP guidelines will be included in each document. USFWS will be designated as an agency of the United States to enforce restrictions and/or management requirements in the transfer documents.

Monitoring Procedures and Responsibilities

Monitoring of conservation areas and corridors shall be the responsibility of BLM, California Department of Parks and Recreation (DPR), University of California (UC), Monterey County, City of Marina, Monterey Peninsula Regional Park District, California Department of Transportation (Caltrans), Fort Ord Reuse Authority (FORA), and any other organization with management responsibilities for areas designated as Habitat Reserve, Habitat Corridor, or Development with Reserve Areas or Development with Restrictions in this HMP. The managing agency shall require avoidance of impacts to HMP target species, including listed species, and restoration of disturbed habitat for these species within HMP Habitat Reserve or HMP Habitat Corridors managed by that agency. These areas shall be conserved and managed in accord with the goals and objectives of the HMP and the parcel-specific management requirements in section 4 of the HMP for these parcels. The managing agency shall submit to BLM an annual report that details completed activities and the results of the endangered species protection program for the previous year. The report shall include summaries of land transfers that have occurred; occurrences of incidental take, if any, including known harassment (including both authorized and unauthorized incidental take in accordance with the ESA); acres of listed species' habitat eliminated or destroyed; problems encountered in implementing mitigation measures; pertinent results of biological surveys and sighting records; and any other pertinent information. The report shall be submitted by November 1 of each calendar year, and BLM shall be notified in case of a delay. FORA or other organizations receiving Borderland Development Areas Along NRMA Interface will provide status

reports for parcels adjacent to the NRMA on interim habitat management and/or firebreak construction and maintenance and compliance with other management requirements associated with these parcels (see the "Borderland Development Areas Along NRMA Interface" section near the end of this chapter). These agencies would be responsible for ensuring that this HMP's guidelines are implemented on parcels under their jurisdictions.

Monitoring results for CRMP participants will be coordinated by BLM, and BLM will consolidate the results into a single monitoring report. Annual monitoring reports will be filed with USFWS and DFG, as well as with each of the participating agencies.

Program Costs and Funding

Funding to develop this HMP was provided by the Army. Funding to implement this HMP's prescribed habitat restoration, management, and monitoring for reuse will be provided by entities receiving properties or with management responsibilities for areas designated as Habitat Reserve, Habitat Corridor, Borderland Development Areas Along NRMA Interface, or Development with Reserve Areas or Development with Restrictions in this HMP. These agencies will fund implementation of this HMP and implement conservation and/or management guidelines specific to parcels they receive. This HMP does not preclude other sources of funding for HMP implementation or preclude these agencies from securing funding from other sources to support their implementation of this HMP guidelines. Requirements for each agency's minimal participation and accomplishments toward implementation of this HMP will be specified in covenants in the deed that will be completed at the time of land transfer or in a MOA with the Army.

ANALYSIS OF ROAD CORRIDORS

The analysis of impacts to biological resources in the FSEIS considered the effects of a proposed transportation network. The transportation network considered was based on the FORA December 12, 1994 Final Fort Ord Base Reuse Plan with mitigations and modifications agreed on with USFWS, UC, and FORA on March 15 and 28, 1996. Several road segments included in the proposed network pass through areas identified as Habitat Reserve, Habitat Corridor, or Development with Reserve Areas or Development with Restrictions in this HMP (Figure 4-2). These road corridors are accommodated within this HMP. Descriptions of individual parcels affected by these road segments each contains a reference to the road segment and how it may affect HMP habitat conservation or management requirements. The SR68 Transportation Easement is treated separately and is considered in the category of "Development with Reserve Areas or Development with Restrictions".

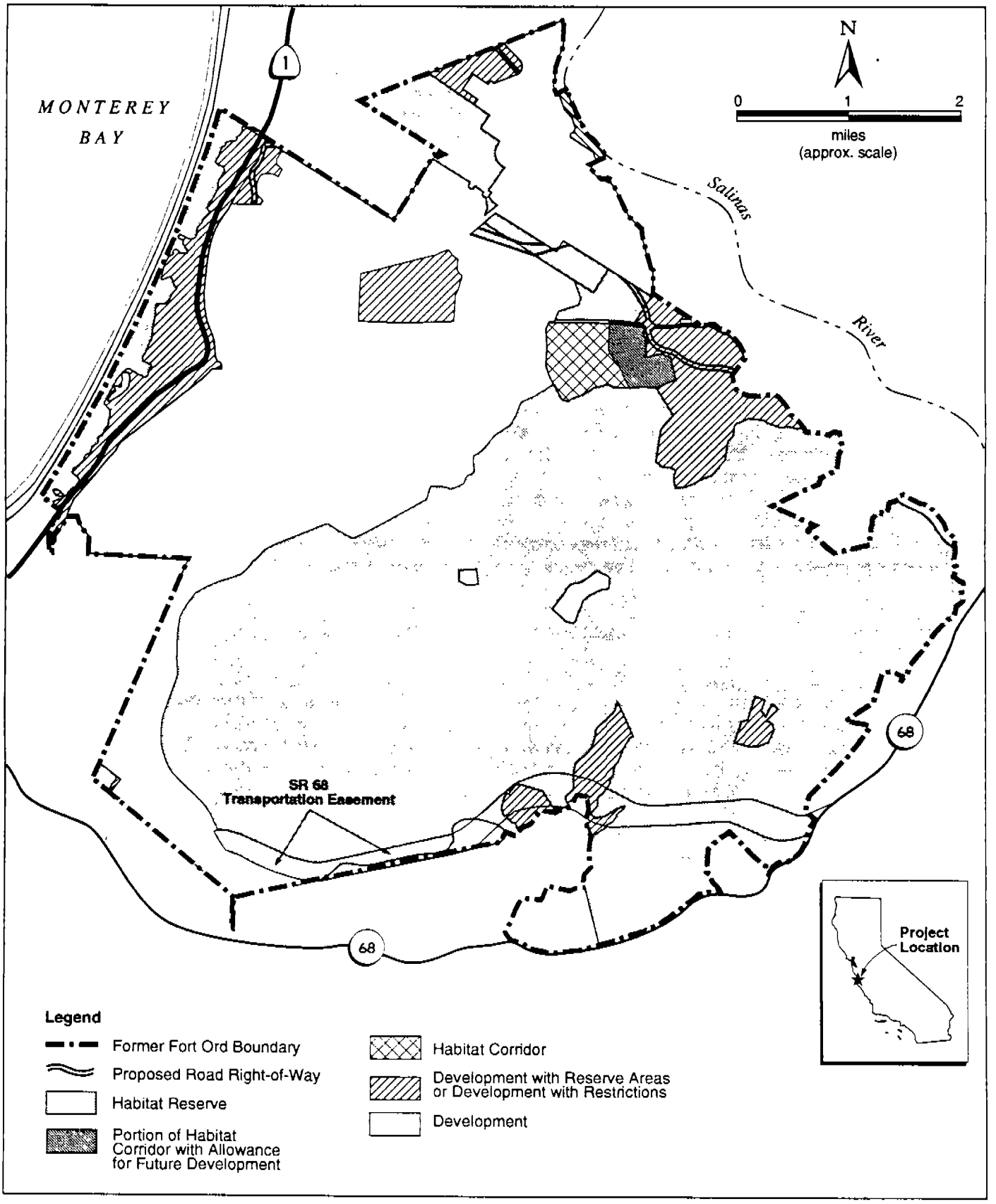

Figure 4-2
Proposed Road Corridors Passing through Areas with HMP Conservation Requirements

Description of Parcels

PARCELS F1.1-F1.11 (EXCLUDING PARCEL F1.7.2)
U.S. BUREAU OF LAND MANAGEMENT
NATURAL RESOURCE MANAGEMENT AREA

Parcel Description

Approximately 15,000 acres of Fort Ord lands are identified as Parcels F1.1 through F1.11 (excluding parcel F1.7.2, which is a Development area) in Figure 4-1 and Attachment A. This area, the Natural Resource Management Area (NRMA), includes areas designated as conservation areas and habitat corridors, as well as other habitat areas important to HMP plant and wildlife species.

The proposed SR 68 corridor passes through the southern portion of the NRMA, the existing Barloy Canyon Road (parcels L20.8 and LE20.19) passes north to south through the central portion of the NRMA, and the existing Eucalyptus Road (parcel LE20.18) passes east to west through the central portion of the NRMA. These areas are treated separately: the SR 68 corridor under the section titled Transportation Easement and parcels L20.8, LE20.18, and LE20.19 are included in the Existing Roads in HMP Management Areas discussion.

Parcel F1.12 contains the former Range Control compound and is currently developed. This parcel is considered a development parcel and is included with the Federal Lands with No HMP Requirements parcels.

Resources Present

Major Habitat Features

Twelve habitat types occur within the NRMA. The most abundant habitat type is maritime chaparral. Other dominant habitat types include annual grasslands, inland coast live oak woodland, and coastal coast live oak. Habitats of special interest within the NRMA include riparian forests, perennial grasslands, and vernal pools.

HMP Species

Sand gilia, Monterey spineflower, California linderiella, Seaside bird's-beak, Toro manzanita, sandmat manzanita, Monterey ceanothus, Eastwood's ericameria, coast wallflower, Hooker's manzanita, and California tiger salamander are known to occur in the NRMA.

Potential habitat is available in the NRMA for California red-legged frog, black legless lizard, and Monterey ornate shrew. Distribution maps for these species at former Fort Ord (based on 1992 survey data) are included in Appendix B. The appendix also contains updates of 1992 data where available.

Resource Conservation Requirements

Overall, undeveloped areas in the NRMA will be maintained in their natural state. No more than 2% of the areas with natural vegetation may be converted to areas having buildings or other development-oriented uses. Parcel F1.12, which contains the former Range Control compound, is not included in this 2%. Any development that may occur in the Transportation Easement that passes through the NRMA is also not included in this 2%. Only land management consistent with the conservation of biological resources will be conducted in the NRMA. Potential land uses in the NRMA include public access, grazing, police and fire training, education and research, and implementation of a Natural Resources Management Plan to be developed for the area. Restoration and enhancement efforts described in the next section will also be conducted.

Management Requirements

The NRMA is separated into two portions for management of maritime chaparral. Initial management of the NRMA will be different in the portion within the inland range, and any other areas requiring ordnance and explosives (OE) clearing, from the portions outside the inland range. After the clearing of OE by the Army, the management of maritime chaparral in the NRMA will not be separated into these two units.

NRMA within the Inland Range

During the Army's actions to clear OE from the inland range and other sites within the NRMA, BLM (the anticipated land recipient) will provide advice and guidance to the Army as the Army carries out the following actions:

- develop the spatial pattern of vegetation burning and OE clearing to promote healthy maritime chaparral and HMP species habitat;
- monitor the recovery and succession of maritime chaparral over the long term and short term;
- study the establishment, persistence, and habitat requirements of sand gilia, Monterey spine-flower, and Seaside bird's-beak;
- develop management procedures that encourage and maintain sand gilia, Monterey spineflower, and Seaside bird's-beak populations and habitat; and
- develop management procedures that encourage and maintain populations of other special-status maritime chaparral species.

At heavily disturbed sites requiring maritime chaparral restoration (e.g., paved sites, sites of compacted soils), BLM and the Army will conduct portions of the restoration effort. The Army, or others, will prepare the site surface for restoration by removing structures, asphalt, cement, and other materials; ripping compacted soils; restoring natural relief and landform conditions; and using other techniques. California Department of Transportation (Caltrans) may assist the Army in these efforts to the extent that funding is negotiated. Refer to the description of the Transportation Easement - State Route 68 corridor later in this chapter for more information concerning coordination between the Army and Caltrans regarding habitat improvements in the NRMA. BLM will conduct revegetation of maritime chaparral at these sites immediately following site preparation to meet the habitat success criteria described below.

NRMA Management

The following management actions will be taken by BLM in the NRMA. These actions will be taken outside the inland range before OE clearing and within the inland range after OE clearing.

Maritime Chaparral Habitat Restoration Success Criteria. Healthy maritime chaparral habitat is described in Chapter 2 in the "Habitat Management Plan Habitats" section. This description and comparisons with undisturbed sites supporting maritime chaparral should be used to measure the success of restored habitat. Restored habitat will consist of naturally regenerating maritime chaparral managed to maximize the habitat value for HMP shrub species associated with the habitat.

Sand gilia, Monterey spineflower, and Seaside bird's-beak will also be considered when restoring maritime chaparral habitat. Habitat conditions will be modified in restoration sites to promote favorable conditions for these species. Sand gilia, Monterey spineflower, and Seaside bird's-beak are annuals and locations of populations may vary from year to year. Because population occurrences may vary and restoration sites will be relatively small (typically 1-5 acres), it cannot be expected that each restoration site will support any one of these species every year.

Maritime chaparral restoration will be considered successful if restored sites support naturally regenerating maritime chaparral that becomes a functioning part of the entire dynamic, managed maritime chaparral habitat of the NRMA. These restored maritime chaparral sites should also provide habitat for, and in some years support populations of, sand gilia, Monterey spineflower, and Seaside bird's-beak.

Most potential maritime chaparral restoration sites occur within the inland range area. There are some denuded areas outside the inland range with potential for maritime chaparral restoration. However, soil conditions at many of these sites (exposed sandstone) would make site preparation and restoration efforts exceptionally costly and labor intensive. These areas are not considered in this HMP as locations where BLM is obligated to restore maritime chaparral habitat.

Maritime Chaparral Enhancement. BLM will enhance maritime chaparral habitat wherever it occurs in a degraded condition in the NRMA. Specific actions will be determined based on the results of monitoring and test study sites. Success criteria will be the same as those for maritime chaparral restoration.

Monitoring. BLM will monitor populations of all special-status species within the NRMA and may conduct population viability studies. BLM will maintain records of the location, timing, intensity, and extent of wildfires and controlled fires and will monitor post fire recovery and succession of maritime chaparral.

Controlled Burning. BLM will control burn approximately 500 acres per year on a rotational basis (about a 12- to 15-year rotation). Specific seasonal timing, patch size, yearly total, and rotational time for maritime chaparral burns will be determined based on the results of studies of maritime chaparral burning and recovery in the NRMA.

Access Control. Existing roads, necessary for land management, will be maintained by BLM in the NRMA. BLM will close all trails and nonmaintained roads to motor vehicle access. Approximately 240 roads will need to be closed. Permanent barriers will be erected and regular ranger patrols conducted.

Erosion Control. BLM will conduct erosion control measures at sites in greatest need of stabilization. These sites are along roads where the road, an adjacent road, or riparian habitat is threatened. BLM estimates that approximately 60 sites will need immediate action to be stabilized.

Responsible Parties

The BLM is responsible for ensuring that habitat enhancement is conducted and that natural vegetation is managed to maintain high habitat value for HMP species.

PARCEL S3.1.2
COASTAL DUNE ZONE

Parcel Description

Parcel S3.1.2 located along the coastline (Figure 4-1 and Attachment A) would be used for the preservation of restored coastal dune habitat, with public access limited to hiking trails and beach access. The parcel is identified as the Coastal Dune Zone (CDZ). The sandy beach area would provide the prime public recreation opportunities in the coastal zone, including wading, surfing, fishing, sunbathing, and picnicking. Creation of vernal ponds is also being considered in the CDZ. Public access would be by pedestrian means only.

Trail construction would involve minimal grading and the use of boardwalks, sand ladders, and guide railings for pedestrian control. Interpretive signs about the natural resources of the zone would be provided for public education.

Resources Present

Major Habitat Features

Five habitat types occur in the CDZ. The dominant habitat type is beaches, bluff, and blowouts. Other habitat types include iceplant mats, coastal strand, disturbed dunes, and dune scrub.

HMP Species

Sand gilia, Monterey spineflower, Smith's blue butterfly, western snowy plover, black legless lizard, and coast wallflower are known to occur in the CDZ parcel.

Resource Conservation Requirements

Except areas disturbed by boardwalk and/or sand ladder construction, all HMP resources within the CDZ will be preserved.

Management Requirements

Boardwalks and/or sand ladders will be constructed to channel foot traffic from the Disturbed Habitat Zone (DHZ) (Parcels S3.1.1 and S3.1.3 described later in this chapter) to the beach. Interpretative signs will be placed along each boardwalk/sand ladder describing the sensitive species present and the need to restrict foot traffic on the dunes. Boardwalk/sand ladder siting will avoid areas currently supporting native dune vegetation.

Beach access will be restricted at all western snowy plover nesting areas (including an acceptable buffer distance) during the snowy plover breeding and nesting season (March through September). If snowy plovers are found nesting in other areas, beach access will be restricted there as well. Beach raking will not be used as a method to remove trash in areas where western snowy plovers are nesting.

Responsible Parties

DPR is responsible for implementing all management requirements after Army lead removal and restoration requirements are complete and DPR has received the property.

PARCELS S2.1.2, S2.1.3, and S2.1.5
UC/NRS FORT ORD NATURAL RESERVE

Parcel Description

Parcels S2.1.2, S2.1.3, and S2.1.5 (collectively called the UC/Natural Reserve System (UC/NRS) Fort Ord Natural Reserve parcel [FONR]) will be managed by the UC/NRS. The FONR parcel is located in the southwestern corner of the former Fritzsche Army Airfield (Figure 4-1 and Attachment A). Parcels S2.3.2 and S2.4 are also considered part of the UC/NRS Fort Ord Natural Reserve but are discussed separately following this parcel description.

Subsequent to transfer of the reserve areas to UC by the Army, a boundary change has occurred between HMP Reserve parcel S2.1.5 and Development parcel S2.1.1, based on an agreement between UC and USFWS. Correspondence regarding this boundary change and a map showing the posttransfer boundary change are included in Appendix C.

Resources Present

Major Habitat Features

Two habitat types occur within the FONR parcel. The most abundant habitat type is maritime chaparral; the second habitat type is coastal coast live oak woodland.

HMP Species

Sand gilia and Monterey spineflower occur in most of the FONR parcel at medium and high densities (see distribution maps in Appendix B). Black legless lizard, sandmat manzanita, Monterey ceanothus, Eastwood's ericameria, coast wallflower, and Toro manzanita also occur in the parcel. The coastal coast live oak woodland in the FONR is considered potential habitat for the Monterey ornate shrew.

Resource Conservation Requirements

Research and teaching activities for the study of existing natural resources will be conducted on the FONR parcel, and natural habitats will be preserved and protected. Development will be limited within the parcel to that needed to support scientific research and teaching and to manage the habitat with priority given to HMP plant and wildlife species. Development will not affect more than 1% of the total natural habitat within the parcel.

Management Requirements

The following sections describe management principles and procedures that will guide management of the FONR parcel.

Baseline Inventory and Mapping

The UC/NRS will conduct a detailed, site-specific inventory and mapping of species and habitats on the FONR parcel, with an emphasis on special-status species that have significant habitat at the site.

Environmental Monitoring

The UC/NRS will design and implement an ongoing environmental monitoring program for both abiotic (e.g., climate and hydrology) and biotic (e.g., special-status species) components at the FONR parcel. Monitoring data will be used to guide species and habitat management programs.

Active Management

The UC/NRS will actively manage species and habitats, with an emphasis on maintaining viable populations and habitats of listed, proposed, and candidate species, including the maintenance of necessary disturbance regimes and ecosystem processes, as appropriate.

Management-Oriented Research

The UC/NRS will foster targeted research to address species and habitat management issues and to provide a base for informed management.

Parcel Monitoring

As a trustee agency under CEQA, UC is required to be notified when land use activities on adjacent lands have the potential to adversely affect environmental resources managed by the UC/NRS in the public trust. Trustee agencies may require early consultation with project proponents, identify significant impacts on public trust resources, and recommend mitigation and mitigation monitoring requirements for project approval.

Responsible Parties

The UC/NRS will be responsible for ensuring that natural resources are protected and properly managed at the FONR parcel.

PARCEL S2.3.2
RESERVATION ROAD HABITAT RESERVE

Parcel Description

The Reservation Road Habitat Reserve is shown as Parcel S2.3.2 in Figure 4-1 and Attachment A (along the southern edge of Reservation Road). A proposed Multi-Modal Corridor passes along the southern edge of parcel S2.3.2 (Figure 4-2). This corridor is accommodated in this HMP as described in the "HMP Analysis of Road Corridors" section earlier in this chapter. Parcel S2.3.2 is considered part of the UC/NRS Fort Ord Natural Reserve.

Resources Present

Major Habitat Features

Four habitat types occur within parcel S2.3.2. The most abundant habitat type is maritime chaparral. Other habitat types include coastal coast live oak woodland, annual grassland, and coastal scrub.

HMP Species

Sand gilia, Monterey spineflower, Toro manzanita, sandmat manzanita, Monterey ceanothus, Eastwood's ericameria, and coast wallflower are known to occur in parcel S2.3.2. Potential habitat is available in the parcel for black legless lizard and Monterey ornate shrew.

Resource Conservation Requirements

Resource conservation requirements will be the same for parcel S2.3.2 as for the FONR parcel.

Management Requirements

Management requirements for parcel S2.3.2 are the same as for the FONR parcel.

Responsible Parties

The UC/NRS will be responsible for ensuring that natural resources are protected and properly managed on parcel S2.3.2.

PARCEL S2.4
HABITAT RESERVE/CORRIDOR

Parcel Description

Parcel S2.4 borders the southern edge of Reservation Road just west of Imjin Road (Figure 4-1 and Attachment A). Parcel S2.4 is titled the Habitat Reserve/Corridor parcel. The corridor is intended as a connector between parcel S2.1.5 and parcel S2.3.2 to assist in maintaining the long-term viability of HMP species populations in these areas. (The importance of habitat corridors is described in detail in the "Ecological Concepts for Conservation Area and Corridor System Design" section in Chapter 2.) Parcel S2.4 will be managed by the UC/NRS and is considered part of the UC/NRS Fort Ord Natural Reserve.

Resources Present

Major Habitat Features

All of parcel S2.4 contains maritime chaparral habitat.

HMP Species

Sand gilia, Monterey spineflower, sandmat manzanita, Monterey ceanothus, and Eastwood's ericameria are known to occur in parcel S2.4. Potential habitat is available in the parcel for black legless lizards.

Resource Conservation Requirements

Resource conservation requirements for parcel S2.4 will be the same as for the FONR parcel. Any development necessary for scientific research, teaching, or maintenance activities will be sited and constructed so that it does not impede the area's function as a habitat corridor for HMP species.

Management Requirements

Management requirements for parcel S2.4 will be the same as for the FONR parcel. In addition, all artificially created landscape features within parcel S2.4 not required for preservation or operation of parcel S2.4 or adjacent parcels will be removed and the area restored to sand hill maritime chaparral.

Responsible Parties

The UC/NRS will be responsible for conservation and management requirements in parcel S2.4.

PARCEL L5.1.12
SALINAS RIVER HABITAT AREA

Parcel Description

Parcel L5.1.12 is located on the east central edge of the former Fritzsche Army Airfield area (Figure 4-1 and Attachment A). The parcel is titled the Salinas River Habitat Area. The City of Marina will have jurisdiction over this parcel.

Resources Present

Major Habitat Features

The southern segment of parcel L5.1.12 contains coastal scrub, inland coast live oak woodland, and small amounts of annual grassland habitat. Some riparian habitat occurs where the Salinas River passes through the northern segment.

HMP Species

Monterey spineflower occurs in parcel L5.1.12. Potential habitat is available for California red-legged frog in the Salinas River and Monterey ornate shrew in the oak woodland and riparian habitats.

Resource Conservation Requirements

All habitat within parcel L5.1.12 will be preserved in perpetuity.

Management Requirements

Parcel L5.1.12 will be managed to maintain existing habitat values for HMP species. The City of Marina may contract with an appropriate and qualified CRMP agency or other appropriate and qualified agency, as approved by the USFWS, to manage natural resources within parcel L5.1.12.

Responsible Parties

The City of Marina will be responsible for ensuring that existing habitat values are retained within parcel L5.1.12.

PARCEL L6
NATURAL AREA EXPANSION

Parcel Description

The Monterey Peninsula Regional Parks Natural Area Expansion (NAE) is shown as Parcel L6 in Figure 4-1 and Attachment A. The NAE, located in Monterey County, would be an expansion of the existing Frogpond Natural Area (owned by Monterey Peninsula Regional Parks), which is located in the City of Del Rey Oaks near the Fort Ord installation boundary. The NAE would add several additional habitat types to the Frogpond Natural Area. This would provide an area for interpretive trails, biological research, and other appropriate uses where several different habitat types may be observed in a small area.

Major Habitat Features

The NAE land use footprint is dominated by coastal coast live oak woodland habitat. The ephemeral drainage that feeds the frogpond area passes through the NAE parcel and supports some willow riparian habitat. A very small amount of maritime chaparral habitat also occurs in the NAE.

Listed and Proposed Threatened and Endangered Species

Monterey Spineflower. The entire NAE footprint supports Monterey spineflower at medium density.

California Black Legless Lizard. Portions of the coastal coast live oak woodland and maritime chaparral habitats in the NAE that occur on areas of loose sandy soil are considered potential habitat for the black legless lizard.

Other HMP Species

Seaside Bird's-beak. A population of Seaside bird's-beak occurs along North-South Road in the northern portion of the NAE parcel.

Sandmat Manzanita. Sandmat manzanita occurs across the entire NAE parcel at medium density.

Monterey Ceanothus. High-density Monterey ceanothus is found over the entire NAE parcel.

Eastwood's Ericameria. Eastwood's ericameria occurs at medium density over the entire NAE parcel.

Resource Conservation Requirements

Monterey Peninsula Regional Parks will preserve natural habitat within the NAE parcel in perpetuity.

Regional parks would limit development to a vehicle parking area, internal circulation (trails), and modest interpretive displays. Resource management, enhancement, and restoration, along with environmental education are the high-priority uses.

Management Requirements

Members of the CNPS will be given access to the CNPS native plant reserve within the NAE boundary for research and other purposes. Plant species of special concern will be managed appropriately. Where feasible and appropriate, habitat restoration and enhancement practices and techniques will be implemented. Water quality and wetland dependant species will be monitored.

Responsible Parties

Monterey Peninsula Regional Parks District will be responsible for development and management of the NAE parcel.

PARCEL E11a
EAST GARRISON

Parcel Description

E11a is located in the northeastern portion of former Fort Ord and borders the south side of Reservation Road (Figure 4-1 and Attachment A). A proposed road corridor passes through this parcel (Figure 4-2).

Resources Present

Major Habitat Features

Almost all of parcel E11a supports coastal coast live oak woodland habitat.

HMP Species

Sand gilia, Monterey spineflower, Monterey ceanothus, and Eastwood's ericameria are known to occur in parcel E11a. Potential habitat is available for Monterey ornate shrew.

Resource Conservation Requirements

All habitat within parcel E11a will be preserved. However, this HMP does accommodate a proposed road corridor in the parcel (Figure 4-2). (Refer to the "HMP Analysis of Road Corridors" section earlier in this chapter.) If the road is constructed, habitat and HMP resources may be removed to accommodate road construction.

Management Requirements

Parcel E11a will be managed to maintain existing habitat values for HMP species. Management will include maintaining small amounts of area with disturbed sandy soils to support sand gilia and Monterey spineflower habitat.

Two populations of sand gilia and scattered individuals were found in parcel E11a during 1993 surveys. In addition to providing habitat for sand gilia, parcel E11a, in conjunction with parcel L20.2.1, are important as a corridor for sand gilia movement between parcel S2.3.2 and the NRMA (parcels F1.1-F1.11). Sand gilia habitat should be maintained in parcel E11a to retain and improve the areas' function as a corridor for sand gilia movement. Special attention should be given to maintaining north-south trending linear habitat, such as dirt roads and firebreaks, to enhance the potential for sand gilia populations from the NRMA and parcel S2.3.2 to occasionally intermix.

The EDC recipient may contract with an appropriate and qualified CRMP agency or other appropriate and qualified agency, as approved by the USFWS, to manage, or assist in managing, natural resources within parcel E11a.

Responsible Parties

The EDC recipient will be responsible for ensuring that all conservation and management requirements for parcel E11a are fulfilled.

PARCELS L20.2.1 and L20.2.2 HABITAT CORRIDOR/RECREATIONAL VEHICLE PARK/YOUTH CAMP

Parcel Description

Parcels L20.2.1 and L20.2.2 are located just west of the former East Garrison (Figure 4-1 and Attachment A). The parcels are collectively titled habitat corridor/recreational vehicle park/youth camp. The

parcels are addressed together as proposed uses as management requirements in one parcel, while different from the other, will influence the other parcel. Parcel L20.2.2 includes the former Army RV park/family camp.

Two existing water tanks are located in the habitat corridor/recreational vehicle park/youth camp area. These tanks are shown as development parcels E17b.1 and E17b.2 in Attachment A. No HMP requirements apply to the water tanks.

Resources Present

Major Habitat Features

Coastal coast live oak woodland occurs over the majority of parcel L20.2.1 . Coastal coast live oak occupies approximately one-third of parcel L20.2.2. The balance is either developed or annual grassland. Parcel L20.2.1 provides a corridor connecting two conservation areas.

HMP Species

Monterey spineflower, sand gilia, and sandmat manzanita are known to occur in parcels L20.2.1 and L20.2.2. Potential habitat is available for California linderiella, California red-legged frog, and California tiger salamander in parcel L20.2.2. However, this habitat consists of an artificial pond associated with the former Army family camp. The pond is filled from artificial sources and has historically been stocked with fish to provide recreational fishing for campers. Because of the presence of predatory game fish, it is unlikely that any of these three species occur in the water body. The oak woodlands in the parcels are considered potential habitat for the Monterey ornate shrew and California black legless lizard.

Resource Conservation Requirements

Development will be concentrated in the existing campground in parcel L20.2.2, with potential future expansion of the campground based on USFWS and DFG approval. Uses such as low-impact programs for youth, outdoor nature education, resource management activities, and trails will occur outside of the developed campground in parcel L20.2.1 (Figure 4-3).

Except possibly small pockets of vegetation within the existing campground in parcel L20.2.2, no HMP species or other sensitive biological resources will be removed by development. All vegetation will be preserved in parcel L20.2.1; although, habitat values may be degraded by youths camping in undeveloped areas.

Although the existing pond in parcel L20.2.2 is considered potential habitat for California linderiella, California tiger salamander, and California red-legged frog, continued use for recreational fishing is not considered as either a loss or conservation of a resource because existing conditions will be maintained.

Management Requirements

Parcel L20.2.1 is considered part of a habitat corridor connecting two conservation areas. Habitat values within this corridor will be retained at high levels to allow movement of wildlife and dispersal of plant seeds and pollen by various methods.

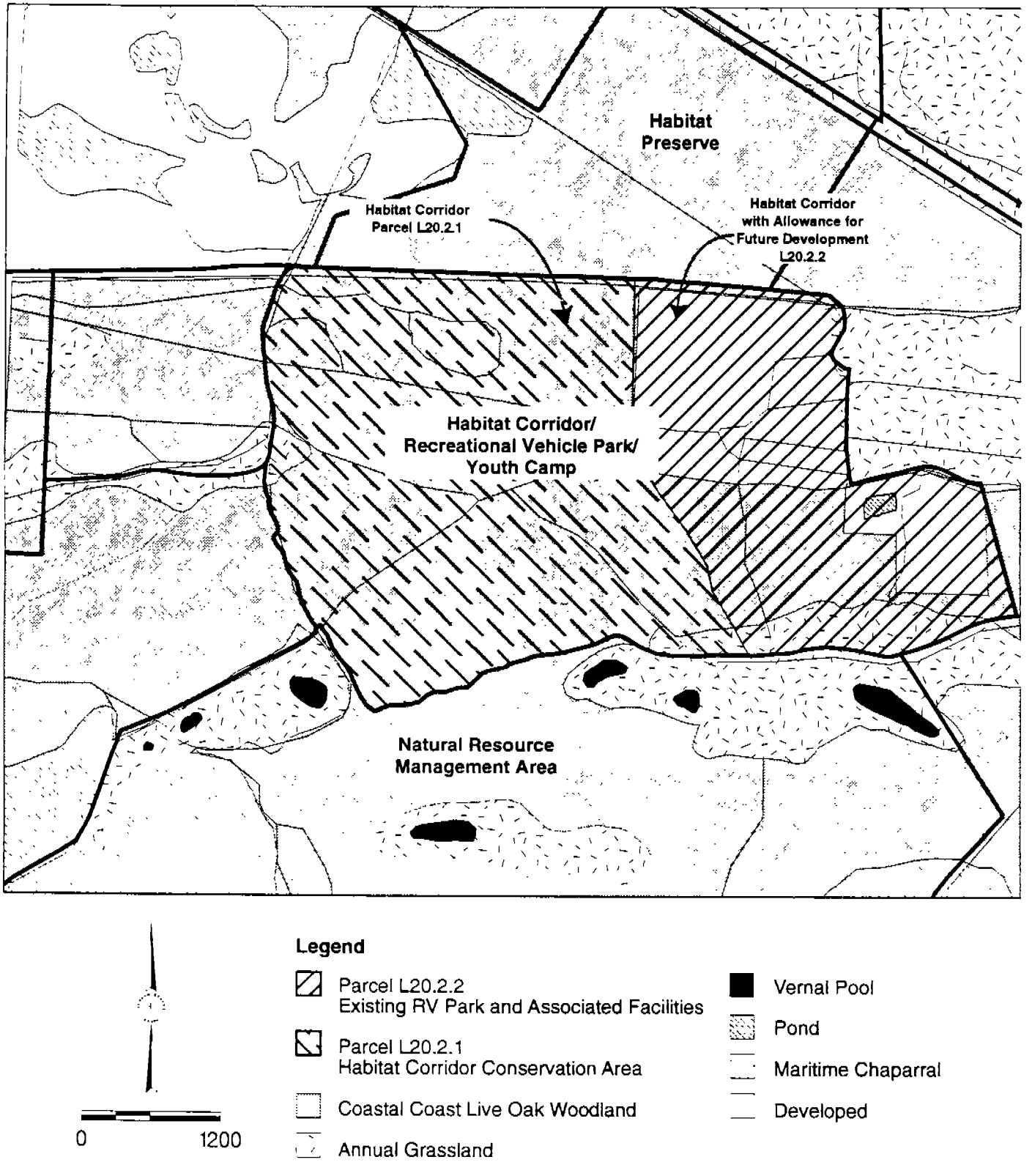

Figure 4-3
Development and Conservation Areas in the Habitat Corridor/Recreational Vehicle Park/Youth Camp Parcel

Management actions for parcel L20.2.1 to maintain habitat values will include special-status species monitoring, controlled burning, firebreak construction, and maintenance as appropriate, vehicle access controls, erosion control, and regular patrols to assure that passive public use and/or unauthorized actions are not impacting natural habitats. A resource management plan will be developed to execute this strategy and will be reviewed by USFWS and DFG. Monterey County may implement the resource management plan for parcel L20.2.1, or may contract with an appropriate and qualified CRMP agency or other appropriate and qualified agency, as approved by USFWS, to implement the management plan.

In addition, to prevent habitat degradation from youth camping and other activities, several specific management requirements will be included in the overall resource management plan. Interpretive signs and displays will be installed at the park entrance in parcel L20.2.2 and in selected locations throughout the park and camping areas. Displays should describe the importance of the area as a wildlife corridor and methods for maintaining habitat values such as removing trash, limiting ground disturbance, restraining pets, and discouraging capture or harassment of wildlife. Campers should also be informed that rare plants occur at the site and should not be collected.

Surveys will be conducted for Monterey ornate shrews in suitable habitat in both parcels. If Monterey ornate shrews are found, the following management practices will also be implemented:

- to preserve dead and downed wood for Monterey ornate shrews,
- wood collection for campfires will not be permitted.
- wood for fires will be provided at the campground entrance.

If trees or snags must be cut down for public safety reasons in parcel L20.2.1, the trunk will be left on the ground as potential habitat for Monterey ornate shrew.

Landscaping installed within either parcel will consist of species native to the project site.

The County of Monterey will coordinate with California Department of Forestry and Fire Protection (CDF) and DFG to determine suitable habitat management practices to retain and potentially enhance habitat values within the oak woodlands in parcel L20.2.1 and any oak woodlands that may be retained in parcel L20.2.2.

Responsible Parties

The County of Monterey will be responsible for ensuring that all conditions described above are followed.

PARCELS S3.1.1 and S3.1.3
DISTURBED HABITAT ZONE

Parcel Description

The Disturbed Habitat Zone (DHZ) is composed of two parcels (Parcels S3.1.1 and S3.1.3 in Figure 4-1 and Attachment A). These parcels include 186 acres of land available for development for existing and proposed facilities.

The DHZ would be used for preservation of restored coastal dune habitats and for visitor service facilities. Day use facilities could include hiking trails, interpretive displays, and group picnic areas. Overnight facilities could include family/group and hike-in/bike-in campgrounds, a hostel facility, a campfire center for interpretive programs, and a conference and lodging facility. Creation of vernal ponds is also being considered within the DHZ. Public access will be on existing roads and new hiking trails. Limited development is allowed in the DHZ and the California Department of Parks and Recreation (DPR) (the proposed land recipient), and others may choose to construct an aquaculture/marine research facility and/or desalinization plant, or allow FORA access for minor improvements to existing utilities and infrastructure within the DHZ. Mitigation for habitat disturbed during utility and infrastructure improvement will be developed by the project's proponent and approved by DPR and USFWS.

Trail construction would involve minimal grading and the use of guide railings for pedestrian control. Interpretive signs would be provided around the natural resources of the zone.

A beach through-road connecting the City of Marina to Sand City has been proposed along the existing beach frontage road west of Highway 1 and would pass through the north and south segments of the DHZ. An unregulated through-road along the dunes west of Highway 1 would allow an unacceptable potential for habitat degradation and destruction through unregulated public use of the dunes. A regulated through-road, controlled by DPR at the northern and southern ends and all other possible entrances, would be acceptable. The preferred method for public access to the dunes would be a single entrance and exit monitored by DPR. The through-road is not considered suitable by DPR for a scenic road because ocean views are shielded by the dunes along most of its length.

Resources Present

Major Habitat Features

Four habitat types occur in the DHZ. The dominant habitat type consists of ice plant mats, which are present throughout the parcel. Other habitat types include disturbed dunes, which occur in the northern and southern portions of the parcel, and small areas of dune scrub and coastal strand.

HMP Species

Monterey spineflower, coast wallflower, robust spineflower, and Smith's blue butterfly are known to occur in the DHZ parcel. Potential habitat is available in the parcel for black legless lizard. Maps showing the occurrence of populations and/or habitat of these species at former Fort Ord are included in Appendix B.

Resource Conservation Requirements

Large areas in the DHZ will be restored to native vegetation and HMP species habitat. These actions are described below. Outside of the sites disturbed by providing designated visitor services and facilities, all HMP resources within the DHZ will be preserved.

Management Requirements

Inventory

DPR will inventory both the DHZ and Coastal Dunes Zone (CDZ) (the CDZ is described previously in Parcel S3.1.2). DPR will use the Army's inventory data for lead removal sites where applicable and will not be required to reinventory these sites. Degraded habitat supporting dense mats of African ice plant and heavily disturbed habitat dominated by non-native weeds that are most suitable for restoration of native coastal stand habitat will be identified. The location, physical condition, and biological condition of each restoration site will be recorded and mapped.

Dune Habitat Restoration

All disturbed and degraded sites within the DHZ and CDZ that are not developed with recreation, access, or support facilities will be maintained as open space and restored to native habitat. The habitat area in the park will total approximately 700 acres including coastal strand, coastal scrub, beaches, bluffs, and blowouts. Approximately 130 acres of coastal strand, 30 acres of dune scrub, and 150 acres mapped as "beaches, bluffs, and blowouts" currently exists on the 886-acre site. The total of these three existing habitat types is 310 acres. This 310-acre area will be enhanced through the removal of ice plant and other exotic species. An additional 390 acres of coastal strand and coastal scrub habitat will be restored to reach the goal of 700 acres of habitat within the park. Up to 186 acres of the park will be available for existing and proposed facilities. It is an objective of this HMP that at least 250 acres of the total dune habitat restoration are completed by DPR within 7 years of land transfer to DPR (subject to availability of funds).

A majority of this dune restoration will occur in the CDZ. Habitat restoration will involve the removal of African ice plant, dune stabilization, and establishment of native dune plants. The restored habitat will include suitable habitat for sand gilia and Monterey spineflower. Successful dune habitat restoration techniques used at Marina and Asilomar State Beaches should be used at former Fort Ord.

Monitoring and Management

DPR will monitor the success of native coastal strand and dune scrub habitat restoration with specific monitoring of the establishment and persistence of sand gilia and Monterey spineflower populations. Management of dune habitats will be conducted as needed to maintain viable populations of sand gilia and Monterey spineflower. Monitoring data will be used to guide species and habitat management programs. Target levels for average yearly population sizes are 14,000-18,000 individuals of sand gilia and 375-475 acres of habitat occupied by high densities of Monterey spineflower.

Access Control

DPR will restrict foot and vehicle access in areas that:

- support Smith's blue butterfly populations or habitat,
- contain existing populations of sand gilia and medium- and high-density occurrences of Monterey spineflower, and
- support western snowy plover breeding habitat during the breeding season.

DPR may create opportunities for controlled interpretive trails or guided events at these sites.

Boardwalks and/or railed trails will be constructed to channel foot traffic across the DHZ to the CDZ. Interpretative signs will be placed at the entrance to and along each boardwalk/trail describing the sensitive species present and the need to restrict foot traffic on the dunes. Boardwalk/trail siting will avoid as much as possible areas currently supporting native dune vegetation.

Visitor service facilities will be sited, to the extent possible, to avoid areas currently supporting sensitive resources.

If a desalinization facility is built, to prevent potential degradation of habitat in the adjacent CDZ parcel from unauthorized vehicle entry, a barrier will be installed around all developed areas where topography would allow vehicle access. The design of the barrier and the materials used will be sufficient to prevent vehicles from leaving developed areas of the desalinization plant.

Measures will also be taken to minimize the potential for erosion in natural areas of the plant or on adjacent areas from stormwater runoff, which may originate from developed portions of the plant.

Responsible Parties

DPR will be responsible for implementing all management responsibilities.

PARCELS S4.1.1, S4.1.2, AND S4.1.3
HIGHWAY 1 CORRIDOR

Parcel Description

The Highway 1 Corridor (managed by Caltrans) is composed of the existing Highway 1 right-of-way. It includes parcels S4.1.1, S4.1.2, and S4.1.3 (Figure 4-1 and Attachment A), which are collectively called the Highway 1 Corridor parcel. This parcel will continue to be used for transportation purposes and may be used for expansion or improvements of transportation systems.

Resources Present

Major Habitat Features

The road shoulders and medians of the Highway 1 Corridor parcel support mostly disturbed dune, ice plant mat, and annual grassland habitats with remnant patches of coastal strand, dune scrub, and sand hill maritime chaparral. Sand hill maritime chaparral is best developed at the northern end of the parcel. Horticultural tree plantings are also present.

HMP Species

Monterey spineflower occurs at scattered locations throughout the Highway 1 Corridor parcel, mostly at low density. Sandmat manzanita, sand gilia, Yadon's piperia, and Monterey ceanothus are also known to occur in the parcel. The Highway 1 Corridor parcel also contains potential habitat for Eastwood's ericameria and coast wallflower in the sandhill maritime chaparral areas and potential habitat for the black legless lizard.

Resource Conservation Requirements

In conjunction with any transportation projects or work that would have an impact on the native habitat, Caltrans will preserve existing patches of native coastal strand, dune scrub, and sand hill maritime chaparral habitats in the road shoulders and medians in areas that will not conflict with anticipated highway expansion, improvements, operations, or maintenance.

Management Requirements

Caltrans will restore and enhance native coastal strand, dune scrub, and sand hill maritime chaparral habitats in the road shoulders and medians in areas that will not conflict with anticipated highway expansion, improvements, operations, or maintenance.

Responsible Parties

Caltrans is responsible for ensuring that HMP conservation and management guidelines are followed in the Highway 1 Corridor parcel.

PARCEL L5.1.11
NORTH FRITZSCHE HABITAT RESERVE

Parcel Description

Parcel L5.1.11 occurs in the west central portion of the former Fritzsche Army Airfield area (Figure 4-1 and Attachment A). The parcel is titled the North Fritzsche Habitat Reserve. The City of Marina will have jurisdiction over this parcel.

After transfer of HMP Reserve parcel L5.1.11 by the Army to the City of Marina, the city and USFWS agreed on a boundary change to the parcel. The change deleted the northeast portion of parcel L5.1.11 and added a portion of adjacent Development parcel L5.1 to the reserve area so that the reserve parcel ends at the edge of the proposed road along the northern boundary of the parcel. See Appendix C for the correspondence and maps describing the changes.

Resources Present

Major Habitat Features

Parcel L5.1.11 is dominated by annual grassland habitat with small inclusions of coastal scrub in the southern and central portions of the area.

HMP Species

Monterey spineflower occurs in parcel L5.1.11. Potential habitat is available for the black legless lizard. See Appendix B for distribution maps for these species at former Fort Ord.

Resource Conservation Requirements

FAA-required airport support facilities (navigational aids, access, and utilities) may be constructed in parcel L5.1.11, as well as a proposed six-lane road (Figure 4-2). The road is accommodated in this HMP as described in the "HMP Analysis of Road Corridors" section earlier in this chapter. All remaining habitat within parcel L5.1.11 after construction of these facilities will be preserved in perpetuity.

Management Requirements

Gates or vehicle barriers will be constructed along access roads as necessary to prevent unauthorized off-road vehicle traffic in parcel L5.1.11. Habitat remaining in parcel L5.1.11 after development will be managed to maintain existing habitat values for HMP species. Management will include maintaining small amounts of area with disturbed sandy soils to support Monterey spineflower habitat. The City of Marina may contract with an appropriate and qualified CRMP agency or other appropriate and qualified agency, as approved by the USFWS, to manage natural resources within parcel L5.1.11.

Responsible Parties

The City of Marina will be responsible for ensuring that resource conservation and management requirements are followed within parcel L5.1.11.

PARCELS L20.3 and L20.5
RECREATION AREA EXPANSION #1

Parcel Description

Parcels L20.3 and L20.5 are located along the southern boundary of former Fort Ord adjacent to the Laguna Seca Raceway (Figure 4-1 and Attachment A). Parcels L20.3 and L20.5 are collectively called the Recreation Area Expansion #1 (RAE1) parcel. The RAE1 parcel would be used for overflow parking during

major events at Laguna Seca. Some existing maritime chaparral would be removed to create areas suitable for parking.

Resources Present

Major Habitat Features

The RAE1 parcel contains maritime chaparral, and one small area of annual grasslands exists in the western portion of the parcel. Inland coast live oak woodland and coast live oak savanna occur along Barloy Canyon. The western portion of the parcel is dominated by annual grassland habitat with inclusions of coast live oak savanna. Two areas of coastal scrub habitat occur in the southwestern portion of the RAE1 parcel.

Listed and Proposed Threatened and Endangered Species

Sand Gilia. Sand gilia occurs at low density in a small area of the western section of the RAE1 parcel (1992 surveys).

Other HMP Species

California Linderiella. Two small ponds within the central portion of the RAE1 parcel are known to support California linderiella (1992 surveys). These ponds are adjacent to Barloy Canyon Road and within 100 feet of each other.

Toro Manzanita. The western portion of the RAE1 parcel supports both high- and medium-density occurrences of Toro manzanita.

Monterey Ceanothus. A medium-density occurrence of Monterey ceanothus occupies the western segment of the RAE1 parcel.

Hooker's Manzanita. A small amount of medium-density Hooker's manzanita is found in the western segment of the RAE1 parcel.

Monterey Ornate Shrew. The inland coast live oak woodlands in the RAE1 parcel are considered potential habitat for the Monterey ornate shrew.

California Tiger Salamander. One of the ponds (in which California linderiella occur) in the central portion of the RAE1 parcel is also a known breeding pond for California tiger salamander.

Resource Conservation Requirements

The California linderiella and California tiger salamander breeding ponds and their shared watershed will be preserved.

Management Requirements

To prevent erosion problems that may degrade habitat in the surrounding NRMA, grass will be maintained over areas where maritime chaparral or other vegetation is removed to allow for parking. This grass will be mowed before being used for parking to minimize fire hazards.

Other measures will also be taken as necessary to minimize the potential for erosion or accelerated sedimentation in the adjacent NRMA parcel.

A firebreak will be constructed along the inside perimeter of the RAE1 parcel to prevent fires that may start in the RAE1 parcel from spreading to the NRMA. The firebreak will be inspected before each event where the RAE1 parcel will be used and will be improved as necessary to ensure its effectiveness. After each event where the RAE1 parcel is used, all trash will immediately be removed from the site.

Signs will be posted in the RAE1 parcel during each event stating that no off-road vehicle used is permitted in the RAE1 parcel and surrounding NRMA.

The ponds where California linderiella and California tiger salamander occur and their shared watershed will be preserved. The ponds will be inspected after each event where the RAE1 parcel is used. If adverse impacts on the ponds from use of the RAE1 parcel are noted, appropriate actions will be taken to prevent these impacts during future use of the area.

Responsible Parties

Monterey County Parks is responsible for ensuring all management requirements for the RAE1 parcel are completed.

PARCEL L20.4
RECREATION AREA EXPANSION #2

Parcel Description

Parcel L20.4 is located in the southeastern portion of former Fort Ord and is surrounded by the NRMA (Figure 4-1 and Attachment A). Parcel L20.4 is titled the Recreation Area Expansion #2 (RAE2) parcel. The RAE2 parcel would be used for overflow parking during major events at Laguna Seca. Shuttle busses would carry patrons between the RAE2 parcel and Laguna Seca.

Resources Present

Major Habitat Features

The RAE2 parcel is dominated by annual grassland habitat. A patch of blue wildrye grassland occurs in the middle of the parcel.

Listed and Proposed Threatened and Endangered Species

No listed or proposed threatened or endangered species occur in the RAE2 parcel.

Other HMP Species

No other botanical HMP species or potential or occupied habitat for other HMP wildlife species occur in the RAE2 parcel.

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for the RAE2 parcel.

Management Requirements

Grass will be maintained over a majority of the RAE2 parcel to prevent erosion problems that may degrade habitat in the surrounding NRMA. This grass will be mowed before being used for parking to minimize fire hazards.

Other measures will also be taken as necessary to minimize the potential for erosion or accelerated sedimentation in the adjacent NRMA parcel.

A firebreak will be constructed along the inside perimeter of the RAE2 parcel to prevent fires that may start in the RAE2 parcel from spreading to the NRMA. The firebreak will be inspected before each event where the RAE2 parcel will be used and will be improved as necessary to ensure its effectiveness. After each event where the RAE2 parcel is used, all trash will immediately be removed from the site.

Signs will be posted in the RAE2 parcel during each event stating that no off-road vehicle use in permitted in the RAE2 parcel and surrounding NRMA.

The stockpond just east and downslope of the RAE2 parcel will be inspected after each event. If adverse impacts on the pond from use of the RAE2 parcel are noted, appropriate actions will be taken to prevent these impacts during future use of the RAE2 parcel.

Responsible Parties

Monterey County Parks is responsible for ensuring all management requirements for the RAE2 parcel are completed.

PARCELS E8a.1 and E8a.2
LANDFILL PARCEL

Parcel Description

Parcels E8a.1 and E8a.2 (identified collectively as the landfill parcel) are located on the existing landfill site located northeast of the Main Garrison just south of Imjin Road (Figure 4-1 and Attachment A). Both habitat management and development will occur in the landfill parcel.

Resources Present

Major Habitat Features

Three habitat types occur within the landfill parcel. The most abundant habitat type is coastal coast live oak woodland. Other habitat types include annual grassland and maritime chaparral. A small area is also developed.

HMP Species

Sand gilia , Monterey spineflower, sandmat manzanita, Monterey ceanothus, and coast wallflower are known to occur in the landfill parcel. Potential habitat is available in the parcel for black legless lizard and Monterey ornate shrew. (Refer to Appendix B for maps showing the distribution of these species and/or potential habitat at former Fort Ord. These maps are based on 1992 survey data with updated information where available.)

Resource Conservation Requirements

The section addressing landfill remediation in Chapter 3 describes predisposal activities related to the parcel.

Habitat conservation and management requirements for the landfill parcel are addressed in the measures agreed to by the Army, USFWS, BLM, UC, and FORA described in Appendix A (Items a and b). These measures are summarized below.

The requirement for the landfill parcel to be included as an HMP habitat management area is not an Army responsibility . Subject to approval by the UC governing body, UC will accept the landfill parcel and manage habitat. Alternatively, FORA will accept and manage the landfill parcel. The Army will not be required to restore habitat on the landfill cap nor will the Army be required to perform habitat management activities in the parcel while the landfill is being remediated or in caretaker status.

A total of 227 acres of the landfill parcel, including the capped area, will be managed as an HMP Preserve area. After the 227 acres of the parcel to be managed as habitat has been determined, the boundaries of the polygon may be modified when determining locations for development in the remaining 81 acres.

Management Requirements

Following land transfer from the Army, the recipient or an entity acceptable to the USFWS will manage 227 acres of the landfill parcel (including the completed landfill cap) as native habitat. The remaining 81 acres of the parcel will be available for development.

PARCEL E31
OFFICE PARK

Parcel Description

This parcel is shown as Parcel E31 in Figure 4-1 and Attachment A and is included in the group of parcels designated as Development with Reserve Areas or Development with Restrictions. Parcel E31 has no reserve areas but it does have management restrictions.

Resources Present

Major Habitat Features

Parcel E31 is dominated by maritime chaparral habitat. An ephemeral drainage that feeds the Frogpond Natural Area outside the Fort Ord boundary passes through this parcel.

Listed and Proposed Threatened and Endangered Species

Monterey Spineflower. Parcel E31 supports medium-density occurrences of Monterey spineflower.

Other HMP Species

Sandmat Manzanita. Parcel E31 supports medium-density occurrences of sandmat manzanita.

Monterey Ceanothus. High-density occurrences of Monterey ceanothus are found throughout parcel E31.

Eastwood's Ericameria. Medium-density occurrences of Eastwood's ericameria are found throughout parcel E31.

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for parcel E31. However, implementation of management requirements below may require that some habitat be retained.

Management Requirements

The direct discharge of stormwater or other drainage from new impervious surfaces created by development of the Office Park (OP) parcel into the ephemeral drainage in the NAE parcel will be prohibited. No increase in the rate of flow of stormwater runoff beyond predevelopment levels will be allowed. Stormwater runoff from developed areas in excess of predevelopment quantities shall be managed onsite through the use of basins, detention/retention ponds, percolation wells, pits, infiltration galleries, or any other technical or engineering methods that are appropriate to accomplish these requirements. Indirect, subsurface discharge is acceptable.

To minimize the potential for damage to structures in parcel E31 from potential wildfires in the NAE parcel, parking lots, greenbelts, or another nonflammable or fire-resistant land use will be located at the boundary between parcel E31 and the NAE to act as a firebreak. Structures will be located entirely behind the land use developed as a firebreak.

To prevent potential degradation of habitat in the NAE from unauthorized vehicle entry, a barrier will be installed along the border of parcel E31 and the NAE parcel where topography would allow vehicle access. The design of the barrier and the materials used will be sufficient to prevent vehicle access to the NAE parcel. Gates will be provided in the barrier to allow emergency access to the NAE parcel. The barrier will be maintained and repaired as necessary in perpetuity.

Responsible Parties

The parcel is scheduled to be transferred to FORA as part of the EDC.

PARCEL E2a

Parcel Description

Parcel E2a borders Highway 1 in the northern portion of former Fort Ord (Figure 4-1 and Attachment A). A proposed road corridor passes through the parcel (Figure 4-2).

Resources Present

Major Habitat Features

Most of parcel E2a supports sand hill maritime chaparral habitat. Grasslands and degraded coastal dune habitats consisting of disturbed dunes and ice plant mats also occur.

HMP Species

Sand gilia, Monterey spineflower, sandmat manzanita, Monterey ceanothus, Eastwood's ericameria, coast wallflower, and Yadon's piperia occur in the parcel. Potential habitat is available for the black legless lizard.

Resource Conservation Requirements

The population of Yadon's piperia in the northern portion of the parcel will be preserved. Where possible, habitat may be preserved within and around developed areas. The proposed road corridor shown in Figure 4-2 will avoid the Yadon's piperia population. (This corridor is accommodated in this HMP as described in the "HMP Analysis of Road Corridors" section earlier in this chapter.)

Management Requirements

Vehicle access to the habitat supporting Yadon's piperia will be restricted to prevent potential impacts on the population.

Drainage from development will not be allowed to flow into the habitat supporting Yadon's piperia.

Responsible Parties

The recipient of parcel E2a will be responsible for ensuring that conservation and management requirements are fulfilled.

PARCELS E11b.1-E11b.8 and E11b.11
EAST GARRISON

Parcel Description

Parcel E11b is shown in Figure 4-1 and Attachment A in the eastern portion of former Fort Ord and encompasses the former East Garrison. Attachment A shows parcel E11b divided into several subparcels (E11b.1 through E11b.12). Some of the subparcels may be transferred as PBCs to Monterey Peninsula College (MPC) or Monterey County. The subparcels are collectively called parcel E11b. A developed area supporting the Ammunition Supply Point (ASP) is located in the southern portion of the parcel.

Two existing water tanks and a sewage treatment plant are located in parcel E11b (shown as subparcels E11b.9, E11b.10, and E11b.12 in Attachment A). The water tank parcels and the sewage treatment plant parcel are considered developed and have no HMP requirements.

Resources Present

Major Habitat Features

Parcel E11b is dominated by both the inland and coastal forms of coast live oak woodland. Grassland habitat occurs in the northwest section of the parcel, and the developed former East Garrison occupies the northeast section. Maritime chaparral habitat occurs in the southern portion of the parcel.

HMP Species

Monterey spineflower, Toro manzanita, sandmat manzanita, Monterey ceanothus, Eastwood's ericameria, and Hooker's manzanita are known to occur in parcel E11b. Potential habitat is available for the Monterey ornate shrew. Distribution maps of populations and/or habitat for these species (based on 1992 survey data and updated where information was available) are included in Appendix B.

Resource Conservation Requirements

Up to 200 acres of total development, both existing and future, is allowed within the guidelines of this HMP for parcel E11b. The areas occupied by the sewage treatment plant and water tanks in subparcels E11b.9, E11b.10, and E11b.12 and the proposed road corridor shown in Figure 4-2 also may be developed in addition to the 200 acres. Where possible, development will be sited in areas that have existing development and in other areas that will minimize impact on HMP species and have less than 30% slopes. Siting of development will be coordinated with USFWS. The road corridor and 200-acre development area will be considered development areas with no habitat management restrictions. The remainder of the parcel will be managed as a habitat reserve.

Management Requirements

The habitat reserve areas in parcel E11b will be retained as natural habitat. Management will include special-status species monitoring, development and maintenance of fire breaks, controlled burning as appropriate, vehicle access controls, erosion control, and regular patrols to assure that passive public use and/or unauthorized actions are not adversely affecting natural habitat. A management plan will be developed to execute this strategy. The management plan will be implemented by Monterey County or MPC, and either may contract with an appropriate and qualified CRMP agency or other appropriate qualified agency, as approved by the USFWS, to manage natural resources in parcel E11b.

If all or part of the 200-acre development area is transferred to an entity other than Monterey County, the recipient shall fund its pro-rated share of habitat management costs in parcel E11b to Monterey County or another designated habitat management agency.

Monterey County, or the designated habitat management agency, will also coordinate with California Department of Forestry and DFG to determine suitable habitat management practices to retain and potentially enhance habitat values within the oak woodlands in parcel E11b.

Responsible Parties

Monterey County or MPC will be responsible for ensuring all conservation and management guidelines described above are implemented on the lands that are transferred to them.

PARCELS F1.4.1, F1.7.2, F1.12, , F2.1, F2.2, F2.3, F2.4, F2.5, F2.6, F2.7.1, F2.7.2, F2.7.3, F2.8, F2.9, F3, F4, F5.1, F5.2, AND F6 FEDERAL AGENCY PARCELS WITH NO HMP REQUIREMENTS

Parcels F1.4.1, F1.7.2, F1.12, , F2.1, F2.2, F2.3, F2.4, F2.5, F2.6, F2.7.1, F2.7.2, F2.7.3, F2.8, F2.9, F3, F4, F5.1, F5.2, and F6 are federal agency lands with no HMP requirements.

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for these parcels.

Management Requirements

No management requirements are associated with this HMP for these parcels.

PARCELS S1.1, S1.2.1, S1.2.2, S1.2.3, S1.3.1, S1.3.2, S1.3.3, S1.3.4, S1.4, S1.5.1, S1.5.2, S1.6, S1.7, S2.1.1, S2.1.4, S2.2.1, S2.2.2, S2.2.3, S2.3.1, S2.5.1, S2.5.2, S3.1.4, S3.2, S4.2.1, S4.2.2, S4.2.3, S4.3 STATE AGENCY PARCELS WITH NO HMP REQUIREMENTS

Parcels in series S1 and S2 listed above are economic development conveyance parcels for CSU and UC. Parcels S3.1.4 (the old ammunition supply point) and S3.2 (located adjacent to the main entrance to former Fort Ord), located west and east of SR1, respectively, are proposed for transfer to DPR for Development. Parcels S4.2.1, S4.2.2, and S4.2.3 are Development parcels located south of South Boundary Road. Parcel S4.3 is located along the existing SR 68 right-of-way on the southeastern boundary of former Fort Ord.

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for these parcels. Small pockets of habitat may be preserved within and around developed areas.

Management Requirements

No management requirements are associated with this HMP for these parcels.

PARCELS L1.1, L1.2, L2.1, L2.2, L2.3, L3.1, L4.1, L4.2, L5.1, L5.1.1, L5.1.2, L5.1.3, L5.1.4, L5.1.5, L5.1.6, L5.1.7, L5.1.8, L5.1.9, L5.1.10, L5.2, L5.4.1, L5.4.2, L5.5, L5.6, L5.7, L5.8.1, L5.8.2, L5.9.1, L5.9.2, L5.10, L7.1, L7.2, L7.3, L7.4, L7.5, L7.6, L7.7, L8.1, L8.2, L8.3, L9.1.1, L9.1.2, L9.2, L9.3, L10.1, L10.2, L10.3, L10.4, L11, L12.1, L12.3, L13.1, L13.2, L14, L15.1, L15.2, L15.3, L16, L17.1, L17.2, L18, L19, L20, L20.6, L20.7, L20.9, L20.10.1, L20.10.2, L20.10.3, L20.11.1, L20.11.2, L20.12, L20.13, L20.14.2, L20.15, L20.16, L20.17.1, L20.17.2, L20.18, L21, L22, L23.1.1, L23.1.2, L23.1.3, L23.1.4, L23.1.5, L23.2. L23.4, L23.5, L24, L25, L27, L28, L29, L30, L31, L32, L33, L34, LE5.9, LE12.2, LE20.16
LOCAL AGENCY PARCELS WITH NO HMP REQUIREMENTS

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for these parcels. Where possible, habitat may be preserved within and around development areas.

Management Requirements

No resource management requirements are associated with this HMP for these parcels.

PARCELS L20.8, L20.14.1, L20.19, L20.20, L20.21, L20.22, LE20.18, LE20.19
EXISTING ROADS IN HMP MANAGEMENT AREAS

Several existing roads and road segments pass through areas identified in the HMP as Habitat Reserve, Habitat Corridor, or Development with Reserve Areas or Development with Restrictions. Many of these existing roads and accompanying rights-of-way will be transferred for continued use as roads. These roads and road segments are shown in Attachment A as parcels L20.8, L20.14.1, L20.19, L20.20, L20.21, L20.22, LE20.18, and LE20.19. They are identified as Development parcels.

These parcels are not included within those shown in Figure 4-2 as analyzed in the HMP. Although these parcels are identified for development, potential expansions of the existing roads and road segments outside the existing road shoulders where they pass through areas with HMP resource conservation requirements or management requirements may require consultation with USFWS and DFG. Consultation will be the responsibility of the land recipient.

PARCELS E2b.1, E2b.2, E2b.3, E2c.1, E2c.2, E2c.3, E2c.4, E2d, E2e, E4.1, E4.2, E4.3, E4.4, E4.5, E4.6, E4.7, E5a, E5b, E11b.9, E11b.10, E11b.12, E15.1, E15.2, E17b.1, E17b.2, E18.1, E18.2, E18.3, E18.4, E19a.3, E20b, E20c.1.1, E20c.1.2, E20c.1.3, E20c.2.1, E20c.2.2, E21a, E29, E29b.3, E29e, E35, E36
ECONOMIC DEVELOPMENT CONVEYANCE PARCELS WITH NO HMP REQUIREMENTS

Resource Conservation Requirements

No resource conservation requirements are associated with this HMP for these parcels.

Management Requirements

No resource management requirements are associated with this HMP for these parcels.

TRANSPORTATION EASEMENT STATE ROUTE 68 CORRIDOR

Parcel Description

The Transportation Easement - State Route 68 (SR 68) corridor is generally a 1,000-foot-wide study corridor for a proposed new route for SR 68 located along the southern part of former Fort Ord (as depicted in Attachment A). The corridor would include easements from BLM and the Army. The easement crosses parcels L4.2, E29e, E29b.1, F1.4, F1.5, F1.7.1, S4.2.1, S4.2.3, L20.3, L20.5, and F1.1. The State Route 68 Corridor is not a distinct parcel but an easement through several separate parcels. The easement is included in the discussion of proposed road corridors in the "HMP Analysis of Road Corridors" section earlier in this chapter. The developed portion of this right-of-way would be approximately 300 feet wide.

As an alternative to a new SR 68 corridor, Caltrans is studying improvements to the existing SR 68 corridor, which would also require use of former Fort Ord lands adjacent to the existing highway. The Army will not be involved in planning for this alternative or granting easements to Caltrans for this alignment.

Resources Present

Major Habitat Features

Several habitat types occur in the Transportation Easement. Maritime chaparral is the dominant habitat type, with annual grassland and valley needlegrass grassland also prevalent. Some mixed riparian forest, inland coast live oak woodland, coast live oak savanna, and vernal pool habitat also occur.

HMP Species

Sand gilia, Monterey spineflower, Toro manzanita, sandmat manzanita, Monterey ceanothus, and Hooker's manzanita are known to occur in the Transportation Easement. Potential habitat is available for the California linderiella, California tiger salamander, and Monterey ornate shrew.

Resource Conservation Requirements

BLM will conserve HMP habitats and species in the Transportation Easement in the same manner as other parts of the NRMA (F1.1, F1.4, F1.5, F1.7.1), until such time as a new highway is planned and constructed (refer to the discussion of the NRMA earlier in this chapter). The development restrictions in parcels L20.5 and L20.8 will also apply until the new highway is planned and constructed.

Caltrans will design and construct the highway to seek to avoid impacts on vernal pools and vernal pool watersheds. If it is not possible to avoid vernal pools and vernal pool watersheds, appropriate measures will be implemented to minimize and mitigate impacts. Caltrans will design and construct the highway to minimize impacts on all natural habitats and HMP species populations. Caltrans will conserve or restore natural habitats in the road shoulders and medians in areas that will not conflict with Caltrans highway expansion, improvements, operations, or maintenance.

Management Requirements

Where the Transportation Easement passes through the NRMA, BLM will manage the easement in the same manner as other parts of the NRMA. However, because new highway construction could occur in the parcel, no restoration or enhancement of habitat or HMP species will be conducted.

Caltrans (the proposed recipient of the easement) will coordinate with BLM regarding interim management of the proposed state right-of-way until such time that a project could be constructed. If the project is to be constructed, Caltrans will continue to coordinate management of natural habitats and HMP species with BLM before, during, and following construction. Caltrans may participate in the CRMP.

The Army ROD for the 1993 FEIS contained the provision for the transfer of an easement for the development of the SR 68 transportation improvements. A portion of this area, parcel F 1.1, has been assigned to BLM with the proviso that BLM recognize the Army commitment concerning the granting of an easement to Caltrans subject to the conditions of the HMP as it may be revised or modified. Caltrans has indicated that its route selection process and NEPA/CEQA documentation for the SR 68 corridor have been stalled because of staff and funding constraints and that it wishes to keep options for two alignments open: an upper alignment as indicated in the 1993 NEPA ROD and a lower alignment along the existing SR 68 primarily within the parcel transferred to BLM in October 1996. The Army is willing to grant easements to Caltrans for the upper alignment as long as these areas are Army property and have had the required Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and OE investigations and response actions completed and are consistent with the 1993 NEPA ROD. The U.S. government would transfer an easement for SR 68 to Caltrans in phases as the environmental cleanup and OE responsive actions are completed. The easterly portion of the easement, both along the existing SR 68 and the south Fort Ord Corridor (within parcel F1.1 of the BLM transfer), would be transferred by BLM following application by Caltrans and BLM's processing the required transfer documentation, including NEPA and Section 7 consultation. Caltrans will assist in implementing the habitat improvements in the inland range portion of the NRMA as discussed below. Caltrans' role in implementing this HMP is to be tied to the SR 68 corridor selection process and the granting of an easement to Caltrans.

Caltrans and BLM have entered into a Memorandum of Understanding (MOU) concerning habitat considerations and the planning and development of improvements to SR 68. BLM has agreed to acknowledge the Army's intention in the 1993 NEPA ROD and HMP, including revisions and modifications to the HMP. At this point in time it is not known whether Caltrans will actually construct the SR 68 improvements or whether the improvements would take place on the upper or lower alignments within the parcel transferred to BLM. If the lower alignment were used, there would be no easement transferred from the Army since the alternative alignment would be within parcel F1.1, already transferred to BLM and parcel L20.6 scheduled to be transferred to Monterey County. The Army has made no commitment or decision to grant an easement to Caltrans outside of the upper alignment described in the NEPA ROD. Caltrans may work cooperatively with the other agencies receiving former Fort Ord lands to arrange for acquisition of an alternative corridor (such as Monterey County, which has a pending PBC request for parcel L20.6 within the area of the lower corridor alignment and has an MOU for the SR 68 project with Caltrans).

There is a requirement for Caltrans to participate equitably in the implementation of the basewide HMP to accommodate the target species management and restoration required for the Caltrans SR 68 development. The 1994 HMP envisioned the removal of all hardstand areas around the inland ranges to be transferred to BLM, with participation of Caltrans as the agency's contribution to the basewide HMP.

It is undetermined at this time whether the upper South Fort Ord Corridor is preferred from an environmental standpoint. At this time, Caltrans considers the corridor adjacent to SR 68 in parcel F1.1 equally viable as the northerly corridor. As SR 68 environmental studies continue, Caltrans will ask BLM to participate as a cooperating agency in the Caltrans/FHWA SR 68 project development process. Should environmental studies conclude that the lower corridor adjacent to existing SR 68 is preferred, then, subject to compliance with the Federal Land Policy Management Act (the BLM Organic Act - FLPMA), NEPA, and other applicable federal laws, BLM would grant Caltrans an easement for those BLM lands needed to construct the SR 68 project in that corridor.

Caltrans will contribute $250,000 before the end of fiscal year 1998, with the understanding that these funds would apply as mitigation toward future state transportation projects on former Fort Ord. All obligations of Caltrans under the terms of this agreement are subject to the appropriation of resources by the State Legislature and the allocation of resources by the California Transportation Commission.

Responsible Parties

Caltrans will be responsible for implementing management requirements in the Transportation Easement as described above. Caltrans will coordinate with BLM, Monterey County, and other agencies as necessary concerning HMP species and habitat conservation and management when planning and constructing the State Route 68 corridor.

If the Upper Corridor is not selected for SR 68 improvements, the area of the Upper Corridor will contain the management requirement and responsibilities for the parcel within which the corridor is described.

PARCELS L3.2, E19a.1, E19a.2, E21b.1, E21b.2, E21b.3, E23.1, E23.2, E24, E29a, E29b.1, E29b.2, AND E34 BORDERLAND DEVELOPMENT AREAS ALONG NRMA INTERFACE

Parcel Description

Certain development parcels (see parcel numbers above) abut the NRMA. Parcel L3.2 is a PBC development area proposed to be transferred to York School; the E series parcels listed above are to be obtained by FORA as part of the FORA EDC. Special management requirements for the boundaries between development areas and the NRMA are needed to be responsive to agreements between USFWS, BLM, UC, FORA, and the Army. These boundary areas have both interim and long-term management requirements. Except for boundary management requirements, the parcels referenced above are available for development without restriction.

It may take many years before development occurs in the development parcels bordering the NRMA. In order to prevent potential conflicts between the interim use of these parcels before their development and habitat management activities in the adjacent NRMA, FORA or other recipients of the land will arrange for interim management of the land, which shall include, at a minimum, the installation and maintenance of firebreaks and vehicle barriers where appropriate to separate developed and developing areas from natural lands. Other appropriate interim management measures will be developed by FORA or other recipients of the land in collaboration with BLM for the remainder of the parcel.

Long-term management requirements will apply as the development parcels are built out. Barriers will be installed and maintained along the NRMA where topography would allow vehicle access. Gates will allow emergency access to the NRMA. Keys to gates will be provided to reserve managers and other appropriate agencies. To minimize the possibility of fire damage to the NRMA as well as structures on the development parcels, parking lots, greenbelts, or other nonflammable or fire-resistant land uses will be located as a buffer between the NRMA and development. Structures will be sited entirely behind the land use that is developed as a firebreak. Measures will also be taken to reduce potential for erosion in these parcels so as not to affect the NRMA parcel from stormwater runoff that may originate in these parcels.

Resource Conservation Requirements

There are no resource conservation requirements for the Borderland Development Areas Along NRMA Interface. However, FORA or other recipients of the land, in consultation with BLM, will arrange for appropriate interim management of developable natural lands before development so that natural lands would be conserved and managed until development occurs. Additionally, small pockets of habitat may be preserved within and around developed areas. Populations of iceplant, scotch broom, and pampas grass will be controlled on an interim and long-term basis in these areas to avoid the spread of these species into the NRMA.

FORA has stated that it is not FORA's intent to separate developable natural land areas from reserves by the establishment of firebreaks and vehicle barriers before planned development of those lands.

Management Requirements

The following management requirements are applicable as interim requirements before the development of the parcels. For the habitat reserve/development interface in all borderland development areas (parcels listed above), FORA or other recipients of the land will either arrange to have existing native habitat managed in an interim period before development or construct and maintain firebreaks and vehicle barriers to separate developed and developing areas from both interim and permanent habitat areas. FORA has stated that it will work together with BLM to identify suitable locations for both interim and long-term firebreaks/barriers separating developed lands from natural lands as development of former Fort Ord land proceeds. A barrier will be installed and maintained along the NRMA where topography would allow vehicle access. Gates will allow emergency access to the NRMA. Keys to gates will be provided to BLM and other appropriate agencies. FORA will supply reports on interim habitat management in development parcels and/or development of firebreaks to BLM.

The following management requirements will be implemented as parcels are transferred and the parcels or portions of the parcels are developed. Populations of ice plant, scotch broom, and pampas grass will be controlled to avoid their spread into the NRMA. To minimize the possibility of fire damage to the NRMA as well as structures on the development parcels, parking lots, greenbelts, or other nonflammable or fire-resistant land uses will be located as a buffer between the NRMA and development. Structures will be sited entirely behind the land use that is developed as a firebreak. Measures will also be taken to reduce potential for erosion in these parcels so as not to affect the NRMA parcel from stormwater runoff that may originate in these parcels.

Responsible Parties

Parcels E19a.1, E19a.2, E21b.1, E21b.2, E21b.3, E23.1, E23.2, E24, E29a, E29b.1, E29b.2, and E34 will be obtained as part of the FORA EDC. FORA will be responsible for implementing the management requirements specified above, which are consistent with item c of the agreement between the Army, USFWS, UC, and FORA (see Appendix A). In the event that the EDC process is not the selected means of transfer of these properties, the recipient of the land will be responsible for implementing the firebreak/vehicle barrier, invasive exotic plant control, and erosion control requirements specified above, and the parcels would otherwise be available for development. York School will be responsible for implementing the management requirements for parcel L3.2.

Coordinated Resource Management and Planning

A coordinated resource management and planning (CRMP) process is a multi-agency multi-jurisdictional land use planning effort developed under the sponsorship of the California CRMP memorandum of understanding (MOU). This MOU has been signed by 14 federal and state agencies including the BLM, DFG, Soil Conservation Service, USFWS, and UC. Additional details on the development of this planning process are contained in the California CRMP Handbook (1990).

The BLM is using the CRMP process to develop management plans and prescriptions for BLM managed lands at former Fort Ord. The BLM has invited other public entities having natural resource management or habitat conservation responsibilities applicable to the former Fort Ord area to participate in this cooperative planning effort. Agencies that have no resource conservation requirements on received lands but wish assistance in managing lands prior to development may also participate in the CRMP.

Participation in the CRMP is not a requirement of this HMP. The goal of the CRMP is to develop annual work plans, each being a single multi-jurisdictional management plan for all maritime chaparral habitats that are to be preserved and managed for natural values. BLM and UC/NRS are willing to consider managing species and habitats on other public and private lands on a fee bases for those entities required to conserve habitat under this HMP. This service may be provided under the CRMP process.

The CRMP is tiered to this HMP. The CRMP plans would be annually reviewed and would implement this HMP. Anticipated products from the CRMP would be:

- uniform special-status species and habitat-monitoring strategies;
- multi-jurisdictional fire management strategies (prescribed fire and wildfire management);
- uniform prescriptions of compatible and noncompatible uses;
- realignment of land ownership to consolidate natural habitat management with natural resource management agencies;
- consolidated pubic information publications (maps, brochures, etc.), volunteer programs, and other public relations activities; and
- combined single reports to USFWS/DFG on status of special-status species.

Most importantly, the CRMP will provide a mechanism for public agencies to share resources to deliver the most efficient habitat protection and public services for the money expended. Examples of responsibilities and resources that could be shared include:

- patrolling lands; providing visitor assistance; maintain signs, barriers, and other improvements; and conducting threatened and endangered species monitoring;
- coordinating threatened and endangered species research and graduate intern projects;
- coordinating environmental education and student intern projects;

- providing natural resource interpretation staff and materials;
- providing fire crews for prescribed fires;
- providing road maintenance and personnel for manual labor projects; and
- coordinating vernal pool and wetland management.