

Section 6.0 Summary Comparison

6.1 OVERVIEW

Alternative 7, Revised Alternative 7, and Alternative 8 propose a level of development with less intensity than the alternative used for the 1993 NEPA ROD. The Army has initiated disposal actions consistent with the 1993 ROD. Section 6.0 provides a summary for the decision maker that compares the 1993 decision with new alternatives that may impact that decision. Therefore, the new alternatives are not compared to alternatives in the original EIS in Section 6.0. Table 6-1 shows a comparison of estimated population, housing, and employment for Alternative 7, Revised Alternative 7, Alternative 8, and the 1993 NEPA ROD. Alternative 8 has more dwelling units and thus a greater population buildout than Alternative 7; however, Alternative 7 provides more employment. As a result, the jobs/housing balance is improved under Alternative 8. Revised Alternative 7 has population and housing totals equal to those under Alternative 8 and an employment total below both those of Alternatives 7 and 8. Table 6-2 shows a comparison of the land use division of Alternative 7, Revised Alternative 7, Alternative 8, and the 1993 NEPA ROD. Table 6-3 shows a comparison of the proposed uses in Alternative 7, Revised Alternative 7, Alternative 8, and the 1993 NEPA ROD for only the newly excessed lands, revised use areas, and existing golf courses. Table 6-4 shows a comparison of proposed uses for the land use areas analyzed in Alternative 8.

Table 6-1. Population, Housing, and Employment Comparison of the 1993 NEPA ROD and Alternative 7, Revised Alternative 7, and Alternative 8

Reuse Plan	Estimated Population (Buildout)	Housing (Dwelling Units)	Employment (Jobs)
1993 NEPA ROD ^a	58,000	17,000	60,000
Alternative 7	41,500 ^b	13,800 ^c	58,500 ^c
Revised Alternative 7 ^d	45,000	15,000	38,800
Alternative 8 ^d	45,000	15,000	48,100

^a All 1993 NEPA ROD numbers are considered estimates; 1993 NEPA ROD land use proposal was not analyzed as a distinct land use scenario; employment estimate from Fort Ord Reuse Group 1993.

^b Number of dwelling units multiplied by 3 (AMBAG's 2015 forecast based on draft plan was 39,988).

^c Source: Fort Ord Reuse Authority 1995 (Table 3-3). On-campus student housing considered separately.

^d Army estimate.

Table 6-2. General Land Use Division Comparison

Land Use Division	Alternative 7	Revised Alternative 7	Alternative 8	ROD
Open space	62%	62%	61%	63%
Institutional/public	7%	6%	6%	5%
Commercial/business park	6%	4%	6%	8%
Industrial	6%	2%	6%	5%
Residential	6%	6%	6%	6%
Parks and recreation	5%	9%	6%	4%
Agricultural	3%	0%	3%	3%
Other	4%	4%	4%	6%
Tourism	1%	1%	1%	0%
Mixed use	0%	6%	1%	0%

Table 6-3. Current and Proposed Uses for Newly Excessed Lands, Revised Use Areas, and Existing Golf Courses

Parcel/ Area*	Current Status	Proposed Use ^b			
		Alternative 7 ^c (FORA Final Base Reuse Plan [December 1994])	Revised Alternative 7 ^c (Revised - FORA/HMP/RESR)	Alternative 8	ROD
1	Interim use by Veterans Administration, California National Guard, asbestos contractor, Army-related uses. The remainder consists of mothballed structures and facilities (Appendix A).	California State University, Monterey Bay: office park; transit center (16), 20e, (41)	Mixed use ^d (16), 20e, (41)	Mixed use ^d	Army
2	Golf courses (Appendix A)	Golf courses 22	Golf/resort hotel 22	--	Army
3	Mothballed structures and facilities (Appendix A)	Medium-density residential, resort hotel (20a)	Mixed use ^d (20a)	--	Medium-density residential
4	Vacant land	Transit center (41)	Mixed use ^d (41)	Mixed use	Army
5	Vacant land	Medium-density residential (20c)	Mixed use ^d (20c)	--	School
A	This area overlaps with the East Garrison historic district. Interim use by Veterans Administration and OE contractors. Three Superfund sites are located in this area and will not receive complete remediation for reuse until 1997 or later. Interim leases include the Veterans Administration, which is using buildings 113, 116, 117, 118, and 132 for warehouses and OE contractors, which are using the new ASP, 740 area, and 9300 area, as well as the MOUT site.	Public safety training center in agri-center area (11b)	N/A	--	Agri-center, RV park/ campground
B	Vacant land. Roads are closed and access is restricted in this area, as well as in other open space portions of former Fort Ord.	Bus transfer center 8c University science office 8b Light industrial (19a)	N/A	--	Transit center University science office Office park, community park
C	Mothballed structures and facilities	Light industrial (21b) Medium-density residential (18) Medium-density residential 21a High-tech business park 2c	N/A	Golf course/ residential/ community park -- -- -- --	Light industrial Office park Medium-density residential High-tech business park

Table 6-3. Continued

Parcel/ Area ^a	Current Status	Proposed Use ^b		
		Alternative 7 ^c (FORA Final Base Reuse Plan [December 1994])	Revised Alternative 7 ^c (Revised - FORA/HMP/RESR)	Alternative 8 ROD
D	Mothballed structures and facilities	Office park, medium-density residential (18)	N/A	Office park
E	Water tower and main electrical substation. These facilities are active and will be a continuation of existing uses that will serve the POM Annex. All electricity on former Fort Ord goes through the substation, which will be transferred to a new electricity purveyor.	None (18)	N/A	Office park
F	Vacant land. Roads are closed and access is restricted in this area, as well as in other open space portions of former Fort Ord.	Light industrial (21b)	N/A	Light industrial
G	Mothballed structures and facilities in caretaker status with restricted access	Medium-density residential, resort hotel (20a)	N/A	Medium-density residential
H	Mothballed structures and facilities with restricted access	Retail, central business district 15	N/A	Central business district
I	Interim use by Army for administration purposes (10-12 buildings) and by FORA for offices and storage (approximately four buildings). Remaining structures and facilities are mothballed.	High density residential, parks, public schools, commercial, office cultural center (2b)	N/A	High density residential, central business district
L	Mothballed structures and facilities in caretaker status. Scheduled for transfer in November 1995.	Monterey Institute for Research in Astronomy 40	N/A	High density residential, central business district
M	Mothballed structures and facilities	Retail 2a	N/A	Retail
N	Interim use of land and buildings by Army for outdoor storage and administrative purposes and of land in transit barrack area by Coastside Cable for trailer facility. Under McKinney Act transfers, interim and ultimate use of lodge by Shelter Plus, of shopette by YMCA, and of childcare facility by Children's Service International.	High-tech business park (2c)	N/A	School, university, high-tech business park
O	Interim use by Army for administrative offices (Corps and 109th Military Intelligence, equestrian center, veterinarian clinic. MARS is a closed facility that is mothballed.	Equestrian center 2g	N/A	High-tech business park
P	Reservoir in use by Army and will be transferred to ultimate user. Remainder consists of mothballed structures and facilities.	Retail, high density residential 2d	N/A	Retail, high density residential, transit center

Table 6-3. Continued

Parcel/ Area*	Current Status	Proposed Use ^b			
		Alternative 7 ^c (FORA Final Base Reuse Plan [December 1994])	Revised Alternative 7 ^c (Revised - FORA/HMP/RESR)	Alternative 8	ROD
Q	Interim use of maintenance yards by County of Monterey and City of Marina (one each). Interim use also by Army for reduced mission until relocated to POM Annex motor pool area.	Corporation yards 2e	N/A	--	Corporation yard
R	Vacant and mothballed structures and facilities	Aquaculture/marine research, desalination plant 13	N/A	--	Aquaculture
S	Mothballed structures and facilities. Considered historic structure to be transferred to the California Department of Parks and Recreation.	Multi-use/Asilomar 14a	N/A	--	Multi-use area, Asilomar-type facility
AA	Mothballed structures and facilities in caretaker status with restricted access. Some structures have been requested under McKinney Act transfers. The southern portion of the area is contaminated with volatile organic compounds underground from the landfill (see plumes shown in Figures 4-2 and 4-3).	N/A	Medium-density, residential/school/golf 4	N/A	Low-density residential
BB	In process of remediating groundwater contamination through the OJ2 demonstration site and capping with clay cap. The area is contaminated with volatile organic compounds underground from the landfill (see plumes shown in Figures 4-2 and 4-3). Remedial actions for groundwater plumes were in place and operation by early 1996, allowing property transfer.	N/A	Planned development/mixed use* (25% developed, 75% habitat) 8a	N/A	University research area
CC	Interim use of the developed area by the OE contractor for storage, training, and administrative purposes. The remainder of the area is undeveloped area in caretaker status with restricted access. This area may include OE considerations.	N/A	Planned development/mixed use*/POST facility 11b	N/A	Agri-center
DD	Vacant land. Roads are closed, and access is restricted in this area, as well as in other open space portions of former Fort Ord.	N/A	Office park/golf/low-density residential 19a	N/A	Office park, light industrial
EE	Vacant land. Roads are closed, and access is restricted in this area, as well as in other open space portions of former Fort Ord.	N/A	Resort hotel/golf/low-density residential 21a	N/A	Medium-density residential
FF	Vacant land. Roads are closed, and access is restricted in this area, as well as in other open space portions of former Fort Ord. This area has OE considerations.	N/A	Resort hotel/golf/low-density residential 21b	N/A	Light industrial

Table 6-3. Continued

Parcel/ Area ^a	Current Status	Proposed Use ^b		
		Alternative 7 ^c (FORA Final Base Reuse Plan [December 1994])	Revised Alternative 7 ^c (Revised - FORA/HMP/RESR)	Alternative 8 ROD
GG	Vacant land. Roads are closed, and access is restricted in this area, as well as in other open space portions of former Fort Ord. This area has OE considerations.	N/A	Medium-density residential/retail 23	N/A Resort hotel, natural resource management area
HH	Vacant land. Roads are closed and access is restricted in this area, as well as in other open space portions of former Fort Ord. This area has OE considerations.	N/A	Natural resource management area/transit (25)	N/A Office park, natural resource management area

^a - Proposed use in this area is the same as Alternative 7.

N/A = not applicable.

^b The numbers and letters in the column correspond with those in Figure 4-1 and the foldout General Reference Maps.

^c All the proposed land use definitions are similar between the alternatives and ROD. Land uses (except mixed use) for all three alternatives are specifically described in the FORA Final Base Reuse Plan (December 1994) (Fort Ord Reuse Authority 1994).

^d The polygon number is indicated below the proposed use. Parentheses indicate that only a portion of the identified polygon is included in this area described.

^e The mixed use area could include residential, business park, office park, light industrial, retail, institutional, university, community college, school, equestrian center, transit center uses, transit right-of-way, and habitat.

Table 6-4. Proposed Uses for Land Use Areas Analyzed in Alternative 8

Area ^a	Proposed Use ^b			
	Alternative 7 ^c	Revised Alternative 7 ^c	Alternative 8	ROD
GOLF (northern) (in polygon 8a)	Landfill research area 8a	Planned development/ mixed use (25% developed, 75% habitat) 8a	Golf course	University research area
GOLF (southern) (in polygon 19a)	Light industrial (19a)	Office park/golf/low- density residential (19a) Community park (17a)	Golf course/residential	Office park/mixed use ^d
CPRK	Community park 17a Habitat preserve (11a) Light industrial (19a) RV park/campground (17b)	Community park 17a Habitat preserve (11a)	Community park	Community park University Office park/mixed use ^d
MU	Institutional/office park (20d) Medium density residential/office park (18)	Institutional/office park (20d) DFAS/golf (18a)	Mixed use (office park, institutional, university, community college, transit center)	Government center/residential
T (along southern and eastern border)	Natural resources management area (25)	Transportation corridor/transit facilities (25)	Transportation corridor (along southern and eastern border)	Natural resources management area Office park

^a The area indicated in the column corresponds with those in Figure 3-6 and the second foldout General Reference Map.

^b All the proposed land use definitions are similar between the alternatives and 1993 NEPA ROD. Land uses (except mixed use) for the alternatives are specifically described in the FORA Final Base Reuse Plan (December 1994) (Fort Ord Reuse Authority 1994).

^c The FORA polygon number is indicated with the proposed use. Parentheses indicate that only a portion of the identified polygon is included in this area described.

^d Office park was shown in the local base reuse plan, but mixed use (residential, commercial, and light industrial) was analyzed in the final EIS.

6.2 ALTERNATIVE 7 VERSUS 1993 NEPA ROD

6.2.1 Land Use

Although the overall land use division is similar (Table 6-2), Alternative 7 proposes less extensive redevelopment compared to the 1993 NEPA ROD (Table 6-1 and Figures 3-2 and 6-1). The total number of jobs under the 1993 NEPA ROD would be 3% greater than under Alternative 7. Total dwelling units would be 23% greater, with a 40% increase in population. It should be noted that a different population rate (3.4 people per dwelling unit) was used for the 1993 NEPA ROD. A rate of three people per dwelling unit was used for Alternative 7. On-campus student housing was considered separately for Alternative 7.

6.2.2 Socioeconomics

At full buildout of installation properties, net population and housing levels would be less under Alternative 7 than under the 1993 NEPA ROD because of the less intensive development proposed overall (Tables 5-12 and 6-1). The population under Alternative 7 would be approximately 41,500 compared to 58,000 under the 1993 NEPA ROD. Similarly, approximately 13,800 housing units would be constructed or rehabilitated on installation properties under Alternative 7 compared to 17,000 units under the 1993 NEPA ROD.

At full buildout of installation properties, direct regional economic effects would be smaller under Alternative 7 than under the 1993 NEPA ROD. The direct employment under Alternative 7 would be approximately 58,500 jobs compared to approximately 60,000 jobs under the 1993 NEPA ROD, representing a decrease of about 3%. Similarly, approximately \$4.3 billion in direct industrial output and \$1.8 billion in net personal income would be generated under Alternative 7 compared to \$4.4 billion in output and \$1.8 billion in personal income under the 1993 NEPA ROD.

Social services effects under Alternative 7 would be similar to those under the 1993 NEPA ROD. Impacts on medical services available to military retirees would be greater under Alternative 7 than under the 1993 NEPA ROD because no regional medical facility would be developed under Alternative 7.

6.2.3 Soils, Geology, Topography, and Seismicity

The extent of existing soils in a natural and seminatural condition that would be developed or altered, and the extent of developed areas that would be subject to wind erosion, water erosion, and landslide hazard impacts, is approximately the same for Alternative 7 as for the 1993 NEPA ROD.

6.2.4 Public Services and Utilities

Table 6-5 compares the public services and utilities requirements of Alternative 7 and the 1993 NEPA ROD. Overall, the public services and utilities requirements of Alternative 7 are less than those of the 1993 NEPA ROD, except for parks.

6.2.5 Water Resources

The hydrologic and water quality impacts of Alternative 7 are similar to those for the 1993 NEPA ROD. Because more urbanization would occur under the ROD plan than under Alternative 7, the 1993 NEPA ROD would be expected to have somewhat greater magnitudes of the same impacts. The 1993 NEPA ROD would generate increased site runoff, which would require construction of a greater number of onsite drainage facilities. The ROD would have an increased risk of flooding, which would require restrictions on floodplain development or construction of drainage facilities with an increased capacity. Additional mitigation, in the form of drainage facilities, stormwater discharge permits, erosion control structures, and hazardous material control plans, also would be needed.

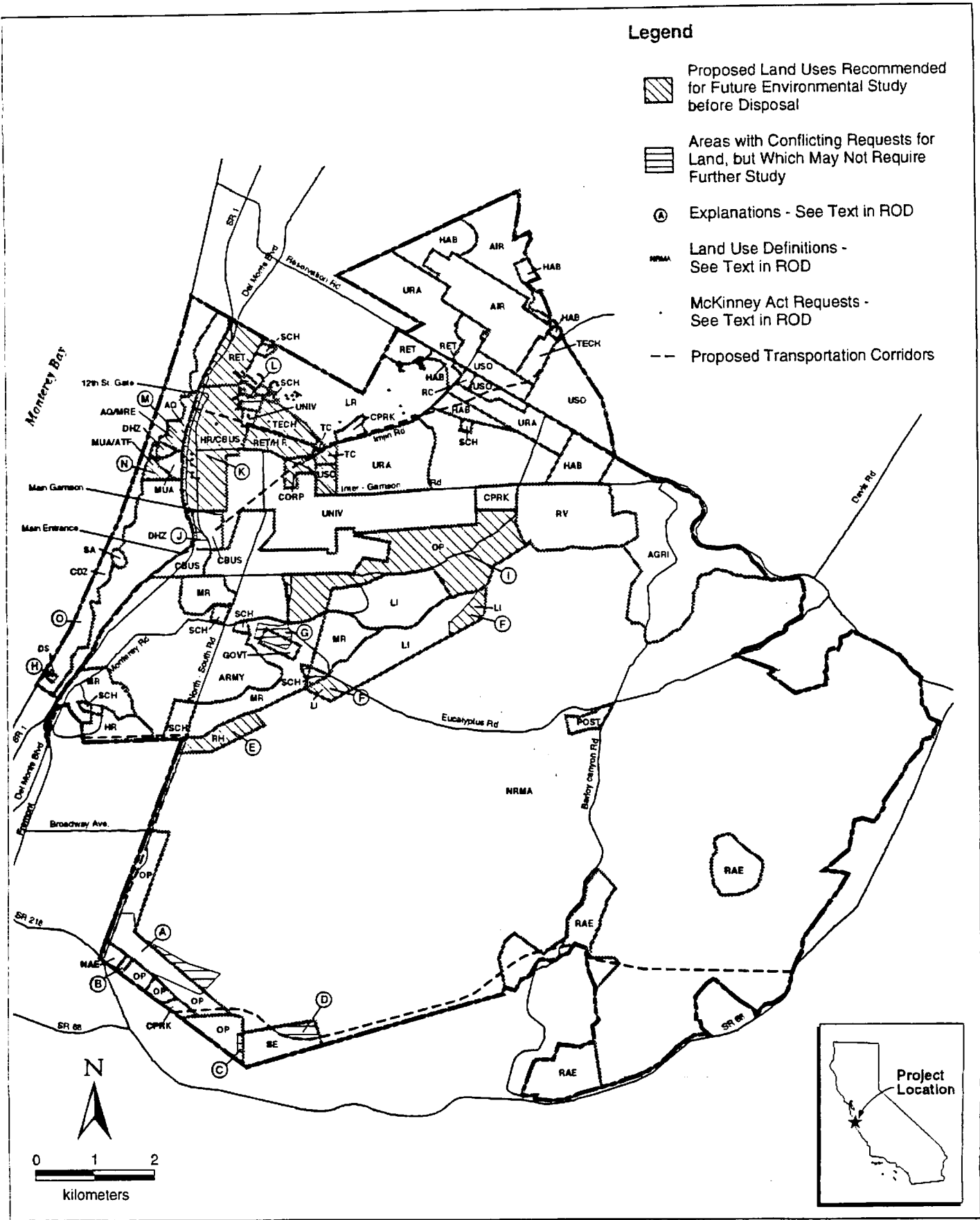


Figure 6-1
Fort Ord Disposal and Reuse
Modified Alternative

Table 6-5. Comparison of Public Services, Utilities, and Water Requirements between Alternative 7 and the 1993 NEPA ROD

Public Service or Utility	ROD	Alternative 7
Wastewater generation (mgd)	28.3	27.8
Additional capacity required (mgd)	+1.3	+0.8
Solid waste generation (TPD)	248	177
Landfill life (years)	87	86
Telephone service (acres of service area)	9,390	9,065
Gas service (MCFH)	3,392	2,637
Electric service (MW peak use)	387	273
Cable television (acres of service area)	4,598	4,518
Storm drainage system (developed acreage)	980	520
Water distribution system (acres of service area) ^a	6,250	6,050
Water demand (af/yr) (local safe yield of groundwater basins = 5,100 af/yr)	17,000	16,900
Developed parks (acres) ^b	1,668	1,725
Undeveloped open space (acres) ^c	18,059	17,026
Schools (students generated)	10,200	8,300

^a Calculations assume that 25% of existing water infrastructure needs to be replaced.

^b This includes community and neighborhood parks, golf courses, an RV park, an equestrian center, recreation area expansion, and a multi-use/Asilomar-type facility.

^c Undeveloped open space includes the NRMA, natural area expansion, habitat preservation areas, coastal dunes, disturbed habitat space, and university research areas.

Notes: af/yr = acre-feet per year.
MCFH = million cubic feet per hour.
mgd = million gallons per day.
MW = megawatts.
TPD = tons per day.

The estimated water demand for Alternative 7 is approximately 16,900 af/yr, or 11,800 af/yr greater than under baseline conditions (5,100 af/yr). The water demand for the 1993 NEPA ROD differs from the water demand calculated in the final EIS because the ROD specified uses for areas that had been designated "no proposed use" in the final EIS. The boundaries of some polygons also were different. The water demand for the ROD generally would be similar to that for Alternative 7. However, differences in land use on 12 polygons (2g, 5b, 8a, 8d, 11b, 12a, 18, 20a, 20d, 20e, 23, and 29a) would be associated with differences in water demand, and in most cases the water demand would be greater under Alternative 7. The largest increases from the 1993 NEPA ROD to Alternative 7 include irrigation at the landfill research area (66 af/yr), addition of POST facilities to the agri-center (31 af/yr), addition of a proposed resort hotel on polygon 20a (143 af/yr), more intensive institutional and office park use of polygon 20d (114 af/yr), development of office space in the newly excessed area containing student dormitories (150 af/yr), and the addition of residential development on polygon 23 (96 af/yr). These increases are offset due to the reduced demand in the POM Annex; recent estimates reduce POM Annex demand from approximately 2,500 af/yr to 1,729 af/yr. Overall, therefore, the water demand for Alternative 7 would be approximately 100 af/yr less than the water demand under the 1993 NEPA ROD (17,000 af/yr).

6.2.6 Public Health and Safety

Table 6-6 compares impacts on public health and safety under Alternative 7 and under the 1993 NEPA ROD. Alternative 7 would have a similar or slightly increased requirement for public health and safety resources.

Table 6-6. Comparison of Public Health and Safety Requirements between Alternative 7 and the 1993 NEPA ROD

Public Health and Safety Issue of Concern	1993 NEPA ROD	Alternative 7
Law enforcement (number of law enforcement officers)	119	127
Fire protection (number of firefighters)	58	62
Medical/emergency medical services (population requiring services)	58,000	41,500 ^a
Seismic safety (population at risk)	118,000	100,000 ^a

^a In addition, up to 20,000 university students may be housed on-campus in the Fort Ord area.

6.2.7 Traffic and Circulation

The traffic and circulation impacts of land uses included in the 1993 NEPA ROD have not been analyzed quantitatively under a comprehensive development scenario because a quantitative estimate of trips and traffic volumes that would be generated under the ROD was not prepared. Therefore, a precise quantitative comparison of traffic and circulation impacts that would result under Alternative 7 and under the 1993 NEPA ROD is not possible. However, an analysis based on projected employment and housing levels provides a generalized comparison of the relative impacts.

Alternative 7 is projected to result in employment of approximately 58,500 jobs compared to the 60,000 jobs projected to result under the 1993 NEPA ROD. Housing under Alternative 7 is estimated to be approximately 13,800 dwelling units compared to 17,000 under the ROD. The relative levels of employment and housing are a good indicator of the probable levels of traffic and circulation impacts that would result with implementation of Alternative 7 and the 1993 NEPA ROD.

Based on the information presented above, the 1993 NEPA ROD would result in approximately 3% more jobs and 23% more dwelling units than Alternative 7. Therefore, the ROD is estimated to generate 10-15% more trips than Alternative 7. Land uses in the former Fort Ord area are expected to generate 435,139 trips under Alternative 7. Therefore, land uses in the Fort Ord area would be expected to generate 479,000-500,000 trips under the 1993 NEPA ROD.

The lower levels of employment and housing that would result from implementation of Alternative 7 would result in trip generation and traffic volumes that are substantially lower than those expected under the 1993 NEPA ROD.

6.2.8 Air Quality

Table 6-7 compares emissions generated under Alternative 7 with emissions generated under the 1993 NEPA ROD. For each alternative, emissions are shown for construction and operational activities.

Table 6-7. Comparison of Air Emissions (Pounds per Day) between Alternative 7 and the 1993 NEPA ROD

Emission Activity	Alternative 7				1993 NEPA ROD ^a			
	ROG	NO _x	CO	PM10	ROG	NO _x	CO	PM10 ^b
Construction	5	63	23	56 (29)	14	181	64	97 (55)
Operation	3,739	5,475	99,280	2,747	4,346	6,305	114,119	3,255

^a These estimates are based on the traffic estimates indicating that the 1993 NEPA ROD would generate 10-15% more trips than Alternative 7. The worst-case figures (15%) are shown in this table.

^b Construction impacts for Alternative 7 are based on phased construction through 2045; the 1993 NEPA ROD assumes buildout by the year 2010.

Note: Numbers in parentheses represent PM10 emissions with mitigation.

At full buildout, the 1993 NEPA ROD would generate 60,000 jobs, 3% more than Alternative 7 (58,500 jobs). Implementation of the ROD also would result in 17,000 dwelling units, 23% more than under Alternative 7 (13,800 units). These percentage increases translate into a 10-15% increase in vehicle trips associated with the 1993 NEPA ROD compared with Alternative 7.

Operational emissions consist of both motor vehicle and area source emissions. ROD motor vehicle emissions were calculated by multiplying motor vehicle emissions under Alternative 7 by the percentage increase in vehicle trips under the 1993 NEPA ROD (10-15%). ROD area source emissions were estimated by multiplying Alternative 7 emissions by the ROD's percentage increase in dwelling units (23%). ROD construction emissions were based on Alternative 7's ratio of construction to operational emissions multiplied by the ROD operational emission estimates.

6.2.9 Noise

A comparison between traffic and circulation impacts of the land uses associated with Alternative 7 and the 1993 NEPA ROD is provided under Section 6.2.7, "Traffic and Circulation". As discussed there, a precise quantitative comparison cannot be made because a quantitative estimate of trips and traffic volumes that would be generated by the ROD has not been prepared. The 1993 NEPA ROD is therefore estimated to generate 10-15% more trips than Alternative 7. Traffic noise is directly related to traffic volume. As the traffic volume increases, so does traffic noise. However, the traffic volume has to double before the noise will increase perceptibly. Assuming that the distribution of traffic under each alternative is about the same, traffic noise levels under the 1993 NEPA ROD would be no more than about 1 dB more than under Alternative 7. If one alternative tends to concentrate traffic onto one roadway, the difference between the two alternatives could be greater.

Table 6-8 summarizes the vehicle trips generated under each alternative, the ratio of trips generated, and the degree to which traffic noise under the 1993 NEPA ROD would be greater than under Alternative 7 based on this ratio. From the perspective of noise, there is little if any difference between the two alternatives.

Table 6-8. Comparison of Overall Traffic Noise Generated under Alternative 7 and the 1993 NEPA ROD

	Alternative 7	1993 NEPA ROD	Comparison
Vehicle trips generated by land uses in former Fort Ord area	435,139	479,000- 500,000	
Ratio of 1993 NEPA ROD vehicle trips generated versus Alternative 7 vehicle trips generated	N/A	N/A	1.10 to 1.15
Degree to which traffic noise under 1993 NEPA ROD would be greater than under Alternative 7	N/A	N/A	0.4 to 0.6 dB

6.2.10 Hazardous and Toxic Waste Site Remedial Action

Hazardous and toxic waste site remedial action impacts under Alternative 7 are similar to those under the 1993 NEPA ROD. Differences between the two reuse alternatives are primarily increases or decreases in the proposed extent and density of urban development. However, in both alternatives, most development is restricted to areas that were developed previously. There are two key areas of difference between the alternatives:

- the southwestern corner of former Fort Ord where revised use areas F2 and F3 are located and
- polygons 16, 19b, and 20e.

In Alternative 7, polygons 24 and 29a are identified as office park and golf course in the southwest portion of the base. These polygons extend eastward into the NRMA described in the 1993 NEPA ROD. The NRMA is a low-intensity land use that would not require extensive cleanup to protect human and environmental health and safety. Development of high-intensity land uses, such as the proposed office park and golf course within the inland range, may require a much greater level of hazardous material cleanup. Because detailed human and environmental health risk assessments were made based on the anticipated future land uses, the proposed cleanup activities that were developed for the NRMA may not be consistent with the expressway, golf course, and office park land uses proposed for polygons 24 and 29a. The Army

will remediate the areas as described in the FFA and CERCLA ROD. The future land use proponents could be responsible for the costs of any required changes in cleanup activities.

In Alternative 7, polygon 20e and part of polygons 16 and 41 are proposed for university, office park, and transit center uses. These polygons were retained in the 1993 NEPA ROD reuse as part of the POM Annex. It is likely that many of the existing buildings will be remodeled or demolished to implement the proposed land uses. These buildings may have been constructed using asbestos-containing materials (ACM), polychlorinated biphenyls (PCBs), and lead. These materials are considered hazardous and will require special handling techniques and disposal methods to ensure protection of human and environmental health. This is the same potential impact described in the 1993 NEPA ROD for reuse or demolition of any of the existing buildings at former Fort Ord.

The approved hazardous and toxic waste site remedial action activities underway would not be affected by the proposed land use changes in Alternative 7. Detailed human and environmental health risk assessments were conducted for each hazardous and toxic waste site. Several exposure scenarios were analyzed (e.g., worker, infant resident) for each site. The potential exposure scenarios under the new uses in Alternative 7 are consistent with those developed from the 1993 NEPA ROD.

6.2.11 Ordnance and Explosives

OE investigation and removal activities for Alternative 7 are similar to those under the 1993 NEPA ROD. The primary differences are the proposed uses in the revised use areas F1, F2, and F3.

In Alternative 7, polygons 24 and 29a are identified as office park and golf course in the southwest portion of the base. These polygons extend eastward into the NRMA described in the 1993 NEPA ROD. The NRMA, which includes the former inland ranges, is a low-intensity land use that would not require deep subsurface clearance of OE to permit anticipated uses, such as pedestrian and equestrian access. Development of high-intensity land uses, such as the proposed office park and golf course within the inland range, would require a much greater level of OE cleanup. The Site Use Management Plan for Land Transfer and Reuse (U.S. Army Corps of Engineers 1995a) identifies unrestricted use to depth of clearance in these areas.

6.2.12 Vegetation, Wildlife, and Wetland Resources

Summary. Acres of impact for biological resources under Alternative 7 as a whole are shown in Tables 5-17 (biological communities), 5-18 (special-status plant species), and 5-19 (special-status wildlife species). For some resources, impacts under Alternative 7 are less than those described in the 1993 NEPA ROD. In almost all cases where Alternative 7 has a greater effect, the increase is not considered significant, except for impacts on Smith's blue butterfly. However, the Army will dispose of property west of SR 1 (where Smith's blue butterflies occur) in a manner consistent with the February 1994 HMP and Draft Revised HMP and 1994 coastal consistency determination. Under these disposal conditions, additional impacts on the Smith's blue butterfly would not occur.

Considering acres considered habitat reserve in the alternative, the overall result is a loss of an additional approximately 240 acres of area identified as habitat reserve under Alternative 7 compared to the February 1994 HMP (the February 1994 HMP reuse scenario matches the reuse scenario described in the 1993 NEPA ROD).

6.2.13 Visual Resources

Both alternatives propose a mosaic of residential, commercial, and light industrial land uses. Visual impacts in the coastal corridor would be approximately the same for both alternatives.

Visual impacts from the development of interior land uses would be generally the same but slightly greater under Alternative 7 than under the 1993 NEPA ROD. This increase is attributable primarily to the conversion of newly excessed lands to other uses and new, more visible development in the revised use areas. Newly excessed lands assumed to be retained in existing uses in the 1993 NEPA ROD would be converted to new uses with accompanying removal of some structures and facilities and construction of new buildings. These new uses and associated construction could increase visual impacts in the newly excessed lands. Major differences in the plans include the new hotel site next to the existing golf course in revised use area G.

Development proposed adjacent to state-designated scenic roadway SR 68 would have a similarly high visual impact potential under both Alternative 7 and the 1993 NEPA ROD reuse scenario.

6.2.14 Cultural Resources

Effects on cultural resources under Alternative 7 have the potential to be slightly more severe than those under the 1993 NEPA ROD. Land use changes on or adjacent to Stilwell Hall would be similar. Alternative 7 introduces the potential for public safety training and transportation system uses in the East Garrison area, in addition to agri-center uses. NRHP-eligible properties at Fort Ord, including Stilwell Hall and the East Garrison Historic District, will be disposed of in accordance with the provisions of the 1994 programmatic agreement between the Army, the California SHPO, and the Advisory Council on Historic Preservation (Appendix C).

6.2.15 Coastal Resources

Alternative 7 and the 1993 NEPA ROD both propose similar land uses in the coastal zone portion of former Fort Ord and thus would have similar direct impacts on coastal resources. The buildout of the plan in the 1993 NEPA ROD would generate a higher level of population and employment compared to Alternative 7. Thus, the 1993 NEPA ROD would have a greater level of indirect impacts on coastal resources. The potential impacts on sanctuary resources of Alternative 7 are similar to those described in the 1993 NEPA ROD.

6.3 REVISED ALTERNATIVE 7 VERSUS THE 1993 NEPA ROD

6.3.1 Land Use

Although the overall land use division is similar (Table 6-2), Revised Alternative 7 proposes less extensive redevelopment compared to the 1993 NEPA ROD (Table 6-1 and Figures 3-4 and 6-1). Compared to Revised Alternative 7, the 1993 NEPA ROD would result in 55% more jobs, 13% more dwelling units, and a 29% increase in population. It should be noted that a different population rate (3.4 people per dwelling unit) was used for the 1993 NEPA ROD, while a rate of three people per dwelling unit was used for Revised Alternative 7. On-campus student housing was considered separately for Revised Alternative 7.

6.3.2 Socioeconomics

As discussed under "Land Use" above, at full buildout of installation properties, net population, housing, and employment levels would be less under Revised Alternative 7 than under the 1993 NEPA ROD (Tables 6-1, 5-29, and B-2). The population under Revised Alternative 7 would be approximately 45,000 compared to approximately 58,000 under the 1993 NEPA ROD, representing a 22% decrease. Similarly, Revised Alternative 7 includes approximately 15,000 housing units that would be constructed or rehabilitated on installation properties compared to approximately 17,000 housing units under the 1993 NEPA ROD, representing a 12% decrease.

At full buildout of installation properties, direct regional economic effects would be smaller under Revised Alternative 7 than under the 1993 NEPA ROD. The direct employment under Revised Alternative 7 would be approximately 38,800 jobs compared to approximately 60,000 total jobs under the 1993 NEPA ROD, representing a 35% decrease. Approximately \$2.3 billion in direct industrial output and \$1 million in net personal income would be generated under Revised Alternative 7 compared to approximately \$4.4 billion in output and \$1.8 million in personal income under the 1993 NEPA ROD.

Overall the jobs/housing balance improves under Revised Alternative 7 (1.44) compared to the 1993 NEPA ROD (1.59); this ratio considers the cumulative countywide jobs/housing balance.

Social services effects under Revised Alternative 7 would be similar to those under the 1993 NEPA ROD. Impacts on medical services available to military retirees would be greater under Revised Alternative 7 than under the 1993 NEPA ROD because no regional medical facility would be developed under Revised Alternative 7.

6.3.3 Soils, Geology, Topography, and Seismicity

The extent of existing soils in a natural and seminatural condition that would be developed or altered and the extent of developed areas that would be subject to wind erosion, water erosion, and landslide hazard impacts is slightly greater (1-6%) for Revised Alternative 7 than for the 1993 NEPA ROD.

6.3.4 Public Services and Utilities

Requirements for public services and utilities are driven by the intensity of land development that is proposed. Under the 1993 NEPA ROD, buildout of former Fort Ord would result in approximately 60,000 jobs and 17,000 dwelling units. Buildout of Revised Alternative 7 would result in approximately 21,000 fewer jobs and approximately 2,000 fewer dwelling units. Based on these differences, which indicate that a more intense level of development would be associated with the 1993 NEPA ROD scenario, buildout of the 1993 NEPA ROD land use scenario would create a greater demand for public services and utilities compared to Revised Alternative 7.

6.3.5 Water Resources

The hydrologic and water quality impacts of Revised Alternative 7 would not be substantially different from those created by the land use scenario contained in the 1993 NEPA ROD. The percentages of land committed to commercial/business park, industrial and agricultural uses would be smaller in Revised Alternative 7, while acreages of parks and recreation and mixed uses would be greater. The 1993 NEPA ROD land uses generally represent a slightly more urbanized development proposal compared to Revised Alternative 7. Consequently, Revised Alternative 7 would generate slightly reduced site runoff, risk of flooding, and needs for improvement in the onsite drainage facilities. Mitigation for these types of impacts, in the form of stormwater discharge permits, erosion control structures, and hazardous materials control plans, would still be needed.

The estimated water demand for Revised Alternative 7 is 17,000 af/yr, or 11,900 af/yr greater than under baseline conditions. As indicated in the comparison with Alternative 7, the 1993 NEPA ROD land use scenario is estimated to generate an annual demand of 17,000 af. These two land use scenarios are, therefore, essentially the same in terms of water demand.

6.3.6 Public Health and Safety

Table 6-9 provides a comparison of service requirements for build out of the 1993 NEPA ROD and Revised Alternative 7. Service requirements for the 1993 NEPA ROD will be slightly less than requirements for Revised Alternative 7.

Table 6-9. Comparison of Public Health and Safety Requirements between Revised Alternative 7 and the 1993 NEPA ROD

Public Health and Safety Issue of Concern	Revised Alternative 7	1993 NEPA ROD
Law enforcement (number of law enforcement officers)	135	119
Fire protection (number of firefighters)	66	58
Medical/emergency medical services (population requiring services)	45,000 ^a	58,000
Seismic safety (population at risk)	103,854	118,000

^a In addition, up to 20,000 university students may be housed on campus in the Fort Ord area.

6.3.7 Traffic and Circulation

As described in Section 6.2.7, land use as described in the 1993 NEPA ROD is estimated to generate approximately 479,000- 500,000 vehicle trips. Under Revised Alternative 7, approximately 395,000-405,000 total vehicle trips would be generated. This equates to between approximately 74,000 and 105,000 more vehicle trips under the 1993 NEPA ROD compared to buildout of Revised Alternative 7. Buildout of the land use scenario for the 1993 NEPA ROD would result in approximately 18- 27% more vehicle trips than buildout of Revised Alternative 7.

6.3.8 Air Quality

Table 6-10 includes a comparison of emissions from construction and operational activities generated under Revised Alternative 7 and under the 1993 NEPA ROD. Operational emissions consist of both motor vehicle and area source emissions. As described in Section 6.3.7 above, the 1993 NEPA ROD would result in 18-27% more vehicle trips than Revised Alternative 7, which accounts for greater operational impacts under the 1993 NEPA ROD. Construction of 55% more employment-generating uses and 13% more housing units accounts for greater construction, as well as operational, impacts under the 1993 NEPA ROD.

Table 6-10. Comparison of Air Emissions (Pounds per Day)
between Revised Alternative 7 and the 1993 NEPA ROD

Emission Activity	Revised Alternative 7 ^a				1993 NEPA ROD ^b			
	ROG	NO _x	CO	PM10	ROG	No _x	CO	PM10 ^c
Construction	5	66	24	59 (30)	14	181	64	97 (55)
Operation	3,476	5,046	91,399	2,577	4346	6305	114119	3255

- ^a These estimates are based on information contained in Tables 5-24 and 5-25 in Section 5.3.2.
- ^b These estimates are based on the traffic estimates indicating that the 1993 NEPA ROD would generate 10-15% more trips than Alternative 7 (refer to Sections 6.2.7 and 6.2.8). The worst-case figures (15%) are shown in this table.
- ^c Construction impacts for Revised Alternative 7 are based on phased construction through 2045; the 1993 NEPA ROD assumes buildout by the year 2010.

Note: Numbers in parentheses represent PM10 emissions with mitigation.

6.3.9 Noise

Traffic noise is directly related to traffic volume. As the traffic volume increases, so does traffic noise. However, the traffic volume must double before the noise will increase perceptibly. As described in Section 6.3.7, it is estimated that the 1993 NEPA ROD would result in approximately 18-27% more vehicle trips than Revised Alternative 7.

Table 6-11 summarizes the vehicle trips generated, the ratio of trips generated, and the degree to which traffic noise under the 1993 NEPA ROD would be greater than under Revised Alternative 7 based on this ratio. There would be little if any discernible cumulative noise difference between the two alternatives.

Table 6-11. Comparison of Overall Traffic Noise Generated
under Revised Alternative 7 and the 1993 NEPA ROD

	Revised Alternative 7	1993 NEPA ROD	Comparison
Vehicle trips generated by land uses in former Fort Ord area	395,000- 405,000	479,000- 500,000	
Ratio of 1993 NEPA ROD vehicle trips generated versus Revised Alternative 7 vehicle trips generated	N/A	N/A	1.18 to 1.27
Degree to which traffic noise under 1993 NEPA ROD would be greater than under Revised Alternative 7	N/A	N/A	0.7 to 1.0 dB

6.3.10 Hazardous and Toxic Waste Site Remedial Action

Hazardous and toxic waste site remedial action impacts under Revised Alternative 7 are similar to those under the 1993 NEPA ROD. However, newly excessed lands (particularly polygon 20e and part of polygons 16 and 41), which are proposed for mixed uses under Revised Alternative 7 and which were retained

as part of the POM Annex in the 1993 NEPA ROD, may have been constructed using ACM, PCBs, and lead. These materials are considered hazardous and will require special handling techniques and disposal methods to ensure protection of human and environmental health. This is the same potential impact described in the 1993 NEPA ROD for reuse or demolition of any of the existing buildings at former Fort Ord.

The approved hazardous and toxic waste site remedial action activities underway would not be affected by proposed land use changes in Revised Alternative 7. Detailed human and environmental health risk assessments were conducted for each hazardous and toxic waste site. Several exposure scenarios were analyzed (i.e., worker, infant resident) for each site. The potential exposure scenarios under the new uses in Revised Alternative 7 are consistent with those developed from the 1993 NEPA ROD.

The Army will remediate the areas described in the FFA and CERCLA ROD. The future land use proponents would be responsible for the costs of any required changes in cleanup activities.

6.3.11 Ordnance and Explosives

OE investigation and removal activities of Revised Alternative 7 are similar to those under the 1993 NEPA ROD. However, polygons that were part of the NRMA area (low-intensity land use not requiring extensive cleanup) in the 1993 NEPA ROD and are now proposed for more intensive uses may require an increased level of OE cleanup. These include the expanded portion of polygon 23 (revised use area GG), proposed for retail/ medium-density residential; polygon 24, proposed for medium-density residential; possibly 29a, proposed for golf course/resort hotel/office park uses; and possibly the western and southern transit use labeled as revised use area HH. The Site Use Management Plan for Land Transfer and Reuse (U.S. Army Corps of Engineers 1995a) identifies unrestricted use to depth of clearance in these areas.

6.3.12 Vegetation, Wildlife, and Wetland Resources

Impacts on biological resources under Revised Alternative 7 were analyzed by comparing the alternative with the February 1994 HMP. The February 1994 HMP was based on the land use plan included in the 1993 NEPA ROD; therefore, comparisons to the February 1994 HMP equate to a comparison with the ROD.

Increases and decreases in acres of impact were calculated for areas identified as habitat reserve and for key HMP resources (Smith's blue butterfly, sand gilia, Monterey spineflower, and Seaside bird's-beak). Implementation of Revised Alternative 7 would result in a conversion to some other use of an additional 370 acres of area considered habitat reserve in the February 1994 HMP. Although Revised Alternative 7 includes mitigation to minimize impacts on biological resources attributable to road and other development (reducing the amount of habitat reserve area converted to some other use), it also includes the conversion of area considered NRMA to T areas requested by BLM and the development of 25% of the landfill area agreed to as part of the Draft Revised HMP. These items again increase the total amount of area considered habitat reserve in the February 1994 HMP being converted to some other use.

Impacts on Smith's blue butterfly would be the same under Revised Alternative 7 as under the 1993 NEPA ROD. Impacts on areas supporting low- and medium-density populations of sand gilia would be increased by 114 and 3 acres, respectively. Impacts on areas supporting high-density populations of sand gilia would be decreased by 8 acres under Revised Alternative 7 compared to the 1993 NEPA ROD. Impacts on areas supporting low- and medium-density populations of Monterey spineflower would be increased by 183 and 62 acres, respectively. Impacts on areas supporting high-density populations of Monterey spineflower would be decreased by 7 acres. Impacts on areas supporting low-density populations of Seaside bird's-beak would be increased by 25 acres.

6.3.13 Visual Resources

Revised Alternative 7 and the 1993 NEPA ROD propose a mosaic of mixed development. Visual impacts in the coastal zone would be less under Revised Alternative 7, which does not include an Asilomar-type facility or coastal road.

Visual impacts from the development of interior land uses generally would be the same for each scenario but possibly would be slightly greater under Revised Alternative 7 than under the 1993 NEPA ROD. This increase is attributable primarily to the conversion of newly excessed lands to other uses and new, potentially more visible development in the revised use areas. Development proposed adjacent to state-designated scenic roadway SR 68 would have similar visual impacts under both Revised Alternative 7 and the 1993 NEPA ROD.

6.3.14 Cultural Resources

Two primary cultural resource areas have been identified on former Fort Ord: Stilwell Hall in the coastal zone and the East Garrison Historic District. Effects on Stilwell Hall would be less under Revised Alternative 7 than under the 1993 NEPA ROD because the 1993 NEPA ROD contains an Asilomar-type facility near Stilwell Hall and Revised Alternative 7 does not. Effects on the East Garrison Historic District could be greater under Revised Alternative 7 than under the 1993 NEPA ROD because Revised Alternative 7 includes public safety training uses in addition to other uses similar to those described in the 1993 NEPA ROD.

NRHP-eligible properties at Fort Ord, including Stilwell Hall and the East Garrison Historic District, will be disposed of in accordance with the provisions of the 1994 programmatic agreement between the Army, the California SHPO, and the Advisory Council on Historic Preservation (Appendix C).

6.3.15 Coastal Resources

Revised Alternative 7 would have less impact on coastal zone resources than the 1993 NEPA ROD because the 1993 NEPA ROD contains an Asilomar-type facility near Stilwell Hall in the coastal zone and Revised Alternative 7 does not. Further, buildout under the 1993 NEPA ROD would generate a higher level of population, housing, and employment than buildout under Revised Alternative 7 and thus would have a greater level of indirect impacts on coastal zone resources. The potential impacts on sanctuary resources of Revised Alternative 7 would be slightly less than described for the 1993 NEPA ROD.

6.4 ALTERNATIVE 8 VERSUS 1993 NEPA ROD

Generally, development under Alternative 8 is less intensive than development proposed under the 1993 NEPA ROD although the land use division is similar (Table 6-2). The discussion below provides a comparison of the two alternatives.

Alternative 8 represents a reduced level of development compared to the 1993 NEPA ROD, with fewer dwelling units, less population, and fewer jobs created at buildout (Table 6-1). Direct regional economic effects would be smaller under Alternative 8 as a result. Compared to the 1993 NEPA ROD, Alternative 8 would have a slightly higher overall water use, an increase of approximately 200 af/yr. Trip generation and traffic volumes, as well as air quality and noise impacts attributable to vehicle traffic, would be lower under Alternative 8 than under the ROD. Alternative 8 and the 1993 NEPA ROD do not differ substantially regarding their impacts on vegetation and wildlife when only reuse parcels are examined because the total amount of land to be developed in each is approximately the same. If the proposed road network is included in the Alternative 8 analysis, impacts on biological resources would be greater than for the 1993 NEPA ROD plan; however, implementation of the mitigation measures agreed to by the Army, USFWS, UC, and FORA on March 15 and 28, 1996 (included as part of Revised Alternative 7), would reduce these impacts to levels at which Alternative 8 is again similar (although somewhat greater than) the 1993 NEPA ROD. Regarding

cultural and visual resources, the two alternatives propose development on approximately the same amount of land, so the overall impacts of each would be similar. The only difference would be that the public safety training facilities of Alternative 8 in the East Garrison area would have a potentially greater impact on the East Garrison Historic District. The direct impacts on the coastal zone for the development of Alternative 8 would be approximately the same as the impacts for the 1993 NEPA ROD. The indirect impacts on the coastal zone would be somewhat less for Alternative 8 because its overall intensity of development is slightly less than proposed in the 1993 NEPA ROD.

