6.17 SECONDARY AND CUMULATIVE EFFECTS OF REUSE IN NO PROPOSED USE AREAS

6.17.1 Introduction

In Alternative 6R, the Army identifies future land uses through the screening process for all portions of the installation, except the no proposed use (NPU) areas (Figure 3-14 in Section 3.0, "Alternatives"). Although no uses have been proposed in these areas, there would be secondary and cumulative effects of reuse in the NPU areas.

Reuse in the NPU areas could include any of the uses described for the reuse alternatives and subalternatives described in Section 3.0. The following analysis of reuse impacts in the NPU areas is based on the range of reasonably foreseeable actions of others. It is reasonably foreseeable that:

- newer residential developments would remain in residential use;
- existing developed areas in the cantonment area would be reused with similar or more intensive uses;
- other undeveloped areas would require infrastructure and other services to accommodate future land uses; and
- existing vegetation in existing residential areas would not be disturbed, unless a different land use (e.g., commercial) is being considered, which could cause some disturbance.

For the purposes of this general analysis, the following range of land uses is assumed for the eight NPU areas in Alternative 6R. The numbers below correspond with the NPU areas in Figure 6.17-1.

1. Remains residential
2. Range of uses, from commercial to light industrial
3. Remains residential
4. Range of uses, from residential to commercial
5. Mixed use–residential/commercial/light industrial
6. Range of uses, from residential to commercial
7. Mixed use--residential/commercial/light industrial
8. Open space use similar to RV park/campground

6.17.2 Land Use

The buildout of the NPU areas would result in an increase in land use impacts, including incompatibilities between land uses and inconsistencies with relevant plans and policies. The buildout of the existing residential NPU areas would result in potential incompatibilities with the proposed McKinney Act housing facilities that are located throughout these areas. The potential increase in trespassing from the residential areas onto the university research area just south of Imjin Road may also be considered a land use incompatibility between these two uses. Other areas of potential land use incompatibility are those uses proposed for the NPU areas just north of the proposed NRMA area. Various activities in the NRMA may be incompatible with residential, commercial, or industrial uses in this NPU area, as would fire training activities be incompatible with the NPU area that would likely be reused as a campground-type facility. Proposed uses in the NPU area adjacent to SR 1 north of the proposed POM Annex may also be incompatible with the coastal zone and several McKinney Act areas within this area.

In addition to the potential land use incompatibilities discussed above, the buildout of these NPU areas would also result in policy inconsistencies that would include the protection of sensitive environmental habitat and resources; the expansion of development into areas without adequate infrastructure; and the expansion of development into areas not designated for growth and development or outside of established urban service areas. These impacts would relate to any development of NPU areas that currently are not developed. Other policy and plan inconsistencies would involve land use incompatibilities (discussed above); groundwater resources (the amount of additional development that potentially could occur in the NPU areas that would add to the increased water demand described in the detailed analysis of the Alternative 6R); and infill and underdeveloped land.

The buildout of the NPU areas would potentially result in land use incompatibility impacts and policy consistency impacts greater than those identified in the detailed Alternative 6R analysis.

6.17.3 Socioeconomics

Areas designated as NPU in Alternative 6R are designated as such because those properties will be put on the private market and developed in an unknown fashion. The following discussion assumes the eight areas outlined in Figure 6.17.1 will be developed or will allow existing uses on the property to remain and be reused.

Area 1 is assumed to remain a residential area and currently supports Patton Park, Preston Park, and Abrams Park which include a total of 2,107 family housing units. All these units are in the City of Marina. Area 2 is assumed to support commercial and light industrial uses at buildout and would support over 2,000 jobs. Area 3 is assumed to remain a residential area and currently supports Thorson Village, Brostrom Park, and Hayes Park, which include a total of 1,191 family housing units. All these units are in the City of Seaside. Area 4 is assumed to remain partially a residential area and also support commercial uses. Area 4 currently supports Stilwell Park, which includes 1,009 housing units. Commercial uses could support approximately 240 employees. Area 5 is assumed to remain partially a residential area and also support light industrial and commercial uses. Area 5 currently supports Marshall Park, which includes 353 family housing units in the City of Seaside. Commercial and light industrial uses could generate approximately 11,000 jobs. Area 6 is assumed to be reused by commercial and light industrial land uses that could generate over 500 jobs in unincorporated Monterey County. Area 7 is assumed to be reused by residential, commercial, and light industrial uses. Assuming seven units per acre, the area would likely generate 40 housing units and approximately 110 jobs. Area 8 is assumed to be used as an open space/ campground area and could generate up to 30 employees.

Combined, Areas 1 through 8 would result in the reuse or construction of 4,702 housing units, of which 2,107 would be located in the City of Marina, 2,553 in the City of Seaside, and approximately 40 in unincorporated Monterey County. Assuming a population per household of three, these housing units could accommodate an increase in population of over 14,000 people. Marina's population could increase by over 6,300, Seaside's by 7,600, and the unincorporated county's by over 120. These housing units would, by themselves, help to alleviate the county's and the Monterey Peninsula's existing housing shortage.

Allowing for full buildout of the light industrial and commercial uses in Areas 1 through 8 could generate approximately 14,000 employees, of which over 2,000 would be located in the City of Marina, over 11,000 in the City of Seaside, and approximately 600 in unincorporated Monterey County. In addition, this employment would generate approximately $367 million in personal income within the county.

Although an increase in employment and personal income is generally considered beneficial, the severe housing shortage currently being experienced by the county would be aggravated by the increased demand generated by employment growth. Assuming the county average of employees per household of

1.45, new employees would demand approximately 9,500 housing units; the reuse of existing housing units in the NPU areas would satisfy less than 5,000 units of that demand.

The buildout of the NPU areas would result in a substantial increase of population on the installation, as well as an increase in employment opportunities in the Monterey area. These increases would result in numerous additional households generating additional students. The buildout of the NPU areas would create a demand for school capacity in the Monterey area. This demand would result in the need for additional school facilities and staffing, resulting in construction-related impacts, growth-inducing impacts, and economic impacts on the various school districts that would be required to expand to accommodate the increased demand. The buildout of the NPU areas would result in an increase in students over that indicated in the detailed analysis of Alternative 6R.

The buildout of the NPU areas would result in an increased population on the installation. The increased population would require an increase in available developed park acreage and developed recreational opportunities. However, the developed recreational opportunities proposed in Alternative 6R should be sufficient to meet or exceed the park acreage standards of the area even with the buildout of the NPU areas. The buildout of the NPU areas should not result in any additional recreation impacts other than those identified for Alternative 6R.

6.17.4 Soils, Geography, Topography, and Seismicity

Because NPU areas 1-4 are already developed, potential reuse effects would be limited to extension of the area of possible increase in wind erosion as a result of vegetation removal and soil surface disturbance, engineering limitation due to the excavation caving and embankment piping potential of the soil, and susceptibility of existing and new structures to damage from ground shaking.

Potential reuse development of NPU areas 5-7 would have substantial secondary and cumulative effects on the loss of the soil substrate as an integral component of the ecosystem supporting natural habitats and rare plant communities. Other potential development effects include those described above for NPU areas 1-4. Portions of NPU area 5 underlain by the Aromas formation may be subject to increased hazard of water erosion. The potential reuse of NPU area 8 as a RV park/campground would have no substantial effect.

6.17.5 Public Services and Utilities

6.17.5.1 Wastewater and Solid Waste

The buildout of the NPU areas would result in an increase in the amount of wastewater and solid waste generated on the installation. Buildout would result in a need for greater wastewater treatment capacity than is currently available in the region, most likely requiring a new treatment plant(s) in order to adequately provide treatment to the additional wastewater. Buildout would also result in the need for additional landfill capacity at the MRWMD's Marina Landfill, reducing the life expectancy of the landfill by approximately 25 years, potentially requiring an additional landfill in the Monterey region sooner than regional waste management projections had indicated. Buildout would require modification and expansion of the existing wastewater and solid waste infrastructure, potentially resulting in construction impacts, growth-inducing impacts, additional discharge from the wastewater facility, and various land use impacts relating to locating a new landfill in the region. The impacts related to the buildout of the NPU would result in an increase in the impacts identified in the detailed analysis of Alternative 6R.

6.17.5.2 Telephone, Gas, Electric, and Cable Television Service

Th'e buildout of the NPU areas would result in increases in the demand for telephone, gas, electric, and cable television service. Many of the residential NPU areas are provided services by existing purveyors, so no additional infrastructure would be necessary for these services (however, some of the existing infrastructure may require upgrades to effectively continue to provide service to these areas). Those NPU areas that currently have no infrastructure for these services would require that the system(s) be extended. Those areas that are within the Army's existing service area would have to await the Army's plans for their system(s). If the Army decides to dispose of its system(s), these areas would require that the non-Army purveyor extend its system(s) into these areas. If the Army decides to retain and upgrade its system(s), these areas would retain the Army's service. The buildout of the NPU areas may require the Army to either dispose of or retain its system(s) and may require non-Army purveyors to expand theirs. Expanding these systems would result in various construction-related impacts. The buildout of the NPU may lessen the impacts related to the deterioration of the existing systems as a result of a decrease in demand because these systems would be used and maintained.

6.17.5.3 Storm Drainage and Water Supply Infrastructure

The buildout of the NPU areas would result in increases in the demand for storm drain and water supply infrastructure. Many of the NPU areas have some level of development and may not need additional infrastructure necessary to provide for these services. However, depending on condition or capacity, some of the existing infrastructure may require upgrades to effectively continue to provide service to these areas. Those NPU areas that currently have no infrastructure for these services may require that the existing system be extended. Expansion of these systems would result in various construction-related impacts. The expansion of the storm drain infrastructure would also result in an increased amount of urban and industrial runoff from the additional uses. Additional runoff will have impacts on water quality of the Monterey Bay and the Salinas River and will contribute to increased erosion activity. The buildout of the NPU areas would create a need for additional water supply. The buildout of the NPU areas may lessen the impacts related to the deterioration of the existing systems as a result of a decrease in demand because these systems would be used and maintained.

6.17.6 Water Resources

The buildout of the NPU areas would result in an increase in surface runoff and associated urban runoff pollutant constituents. The NPU buildout will also cause an increase in demand for storm drain infrastructure. The expansion of storm drain infrastructure and additional runoff could cause increases in water quality degradation in the drainages within the installation, Monterey Bay, and the Salinas River. Additional runoff from NPU areas may also cause increased erosion potential, both during and after construction. The impacts related to the buildout of the NPU would result in an increase in the impacts identified in the detailed analysis of Alternative 6R.

About 98% of the 3,456 acres categorized as NPU for Alternative 6R would be for a combination of residential, commercial, and light industrial uses. The water demand factors for these uses are about 2.01, 2.09, and 1.59 af/yr per acre. Assuming an average water demand of 2 af/yr per acre, the suggested uses of the NPU areas would increase the total water demand for Alternative 6R by about 6,800 af/yr, or 57%.

The new total water demand would be about 18,800 af/yr, which is about three times greater than existing water use on Fort Ord. If the demand were met by local wells, the rate of seawater intrusion would be greatly accelerated. The new total water demand is about the same as the demand for Alternatives 3 and 6, greater than the demand for Alternative 5 and Alternative 6R, and less than the demand for Alternatives 1 and 2.

6.17.7 Public Health and Safety

6.17.7.1 Law Enforcement and Fire Protection

The buildout of the NPU areas would result in an increase of population on the installation. This increase would generate the need for additional law enforcement officers, fire fighters, and associated equipment, resulting in the need for additional staffing and facilities by local fire fighting and law enforcement entities with jurisdiction over portions of the installation. This could result in construction-related impacts as a result of the need for new facilities, growth-inducing impacts, and economic impacts to local entities who would have to increase their staffs and purchase additional equipment to adequately provide these services to these areas. The detailed analysis of Alternative 6R indicated that there would be a decrease in the demand for these services from existing conditions; however, buildout of the NPU areas would result in an increase in the demand for these services.

6.17.7.2 Medical and Emergency Medical Services

The buildout of the NPU areas would result in an increase of population on the installation. This increase would generate the need for additional medical and emergency medical services available in the Monterey area. Buildout of these areas would also expose a larger number of people on the installation to the dangers of Lyme disease. The increased demand for medical and emergency medical services would require additional medical facilities in the region. The need for new facilities could result in construction-related impacts and growth-inducing impacts. The detailed analysis of Alternative 6R indicated that there would be a decrease in the demand for these services from existing conditions; however, the buildout of the NPU areas would result in an increase in the demand for these services.

6.17.7.3 Seismic Safety

The buildout of the NPU areas would result in an increase of population on the installation. This increase would result in a far larger number of people exposed to seismic hazards than that identified in the analysis of Alternative 6R.

6.17.8 Traffic and Circulation

The definition of Alternative 6R included 3,456 acres of land designated as NPU. The traffic analysis of Alternative 6R assumed no uses in these areas. Were these areas to be developed as a mixture of residential, commercial, and light industrial uses, the traffic generated by this reuse alternative would increase substantially.

Alternative 6R includes between 5,000 and 6,000 acres of developed uses (depending on how some uses, such as the RV park, are characterized). The addition of over 3,000 additional acres of intense development would substantially increase the number of trips generated by this alternative, and many more lanes of roadway would be required to satisfy this demand.

Because Alternative 6R included very few housing units and many work sites, it had a poor jobs/housing balance, which could result in long commute trips from outside Fort Ord. If the ratio of housing to industrial and commercial uses in the NPU areas were high enough, then the jobs/housing imbalance of Alternative 6R would be improved, which could result in shorter trip lengths.

6.17.9 Air Quality

The mixture of residential, commercial, light industrial, and recreational uses being considered for the NPU areas would generate a mixture of air quality impacts from construction, vehicle traffic, and

stationary or area sources associated with the land uses. The air quality impacts of disposal and reuse of Alternative 6R would be increased somewhat with development of the NPU areas. Inclusion of the NPU areas might cause population levels associated with Alternative 6R to exceed the population forecast used for the 1991 AQMP, thus making Alternative 6R inconsistent with that plan. Mitigation measures similar to those discussed for disposal and reuse under Alternative 6R without development of the NPU areas would be appropriate.

6.17.10 Noise

The mixture of residential, commercial, light industrial, and recreational uses being considered for the NPU areas would generate noise impacts from construction, vehicle traffic, and equipment sources associated with the land uses. The noise impacts of disposal and reuse of Alternative 6R would be increased somewhat with development of the NPU areas. The major added sources of noise would be associated with additional construction activities and added vehicle traffic. Land use details are insufficient to determine whether light industrial uses would contribute significant additional noise sources. Noise-related land use conflicts are a possibility if light industrial uses are developed adjacent to residential areas. Mitigation measures similar to those discussed for disposal and reuse under Alternative 6R without development of the NPU areas would be appropriate.

6.17.11 Hazardous and Toxic Waste Site Remediation

The effects from reuse of the NPU areas on hazardous and toxic waste site remediation are similar to the impacts identified in the Alternative 6R analysis.

Reusing the NPU areas would likely require demolishing more buildings than under Alternative 6R; thus, the potential for generating hazardous waste during building demolition could increase relative to Alternative 6R. Approximately eight hazardous waste investigation sites are located within the NPU areas; developing these areas would increase the amount of remediation required and would pose a slightly higher risk to human health and safety from development on unidentified hazardous waste or unexploded ordnance than under Alternative 6R.

6.17.12 Vegetation, Wildlife, and Wetland Resources

Lands designated NPU are considered in the analysis of Alternative 6R as open space and, therefore, not adversely affected by implementation of the alternative. Because no requests were received for these lands during the real estate screening process, they are assumed to remain under Army control in caretaker status until requests from private parties are received and processed. These lands could be completely or partially developed, remain undeveloped, or become protected with conservation easements under the disposal HMP.

Between 5% and 10% of common biological communities at Fort Ord could be removed by buildout of NPU areas. This includes small areas of beaches and blowouts, ice plant mats, and disturbed dunes; and slightly larger areas of oak woodland and savanna and annual grassland. Small areas of habitat which currently occur within residential areas are assumed to be preserved if the proposed use of the NPU area is continued residential and existing structures are utilized.

Between 500 and 750 acres of maritime chaparral habitat would also be removed under the assumed NPU buildout and two vernal pools would be removed in the 20 acre NPU area adjacent to the proposed RV park.

Between 4% and 8% of the occupied habitat of sand gilia and between 8% and 13% of the occupied habitat of Monterey spineflower could be removed during buildout of NPU areas. Under the assumed

buildout between 8% and 13% of the occupied habitat of coast wallflower and between 1% and 4% of the occupied habitat of toro manzanita, Monterey ceanothus, Eastwood's ericameria, and wedge-leaved horkelia would be removed by development. The one known population of Yadon's piperia at Fort Ord occurs in an area proposed for continued residential use utilizing existing structures and is assumed to be preserved. Between 800 and 1,400 acres of habitat occupied by special-status plant species with no federal or state status occurs in NPU areas and could be removed under the assumed development scenario.

No potential or occupied habitat of Smith's blue butterfly or western snowy plover occurs within NPU areas. Two vernal pools considered potential California linderiella and California tiger salamander habitat could be removed during buildout of the 20 acre NPU area adjacent to the RV park. One of these pools is a known California tiger salamander breeding site. Between 10% and 15% of the potential habitat at Fort Ord for black legless lizard and Monterey ornate shrew would also be removed under the proposed NPU buildout. Tricolored blackbird would not be affected. All other federal candidate species and California species of special concern would have habitat losses between 1% and 10%.

Plant preserve 3 and a small part of significant natural areas MNT-040 could also be affected by NPU buildout.

6.17.13 Visual Resources

Areas 1 and 3. Retention of this area as residential land use, with no disturbance of existing vegetation, would have no secondary or cumulative effects on visual resources.

Area 2. Impacts on visual resources in Area 2 resulting from proposed commercial to light industrial land uses would be similar in nature to the impacts described for this area in Alternative 1. High-intensity land uses would introduce numerous built elements differing in form, line, color, and texture from the existing landscape, which is mostly natural in appearance. Views of Fort Ord from SR 1, Monterey Bay, and other important tourist and recreation areas along Monterey Peninsula would be reduced in visual quality by encroaching land uses of potentially high visual impact. The cumulative impact on visual resources resulting from the proposed land uses would be decreased visual quality of the region.

Areas 4 and 6. Impacts on visual resources resulting from the development of areas 4 and 6 as either various densities of residential use (i.e., low, medium, or high) or as commercial use would range from slight to substantial, depending on the extent of vegetation removal, grading, and introduction of built elements associated with the land use. Development of area 4 would be visible from SR 1 and other important tourist and recreation areas along Monterey Peninsula. Cumulative impacts on regional visual quality and reduced intactness and vividness of views from important tourist and recreation areas could result from high-intensity development of this area.

Areas 5 and 7. Development of areas 5 and 7 as mixed use, composed of residential, commercial, and light industrial land uses, will result in varying degrees of visual impacts depending on the relative proportion of low, medium, and high intensities of land use associated with the selected land use mix. Development of areas 5 and 7 would be visible from important primary and secondary travel routes. Reduced visual quality of primary and secondary travel route viewsheds could result from the development of a land use mix with a large proportion of high-intensity land uses.

Area 8. The development of area 8 as open space similar to the RV park/campground land use identified in Alternative 6R would likely have no visual impacts. The land use definition for RV park/campground calls for upgrading campground utilities, with little, if any, ground disturbance. No cumulative impacts on visual resources would likely result from the development of area 8 as open space.

6.17.14 Cultural Resources

Since none of the buildings recommended as potentially eligible for the National Register are located within the NPU areas, the buildout of these areas will have no effect on these resources. The NPU buildout within areas 1, 5, 6, 7, and 8 has the potential to affect any archeological resources that may be located within sensitive areas. Archaeologically sensitive areas include all terraces and benches adjacent to the Salinas River and El Toro Creek, the peripheries of the wet cycle lakes, and lands adjacent to the streams that flow through Pilarcitos and Impossible Canyons. Additionally, the NPU buildout has the potential to affect any Native American traditional cultural properties that may be found at Fort Ord, most especially if these properties are found within the undeveloped portions of areas 1, 5, 6, 7, and 8. The more intensive the proposed development, the more likely that development will impact upon any archeological or Native American traditional cultural properties that may be found within these areas.

6.16.15 Coastal Resources

The definition of Alternative 6R included 3,456 acres of land designated as NPU. The coastal resources analysis of Alternative 6R, although not quantitative, assumed no uses in these areas. None of these areas is located within the coastal zone, so no direct impacts would result. However, if these areas developed as a mixture of residential, commercial, and light industrial uses, indirect impacts would be associated with Coastal Act Sections 30230 and 30231.

Additional construction east of the coastal zone could result in greater ground disturbance, increased urban runoff, and a higher potential for spills of hazardous materials, which could damage the biological productivity of Monterey Bay. Also, the potential increased withdrawal of groundwater to supply new development east of the coastal zone could degrade local groundwater aquifers unless local water supply projects are completed. This impact and the recommended mitigation measures are discussed in more detail in Section 6.14.2, "Disposal Impacts".

6.17.16 Monterey Bay National Marine Sanctuary

The buildout of the NPU areas would result in an increase in the wastewater generated by uses on the installation, as well as a substantial amount of additional urban and industrial runoff from these areas. This additional runoff will have impacts on the water quality of the Monterey Bay and the Salinas River and will contribute to increased erosion activity. If a new wastewater treatment plant(s) were to be built because of the additional demand for treatment capacity, the resulting discharge from the facility (or facilities) would be substantially greater than existing conditions or those identified for Alternative 6R. The increased urban and industrial runoff from activities and uses in these NPU areas would also result in greater water quality and erosion impacts to the sanctuary and the Salinas River. The impacts related to the buildout of the NPU areas would result in an increase in the significance of those impacts identified in the detailed analysis of Alternative 6R.