Chapter 5

Other Required CEQA and NEPA Analyses

5.1 Introduction

CEQA and NEPA both require an EIS/EIR to evaluate a number of other types of environmental impacts. The analysis required under CEQA and NEPA is in many cases similar; therefore, the CEQA and NEPA required analyses in this section are grouped as appropriate.

5.2 Cumulative Impacts

5.2.1 Approach to Cumulative Impacts Analysis

The CEQs NEPA regulations (40 CFR 1580.25) and State CEQA Guidelines (Section 15130) require a reasonable analysis of the significant cumulative impacts of a proposed project. *Cumulative impacts* refers to "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is:

> the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines, Section 15355[b]). The cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines Section 15130[b]).

There are two approaches to identifying cumulative projects and the associated impacts. The *list* approach identifies individual projects in order to identify potential cumulative impacts. The *projection* approach uses a summary of projections in an adopted general plan or related planning document to identify potential cumulative impacts. The EIS/EIR uses the list approach to cumulative analysis. Cumulative effects of development within the County as a whole and within each of the local land use agencies, which is a covered activity under the proposed HCP/NCCP, has been addressed in the EIRs for each of the general plans and is not addressed in this analysis.

The proposed HCP/NCCP considers cumulative conditions in its assessment of potential impacts to covered species and in the development of an appropriate conservation strategy. As a regional plan, the proposed HCP/NCCP considers cumulative impacts to covered species from buildout and development in accordance with the general plans of each local land use agency. The proposed HCP/NCCP also includes several specific projects that may, in combination with the HCP/NCCP, result in cumulative impacts to covered species. These include development within the City of Antioch, expansion of the Los Vaqueros Reservoir, rural residential development, ongoing agricultural practices, and expansion, operation, and maintenance of wind turbines in the Altamont hills. The EIS/EIR incorporates this analysis into the evaluation of potential cumulative impacts to biological resources.

In determining past, present, and reasonably foreseeable actions that have the potential, in combination with the effects of the proposed HCP/NCCP, to result in cumulative impacts, the EIS/EIR focuses on two types of projects: projects that would be likely to result impacts that are similar in kind or in location to those of the proposed HCP/NCCP, and projects that would occur within or adjacent to the HCP/NCCP inventory area but would be conducted or approved by a land use agency that is not party to the proposed HCP/NCCP. Cumulative projects in the region that were identified are described below.

CALFED

The CALFED program, under the California Bay-Delta Authority, is a cooperative effort of more than 20 state and federal agencies that works with local communities to develop and implement a long-term comprehensive plan to restore ecological health and improve water management for beneficial uses of the Bay-Delta System. In the Bay Area, the CALFED program is undertaking a number of initiatives, including implementing a Bay Area water quality and water supply reliability program, funding water recycling, expanding water conservation efforts, improving water treatment, and funding habitat restoration and watershed management activities.

The MSCS of the CALFED Bay-Delta Program is intended to enable CALFED-implementing entities to obtain the necessary authorizations for specific CALFED actions that could contribute to take of federally or state-listed species. The MSCS includes conservation measures to achieve specific goals for 244 evaluated species and 20 NCCP communities (CALFED 2000). Conservation goals of “recovery,” “contribute to recovery,” or “maintain” are recommended for each of the evaluated species.

The giant garter snake and Swainson’s hawk, which are proposed for coverage under the proposed HCP/NCCP, are included in the CALFED MSCS with a “contribute to recovery” objective. The MSCS provides goals and prescriptions for a number of vegetation communities that are covered under the proposed HCP/NCCP, including grassland, cropland, scrub, riparian, foothill woodland, and seasonal wetlands.

Anticipated Environmental Impacts of the Project or Action. A programmatic EIS/EIR for the CALFED Program was completed in July 2000. Because of the diversity of actions undertaken by the CALFED program, there is a wide range of anticipated environmental impacts, including a range of beneficial impacts from program activities. Impacts of the CALFED program that are most relevant to the proposed HCP/NCCP and anticipated impacts include beneficial impacts to target species and vegetation communities.

San Joaquin Multi-Species Habitat Conservation and Open Space Plan

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) (San Joaquin Council of Governments 2004) is a regional conservation plan that encompasses all of San Joaquin County, except for federally owned lands (approximately 900,000 acres). The SJMSCP is a 50-year plan that covers 97 special-status plant, fish, and wildlife species in 52 vegetative communities. Several of the species covered under the SJMSCP are also covered species under the proposed HCP/NCCP, including the San Joaquin kit fox, Swainson's hawk, tricolored blackbird, Western burrowing owl, giant garter snake, California red-legged frog, Foothill yellow-legged frog, Vernal pool fairy shrimp, Vernal pool tadpole shrimp, and Longhorn fairy shrimp (San Joaquin Council of Governments 2004).

Anticipated Environmental Impacts of the Project or Action. An EIS/EIR for the SJMSCP was completed in December 2000. A wide range of impacts from implementation of the plan and issuance of the Section 10(b)(1)(B) permit were identified. Of particular relevance to the proposed HCP/NCCP are the expected beneficial impacts to covered species. The SJMSCP would also provide for conservation of agricultural land through purchase of conservation easements.

The SJMSCP EIS/EIR does not identify that its implementation would result in significant land use, population or housing impacts. Thus, implementation of both plans in adjacent counties is highly unlikely to result in significant cumulative impacts on land use, population or housing. It should be noted that the housing centers in San Joaquin (Stockton, Tracy, etc.) are separate from those in eastern Contra Costa County and thus combined effects of the two plans are not likely to affect contiguous housing areas.

Urban Development in City of Antioch

The City of Antioch is located within the proposed HCP/NCCP inventory area but is not a participant in the HCP/NCCP. Under its current general plan, the City of Antioch would expand urban development through a combination of infill and building up to its southern city limit. Development within the City of Antioch would consist of a wide range of public and private projects and

activities, similar to those in other incorporated cities that are covered under the proposed HCP/NCCP.

The Antioch General Plan also anticipates future development in several areas that are outside the current ULL. These include the Roddy Ranch and Ginochio properties. The Roddy Ranch area encompasses more than 2,100 acres and would be developed as a master planned development consisting of single family residential (1,500 units), multifamily residential (200 units), and commercial (425,000 square feet). The Ginochio property encompasses approximately 1,070 acres and would be developed as a master planned development of single family residential (1,215 units), multifamily residential (135 units), and commercial (175,000 square feet).

Anticipated Environmental Impacts of the Project or Action. Urban development within the City of Antioch would consist of all types of urban development and would result in wide range of environmental impacts that could contribute to cumulative conditions in the region.

Los Vaqueros Reservoir Expansion

CCWD owns and operates the existing Los Vaqueros Reservoir in Contra Costa County to improve water quality for CCWD customers, provide stored water for emergencies, and improve the Delta habitat. The Los Vaqueros Reservoir Expansion project is being considered to assess the feasibility and environmental benefits and impacts of expanding the existing Los Vaqueros Reservoir from the current capacity of 100,000 acre-feet to a maximum capacity of 500,000 acre-feet. The expansion would provide water storage for improving Bay Area water quality, Bay Area water supply reliability, and Delta environmental restoration.

The U.S. Bureau of Reclamation, the California Department of Water Resources, both CALFED agencies, and CCWD are jointly responsible for managing the CALFED Los Vaqueros Reservoir Expansion Studies. Over the next several years, the CALFED agencies and CCWD are scheduled to complete feasibility studies, environmental review, and conceptual design.

The Los Vaqueros watershed is within the proposed HCP/NCCP inventory area and therefore includes a number of habitats and species that are covered under the HCP/NCCP. The Los Vaqueros watershed also provides essential migration corridors that are considered in the HCP/NCCP conservation planning.

Anticipated Environmental Impacts of the Project or Action. Potential effects of the expansion were initially assessed as part of the Draft Planning Study for the Los Vaqueros Reservoir Expansion (CALFED 2003). Table 5.1-1 illustrates the total potential impact to land cover from the expansion as well as the potential mitigation requirements, in accordance with the CALFED MSCS.

Table 5.1-1. Total Direct Effects on Land Cover and Potential Mitigation for Los Vaqueros Expansion Project

Habitat Type	Total Potential Effect[1]	Total Potential Mitigation Acreage
Grassland	1,313–2,081 acres	1,313–5,828 acres
Oak woodland	133–309 acres	262–1,527 acres
Chaparral /upland scrub	5–11 acres	11–56 acres
Wetland	1.3 acres	1.6–4.5 acres
Riparian	0.01 acre	0–0.03 acre
Urban-Ruderal	3.6 acres	
Agriculture	189 acres	188–381 acres[2]
		178–780 acres[3]
TOTAL	**1,645–2,595 acres**	**1,953–8,576 acres**

[1] Includes temporary and permanent acreage affected.

[2] Agricultural mitigation would be in upland cropland cover.

[3] 10% Contingency.

Source: CALFED 2003.

Mitigation and enhancement of terrestrial biological resources for the Los Vaqueros Reservoir expansion would involve a combination of increased and expanded efforts on the existing watershed lands, restoration and enhancement efforts on lands owned by other potential partner agencies or regional open space managers, and acquisition of additional land for protection, restoration, and/or enhancement (CALFED 2003).

The Draft Planning Study also identified impacts to cultural resources from inundation, impacts to recreational resources from inundation but with potential for expanded recreational opportunities in the long term, and beneficial impacts to water quality in the Delta and to Delta species.

Ongoing or Expanded Agricultural Practices

Agriculture is expected to continue to be a dominant land use in unincorporated portions of the proposed HCP/NCCP inventory area. Current agriculture in the region ranges from grazing to cultivated row crops and orchards. Agricultural activities to support these operations include routine vehicle use; ground preparation and discing; application of pesticides, herbicides, fertilizers, and other chemicals; construction of agricultural infrastructure; irrigation and drainage modifications; and others.

Expansion of agriculture in eastern Contra Costa County is unlikely since substantial amounts of agricultural lands continue to be converted to urban uses

in the County (Department of Conservation 2004). Shifts in agriculture practices toward more high-value crops (such as vineyards) are likely to continue in the future, which may alter the land-cover characteristics.

Anticipated Environmental Impacts of the Project or Action. Routine agricultural activities have a wide range of potential environmental effects. In general, water, air, and biological resources would be the resources most affected by agriculture. Continued agricultural activities would not be expected to result in any substantial new impact to these resources. The County has continued to see a trend toward conversion of agricultural lands out of agriculture. As such, it is unlikely that agriculture in the County will substantially expand in the future. Agriculture in the region has continued to move toward more high-value crops (i.e., vineyards). Such shifts in crop type or other agricultural practices may result in changes in cumulative impacts, such as decreased habitat value, decreased sedimentation and dust from decreased soil preparation, and changes in labor demands.

Ongoing and Future Mineral Extraction

Mineral extraction currently occurs at a number of quarry sites in the area, including those near Byron (Sector GG sandstone area), the Mount Zion site near Concord (Sector T Diabase site), and the clay quarry near Port Costa. As regional development continues and the demand for aggregate for construction increases, there is likely to be an increase in quarrying in areas with economically extractable resources. New and expanded quarrying would be expected to occur in known mineral resource areas.

Anticipated Environmental Impacts of the Project or Action. Mineral extraction in either the Sector GG or Sector T mineral resource area would result in location-specific impacts from ground disturbance. More significantly from the perspective of the proposed HCP/NCCP, quarry operations would also increase indirect effects on the surrounding area, including increased traffic by haul trucks and increased noise. The Sector T mineral resource area is at the periphery of the proposed HCP/NCCP inventory area but the Sector GG resource area is within HCP/NCCP acquisition Zone 6, and in an area that provides a key migration corridor for the San Joaquin kit fox.

Wind Turbine Operation and Expansion

The Altamont Pass Wind Resources Area, located in eastern Alameda and the Byron Hills area of Contra Costa County, covers approximately 50,000 acres and contains approximately 5,000 windmills (approximately 1,000 are within Contra Costa County). Construction and operation of wind turbines in the area has experienced dramatic fluctuations since it was first developed as a result of the creation or elimination of renewable energy tax incentives, energy costs, and overall economic conditions. Expansion of wind turbines, or replacement of

existing turbines with newer, more efficient turbines, is likely to continue on a limited scale in the future.

Anticipated Environmental Impacts of the Project or Action. Operation of wind turbines can result in a large number of avian deaths (especially raptors) annually. Measures to limit raptors in the area include removal of prey species, which may conflict with the broader habitat conservation objectives of the proposed HCP/NCCP. Acquisition of land supporting wind turbines by the Implementing Entity could occur during HCP/NCCP implementation. Where such land acquisition includes the assumption of wind power leases the Implementing Entity is encouraged under the HCP/NCCP to terminate such leases if the result would be of benefit to covered species.

Concord Naval Weapons Station, Inland Area

Seal Beach Naval Weapons Station, Detachment Concord (Detachment Concord), is a 12,800-acre site located on the western boundary of the inventory area, south of the City of Pittsburg most commonly referred to as the Concord Naval Weapons Station (CNWS). Detachment Concord is comprised of two geographically separate units, the Inland (5,170 acres) and Tidal (7,630 acres) Areas. The facility was an ammunition storage and shipment port for the Department of Navy but is currently in a reduced-operating status. A large portion of the base has been designated as a wildlife preserve for a wide range of resident species, including tule elk, golden eagles, and California quail. California tiger salamander is known to occur at the installation. In addition, much of the acreage has been leased to local farmers for cattle grazing (Global Security 2004).

In May 2005, the U.S. Department of Defense named the Inland Area of Detachment Concord as a facility proposed to be closed as part of the 2005 Base Realignment and Closure (BRAC) process. In September 2005, the Department determined that the inland unit would be closed except for facilities needed to support port operations at the north unit. The north unit (also known as the tidal unit) will continue to operate but will be transferred to the Department of the Army (Department of Defense 2005). The City of Concord is the designated Local Reuse Authority (LRA) and began formal reuse planning in spring 2006. Large-scale residential and commercial development may be proposed through the reuse planning and/or large-scale open space and recreational use. . The Inland Area will ultimately be transferred. However, it is too soon to know what the nature of development and/or preservation will be ultimately adopted through the reuse planning process, which has just begun. Thus while some development is likely, the character and extent of development is speculative at this time and thus cannot be considered in any depth in this cumulative analysis.

Anticipated Environmental Impacts of the Project or Action. Future changes in land status at the CNWS/Inland Area cannot be accurately predicted at present. A number of proposals for reuse of the site have been proposed in the early stages of the reuse planning process residential development, commercial

development, university or performing arts facility use, a regional sports complex, and/or large-scale open space and recreational use. Given the slopes extant on the eastern portion of CNWS/Inland Area, it is likely that extensive development will not ultimately be implemented along the eastern boundary (which is the western boundary of this HCP/NCCP). The extent of open space land conserved adjacent to the eastern boundary of the CNWS is unknown at this time.

5.2.2 Cumulative Impacts by Resource

Biological Resources

As a regional HCP/NCCP, the proposed Plan must provide assurance that species and habitat will be conserved and recovered. The proposed HCP/NCCP therefore evaluates impacts to covered species not only in terms of the impact of covered activities, including build-out of the cities of Brentwood, Clayton, Oakley, and Pittsburg, but also in terms of cumulative impact of other actions in the inventory area, including build-out of the City of Antioch (see HCP/NCCP *Chapter 4, Impact Assessment and Levels of Take)*. The cumulative impacts to covered species and habitats are inherently mitigated by the conservation program of the proposed HCP/NCCP and therefore would not contribute to a cumulative significant impact.

The proposed HCP/NCCP may contribute to a cumulatively significant impact to non-covered special-status species. Build-out of the cities of Brentwood, Clayton, Oakley, Pittsburg, and Antioch, as well as other development actions in the East County, may result in impacts to non-covered special-status species that would be cumulatively significant. The proposed HCP/NCCP may contribute slightly to this cumulative impact due to loss of non-covered species during preserve management. However, implementation of mitigation measures would reduce this impact to a less-than-significant level such that the effect of the overall conservation program, combined with other conservation projects in the region, including the SJMSCP and CALFED Bay-Delta Program, would be a beneficial cumulative impact to non-covered special-status species.

Land Use

Establishment of preserves under the proposed HCP/NCCP or alternatives in areas designated for agriculture or open space would not conflict with any existing or planned land uses, and would not contribute to a cumulative impact. Additional measures in the proposed HCP/NCCP would reduce potential land use incompatibilities, such as providing limited take coverage for adjacent land owners, and establishment of measures to buffer the interface between urban and wildland areas. Overall, implementation of the proposed HCP/NCCP would encourage compatible land use development patterns by ensuring that urban development is consistent with local general planning guidance, and that

conservation occurs in a comprehensive coordinated manner consistent with existing and planned land uses.

Long-term regional growth may result in annexation of unincorporated lands. The proposed HCP/NCCP includes a flexible permit area and expanded preserve acquisition to accommodate a reasonable amount of growth. Land annexation and development may be proposed in areas where the proposed HCP/NCCP has acquired or seeks to acquire lands for preservation. The extent and location of future conservation and development conflicts cannot be accurately predicted, although unincorporated areas where city general plans currently provide conceptual planning guidance are the most probable locations. Most areas where preserve acquisition and potential annexation would coincide are of a lower priority for land acquisition. Future development would be required to consider potential impacts to conserved lands and to the overall proposed HCP/NCCP, and to mitigate for any impacts as part of the annexation and development. As a result, at such time as specific future land use changes are proposed, any potential cumulative land use impacts would be expected to be mitigated to a less-than-significant level through project modifications and/or implementation of project-specific mitigation measures.

The proposed HCP/NCCP or alternatives do not propose any conservation activities in the area surrounding Los Vaqueros (this area is currently conserved by CCWD as public watershed). The proposed HCP/NCCP, in combination with the San Joaquin Multi-Species Habitat Conservation and Open Space Plan, conservation in Alameda County, CALFED, and any conservation as part of Los Vaqueros expansion, could contribute to cumulatively beneficial impacts to land use by encouraging continuous agriculture or open space areas.

Agricultural Resources

Overall agricultural lands are likely to continue to decline in East Contra Costa County due to cumulative loss of productive lands from expansion of urban development, as well as fragmentation and conversion of agricultural lands from a scattered rural development. Because the proposed HCP/NCCP does not identify specific parcels for acquisition, it is not feasible to assess the extent to which land acquisition under the proposed HCP/NCCP would contribute to a cumulative impact to agricultural resources. The proposed HCP/NCCP would benefit conservation of Prime and Statewide Farmland through acquisition of conservation easements that ensure continued agricultural use of these lands. The proposed HCP/NCCP would remove some non-prime land from grazing or other agricultural use and contribute to the cumulative loss of agricultural lands from production. This loss would be offset by the use of grazing under the proposed HCP/NCCP as a vegetation management tool. Use of grazing in preserve areas would ensure that agriculturally productive lands would continue in agricultural use, and conversion to non-agricultural or non-open space uses would be precluded. The proposed HCP/NCCP would not result in any significant impacts to agricultural resources and would not contribute to any substantial cumulative effect.

Public Services

Establishment of preserves would have a less-than-significant impact on police and fire services. The proposed HCP/NCCP or other conservation alternatives, combined with other conservation planning, would maintain large areas in open space, which is a land use that does not place a high demand on public services. Maintenance of open space would limit dispersed development in the rural parts of East Contra Costa County (i.e., rural ranchettes) that would place higher demands on public services.

Hydrology and Water Quality

The proposed HCP/NCCP has the potential to impact water quality from erosion/sedimentation and fuel spills associated with heavy construction. Mitigation Measure WTR-1 requires the compliance with the Contra Costa County Clean Water Program NPDES Permit for development activities of more than 1 acre. Measures enforced by state NPDES Permits establish a consistent program for mitigation of stormwater impacts and is designed to minimize cumulative, nonpoint source impacts from development activities.

Further, the proposed HCP/NCCP contains conservation measures that provide for additional water quality protection by establishing vegetative buffers surrounding streams, wetlands, and uplands. The rationale for these buffers is to improve and restore channel morphology, water quality, vegetative habitat, and wildlife habitat in the long-term. Compliance with statewide standards for nonpoint source pollution reduction and establishing stream buffers will benefit water quality over time. In addition, implementation of the proposed HCP/NCCP, in combination with other regional conservation efforts, including CALFED and the San Joaquin Multi-Species Habitat Conservation and Open Space Plan, may provide large, regional benefits to water quality. Therefore, implementation of the proposed HCP/NCCP, including the County Clean Water Program, would result in less-than-significant cumulative effects to water resources.

Socioeconomics

Local development decisions are driven by many factors and, although implementation of the proposed HCP/NCCP may affect a number of these, it is unlikely that the proposed HCP/NCCP would result in substantial adverse affects on the area's economy, land values, or tax base, nor would it result in a disproportionate impact on low-income or minority populations. Overall, the proposed HCP/NCCP would facilitate logical and orderly development pursuant to local general plans. Systematic development in accordance with local general plans would enable local jurisdictions to balance economic and social needs in development. Land preservation in the context of orderly growth, and in conjunction with other large-scale planning and conservation efforts, would

allow for economic and social issues to be appropriately balanced with other needs in a manner that would not have substantial adverse impacts.

Geology, Soils, and Seismicity

Habitat restoration or construction conducted under the proposed HCP/NCCP could result in increased erosion of soils. As described above under Hydrology and Water Quality, implementation of Mitigation Measure WTR-1, which requires use of BMPs and compliance with the Contra Costa County Clean Water Program NPDES to control runoff, and implementation of conservation measures to limit erosion, would result in a less-than-significant impact to soils. The proposed HCP/NCCP would not contribute to a substantial cumulative impact to soils and erosion.

The proposed HCP/NCCP would not result the increased exposure of people or structures to geologic or seismic hazards, and would not contribute to a cumulatively significant impact.

Cultural Resources

Establishment and management under the proposed HCP/NCCP could result in the loss of important previously unknown historic and archaeological resources or disturbance of human remains (Impacts CR-1 and CR-2). With implementation of the mitigation measures identified, the impact of the proposed HCP/NCCP would be less than significant. Any cumulative loss of cultural resources from further development activities would be partially offset by the proposed HCP/NCCP and other large-scale conservation efforts that place lands in open space and remove the development potential, thereby avoiding substantial disturbance and loss of archaeological or historic resources.

Transportation

The proposed HCP/NCCP or alternatives would not generate a substantial number of vehicle trips or affect other transportation systems. Large habitat enhancement or restoration activities may result in short-term construction-related vehicle trips, but these would be mitigated through implementation of Mitigation Measure T-1. Neither the proposed HCP/NCCP nor alternatives would contribute to a substantial cumulative impact to traffic.

Establishment of a system of preserves may affect future planned transportation projects. Impacts to planned projects would be mitigated by implementation of Mitigation Measure T-2. The proposed HCP/NCCP or alternatives would promote development that is consistent with the general plans of the local jurisdictions. Supporting planned growth would promote the logical development of supporting infrastructure, including roadways. Future

transportation projects would be required, as part of necessary CEQA and NEPA compliance, to consider potential impacts to conserved and recreational lands.

Noise

The proposed HCP/NCCP would not result in any long-term impacts to ambient noise that would contribute to a cumulatively significant impact. Construction or habitat restoration within the preserves would result in short-term impacts to ambient noise, but these impacts would be mitigated by the implementation of Mitigation Measure N-1. The contribution to ambient noise levels from habitat restoration or limited construction, in combination with other activities in the region, is not expected to result in a significant cumulative impact. Consequently, the proposed HCP/NCCP's contribution to cumulative construction noise impacts is considered less than significant with implementation of identified mitigation measures.

Air Quality

The proposed HCP/NCCP would not create new stationary sources of emissions or new land uses that would generate operational air emissions. Open space land use would not result in a substantial number of motor-vehicle trips that would increase emissions. The project would create temporary emissions from construction (PM10 and NOx) and from prescribed burns within preserves (CO, ROG, PM10, and NO_x). Mitigation measures identified would reduce the projects impact on air quality to a less-than-significant level.

Construction projects that temporarily emit precursors of ozone (i.e., ROG or NOx) are accommodated in the emission inventories of state and federally required air plans and thus cumulative development would not have a significant impact on the attainment and maintenance of ozone AAQS.

Mineral Resources

The proposed HCP/NCCP may result in conservation of lands that are designated as mineral protection zones by the Contra Costa County General Plan. Few lands in these areas are likely to be acquired, because mineral extraction in the surrounding area makes them less suitable for conservation. Nevertheless, Mitigation Measure MIN-1 would reduce the potential impact to less than significant. Mineral resource areas are outside the ULL and not part of any planned development area of an incorporated city; therefore, few non-mineral development pressures apply in these areas. The proposed HCP/NCCP would contribute less-than-significant cumulative impacts to mineral protection areas.

5.3 Significant and Unavoidable Impacts

No significant and unavoidable impacts of the proposed HCP/NCCP have been identified.

5.4 Short-Term Uses of the Environment versus Maintenance and Enhancement of Long-term Productivity (NEPA)

In accordance with NEPA, Section 102 (40 U.S.C. 4332), an EIS must include a discussion of relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity. The proposed HCP/NCCP is fundamentally designed to ensure that the long-term productivity of the environment is ensured, despite the short-term uses of the environment. In the short-term, a wide range of urban development and infrastructure projects would be carried out under the terms and conditions of the proposed HCP/NCCP. Although these activities would result in a loss of habitat and the take of sensitive species, these activities would be undertaken pursuant to the terms of the HCP/NCCP. The proposed HCP/NCCP provides for a comprehensive mechanism to avoid, minimize, and mitigate for impacts to sensitive species and communities from covered activities. The HCP/NCCP includes "get ahead and stay ahead" provisions for preservation of lands to ensure that the long-term conservation and enhancement measures are in place before the short-term impacts of covered activities occur.

5.5 Irreversible and Irretrievable Commitments of Resources (NEPA)/Significant Irreversible Environmental Changes (CEQA)

In accordance with NEPA, Section 102 (40 U.S.C. 4332), an EIS must explain which environmental impacts of the proposed project are irreversible or would result in an irreversible commitment of resources, such as consumption of fossil fuels. CEQA similarly requires an EIR to discuss uses of nonrenewable resources that would occur during the initial phases and the continued operation of a project (CEQA Guidelines sec. 15126.2(c)).

The project would result in a minor irreversible commitment of fossil fuel resources for habitat restoration and enhancement activities, as well as minor irreversible commitment of fossil fuels to perform surveys, manage the administrative functions of the proposed HCP/NCCP, and maintain and operate the preserve system. Preserves would be established under the proposed HCP/NCCP to provide for ecosystem viability and species enhancement;

however, establishment of preserves, whether purchased in-fee or easements, would not be considered an irreversible commitment of resources since this use would not preclude modifications or adjustments in the use in the future.

No specific development activities are authorized under the proposed HCP/NCCP that would result in the irreversible commitment of resources. The conversion of land to urban uses is considered an irreversible environmental commitment due to the extremely remote possibility that such land would be removed from urban use in the future. Conversion of land to urban uses is a covered activity by the proposed HCP/NCCP, but such conversion is not specifically authorized by the HPC/NCCP. The irreversible commitment of lands to urban uses has been evaluated in the general plan EIRs for the local land use jurisdictions.

5.6 Growth Inducement (CEQA)

CEQA requires that an EIR discuss the extent to which a proposed project would directly or indirectly foster economic or population growth, or the construction of new housing, including removing obstacles to growth that may result in significant environmental effects (CEQA Guidelines Sec. 15126.2(d)). The proposed project would not have any direct growth-inducing impacts since no development would be specifically authorized in the planning area under the proposed HCP/NCCP. The proposed HCP/NCCP would not directly cause growth to occur, but rather would accommodate growth that is already planned in the County and city general plans.

Future development that is assessed as part of the proposed HCP/NCCP impact analysis, and is covered under the HCP/NCCP, is derived directly from the general plans of the local land use agencies and from transportation plans adopted by regional transportation authorities. This development is therefore development planned by each of the local land use and transportation authorities. The direct and indirect impacts of this planned growth and any mitigation requirements is provided under the general plan and transportation EIRs for each jurisdiction, as well as under project-specific environmental compliance that would be required for specific developments in the future.

The term of the proposed HCP/NCCP and take permits would extend beyond the planning horizon of the local general plans. Although the proposed Plan includes a flexible permit area to provide coverage for additional growth beyond the terms of the general plans, the proposed Plan does not induce future growth since other factors would be more limiting to this growth than the attainment of take authorization. Adjustment of the voter-approved ULL would require approval by four-fifths of the County Board of Supervisors, consistent with Measure C-1990. Such action would require the Board of Supervisors to make certain specific findings based on substantial evidence in the record, such as the current ULL must be revised to comply with state or federal law, or it is preventing the County from providing its fair share of affordable or regional housing as required by

state law. Measure C-1990 will expire in 2010. However, Measure J-2004 requires the County and other land use planning agencies to adopt a voter-approved ULL extending through 2034 in order to receive local road funds provided by the Measure. Work to assemble a new voter-approved ULL is underway.

Annexation of new areas into cities would be subject to approval by LAFCO, in accordance with the sphere of influence established by LAFCO to balance the competing needs for efficient services, affordable housing, and economic opportunity while ensuring agricultural and open-space lands are protected. LAFCO has policies requiring analysis of proposed annexations to determine consistency with the existing ULL. Likewise, Measure J-2004 also requires cities to have a voter approved ULL through 2034 in order to receive local road funds. The cities are also working to assemble ULL proposals for the voters.

The proposed HCP/NCCP would provide a streamlined mechanism for compliance by specific projects with ESA and CESA. An improved permitting mechanism would not remove a barrier to growth, but would perhaps lower it. Under the proposed HCP/NCCP, permit approval would be easier for development applicants to secure, resulting improved development efficiencies and potential development cost savings. The efficiencies and costs under the proposed HCP/NCCP would affect development differently. Development of lands where there are few species concerns would not be substantially affected by the proposed HCP/NCCP since permitting without the HCP/NCCP would be a minor issue.

Projects with a greater level of species concerns would be most affected by implementation of the proposed HCP/NCCP since these projects would benefit most by streamlined permit approvals. Nevertheless, without the HCP/NCCP, these projects would presumably still be able to proceed under the existing case-by-case permit approval process. Given the current rate of development and growth being experienced in eastern Contra Costa County, the cost of case-by-case permit approval does not appear to be a noticeable disincentive to development. Thus, the proposed HCP/NCCP may influence the speed with which development could proceed, but not the extent of development. The speed of development would be more substantially influenced by larger economic conditions, population growth, housing stocks, as well as local land use and growth-management controls.

5.7 Environmentally Preferable/Superior Alternative

Both CEQA and NEPA require the identification of an environmentally preferable (CEQ NEPA Guidelines, Section 1505.2[b]) or superior (CEQA Guidelines, Section 15126[e][2]) alternative. The environmentally preferable and superior alternative is the alternative that would result in the least damage to the environment. Based on the analysis presented in chapters Chapters 4 and 5,

the environmentally preferable/environmentally superior alternative is Alternative 1, the proposed HCP/NCCP.

The impacts associated with Alternatives 1 and 2 are qualitatively similar. Although impacts associated with land acquisition under Alternative 2 may be slightly reduced compared to Alternative 1, these impacts would remain significant. Alternative 1 would provide for a greater level of conservation particularly in the far eastern portion of the inventory area. Acquisition of these additional lands would provide greater species conservation and improved linkages to preserve lands in San Joaquin and Alameda counties. The overall benefit to species would therefore be greater under Alternative 1 without a measurable difference in impacts to the environment.

5.8 Executive Orders

5.8.1 Executive Order 11988—Floodplain Management

Executive Order 11988, Floodplain Management, requires federal agencies to prepare floodplain assessments for proposed projects located in or affecting floodplains. An agency proposing to conduct an action in a floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the only practicable alternative involves siting in a floodplain, the agency must minimize potential harm to or development in the floodplain and explain why the action is proposed in the floodplain.

The proposed HCP/NCCP would not directly result in any incompatible development within a floodplain. Future development within the incorporated cities, which is covered under the proposed HCP/NCCP, may occur in floodplains along the Bay-Delta. This development is planned development that has been evaluated and mitigation measures have been identified in the County and city general plan EIRs.

5.8.2 Executive Order 11990—Protection of Wetlands

Executive Order 11990, Protection of Wetlands, requires federal agencies to prepare wetland assessments for projects located in or affecting wetlands. Agencies must avoid undertaking new construction in wetlands unless no practicable alternative is available and the proposed action includes all practicable measures to minimize harm to wetlands.

The proposed HCP/NCCP has been designed to address impacts on federal and state jurisdictional waters, including wetlands, and on state jurisdictional streams

and lakes. Specific biological goals and objectives for wetlands and streams have been developed, and the conservation strategy includes a range of specific measures to avoid and mitigate for impacts to these resources. Specific measures included in the proposed HCP/NCCP or alternatives include the following.

- Measures described in Chapter 6 of the HCP/NCCP require that a delineation of jurisdictional waters to be conducted as a condition of approval for all projects covered under the proposed HCP/NCCP.
- Conservation Measure 1.7 requires establishment of buffer zones between streams and development.
- Conservation Measure 2.12 provides measures to avoid and minimize impacts to wetlands, ponds, and streams.
- Conservation Measure 2.2 establishes a program to enhance and manage wetlands and ponds.
- Conservation Measure 2.3 establishes a program to restore and create wetlands and ponds.

These measures, implemented in concert, would provide adequate protection for existing wetlands, as well as restore and create additional wetlands in the inventory area.

5.8.3 Executive Order 12898—Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their actions on minorities and low-income populations and communities. Potential impacts related to environmental justice are discussed in Section 4.7 *Socioeconomics and Environmental Justice.*