Chapter 1
Introduction

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1.1 Overview

The Santa Clara Valley Habitat Plan (or Plan) is intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species. The entities listed below have prepared this Plan.

- County of Santa Clara (County).
- City of San José.
- City of Morgan Hill.
- City of Gilroy.
- Santa Clara Valley Water District (SCVWD).
- Santa Clara Valley Transportation Authority (VTA).

These entities are collectively referred to as the *Local Partners*. The Local Partners intend the Plan to allow for reasonable development, growth, and needed infrastructure construction and maintenance while accommodating the Plan's conservation goals and complying with state and federal regulatory requirements. The Local Partners are collectively known as the *Permittees*.

1.1.1 Mission Statement

The Local Partners and key stakeholders, participating in a goal-setting process, developed a set of broad program goals that collectively serve as the mission statement for this Plan. The program goals are divided into five themes.

Biological Resources and Conservation

- Protect, enhance, and restore ecosystem integrity and functionality for threatened and endangered species.
- Enhance the diversity of plant and animal communities.
- Conserve habitat and contribute to the recovery of species listed or likely to be listed under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA).

Multi-Purpose and Benefit Plan

- Preserve and enhance watersheds to protect beneficial uses of water and to provide flood protection for Santa Clara County.
- Provide appropriate levels of public access in habitat areas in a manner compatible with conservation goals.
- Facilitate economic growth compatible with approved local land use plans.
- Preserve agricultural viability.
- Integrate the strategies of the Plan with public and private potential partners wherever possible.
- Develop a Plan with a variety of implementation measures to attract multiple funding sources.
- Allocate costs of the Plan equitably among the Local Partners.
- Develop Plan strategies that build on the governmental capacities of all Local Partner jurisdictions.

Public Participation

- Provide an open public process in developing and implementing the Plan.

Regulatory Compliance

- Provide a comprehensive, coordinated, and standardized mitigation and compensation plan such that regulations on public and private actions will be applied equally and consistently, reducing delays, expenses, and regulatory duplication.
- Streamline the endangered species permitting process for the covered activities.

Effective and Efficient Implementation

- Provide a basis for the Permittees to obtain endangered species permits for public projects including those associated with uninterrupted water supply, flood protection, watershed activities, recreation, transportation, and other government functions.
- Provide a basis for private projects to gain permit authorization through local agencies.
- Create efficient reserve unit management plans that complement existing monitoring and adaptive management efforts of the Permittees and other land management entities in the study area and the region.

1.1.2 Purpose

The purpose of this Plan is to protect and enhance ecological diversity and function in the greater portion of Santa Clara County, while allowing appropriate and compatible growth and development in accordance with applicable laws. To this end, the Plan describes how to avoid, minimize, and mitigate impacts on endangered and threatened species, thereby addressing the permitting requirements relevant to these species for activities conducted in the Plan area by the Permittees. These activities (i.e., *covered activities*) include urban and rural growth and a variety of road, water, and other needed infrastructure construction and maintenance activities. The Plan also describes the responsibilities associated with operating and maintaining the new habitat reserves that will be created to mitigate anticipated impacts resulting from growth and development activities.

This Plan is both a habitat conservation plan (HCP) intended to fulfill the requirements of the ESA and a natural community conservation plan (NCCP) to fulfill the requirements of the California Natural Community Conservation Planning Act (NCCP Act). As an NCCP, this Plan not only addresses impact mitigation, but will also contribute to the recovery and delisting of listed species and help preclude the need to list additional species in the future. The Local Partners are voluntarily preparing this Plan as an NCCP to provide a higher level of conservation for the benefit of natural resources in Santa Clara County than is strictly required for ESA compliance. An NCCP also provides greater regulatory benefits and greater opportunities for state and federal funding than do other permitting options under state law.

In summary, this Plan will achieve the specific objectives listed below.

- Provide comprehensive species, natural community, landscape, and ecosystem conservation in the study area.
- Contribute to the recovery of endangered species in Santa Clara County and northern California.
- Protect and enhance biological and ecological diversity in the county.

- Establish a regional system of habitat reserves to preserve, enhance, restore, manage, and monitor native species and the habitats and ecosystems upon which they depend.
- Enhance and restore stream and riparian systems outside the habitat reserves to provide additional benefit to native fish and other stream-dwelling species.
- Allow issuance of permits to the Permittees for lawful incidental take[1] of species listed as threatened or endangered pursuant to ESA and CESA.
- Provide a means for the local agencies receiving permits to extend the incidental take authorization to private entities subject to their jurisdiction, bringing endangered species permitting under local control.
- Streamline and simplify the process for future incidental take authorization of currently nonlisted species that may become listed during the permit term.
- Standardize avoidance, minimization, mitigation, and compensation requirements of the ESA, CESA, NCCP Act, California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and other applicable laws and regulations relating to biological and natural resources within the planning area, so that public and private actions will be governed equally and consistently, thus reducing delays, expenses, and regulatory duplication.
- Provide a less costly, more efficient project review process that will result in greater conservation than the current project-by-project, species-by-species endangered species compliance process.

Incidental take authorization (referred to as *take authorization* in this document) will be granted by the U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Game (CDFG) (collectively, the Wildlife Agencies). The Local Partners are asking the Wildlife Agencies to issue permits that authorize incidental take of covered species. The Plan includes a conservation strategy to compensate for impacts on these covered species. The conservation strategy provides for the conservation and management of covered species and their habitats.

It is anticipated that the Plan will allow issuance of incidental take permits under the ESA and the NCCP Act by the Wildlife Agencies to the local jurisdictions. The Permittees will then be able to use those permits for their own operations, maintenance, and capital projects. The Permittees will also be able to extend the take authorization to private entities conducting activities covered by this Plan and under their jurisdiction[2] (see Chapter 2 for a detailed summary of activities eligible for these permits). The Wildlife Agencies will also provide assurances to the Permittees and Plan participants that no further commitments of funds, land,

[1] *Take* as defined by the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Incidental take* is take that is incidental to, and not intended as part of, an otherwise lawful activity.

[2] Note that the HCP and NCCP permits will only authorize the incidental take of covered species. Most activities will also require additional local authorization (e.g., CEQA), and some activities will also require additional state or federal authorization.

or water will be required to address impacts on covered species beyond that described in the Plan as long as the Permittees are adequately implementing the Plan (see Chapter 10).

The Plan will also be used to comply with Section 7 of the ESA for projects with federal agency involvement. See Section 1.3.1 *Federal and State Endangered Species Laws* for more details.

1.1.3 Background

Local Partner agencies in Santa Clara County have until now primarily conducted threatened and endangered species permitting for urban growth, infrastructure development, and operations and maintenance activities with the Wildlife Agencies on a project-by-project basis[3]. In 2001, a USFWS Section 7 biological opinion (U.S. Fish and Wildlife Service 2001) recommended that a regional HCP for all or most of Santa Clara County be developed as a condition for approval of several development and road construction activities; these are listed below.

- U.S. Highway (U.S.) 101 widening (San José to Morgan Hill).
- Bailey Avenue Extension/U.S. 101 interchange.
- U.S. 85/101 South interchange.
- Coyote Valley Research Park.

An HCP was recommended so that local agencies could offset the cumulative and indirect effects of large-scale development and infrastructure projects on federally listed species. Similar recommendations have been made for other northern California counties (e.g., Contra Costa, Solano, Yolo, Sacramento, Yuba, Sutter, and Placer) for their large-scale water and transportation infrastructure projects.

In response to this recommendation, the County, the City of San José, VTA, and SCVWD entered into discussions that led to the signing of a memorandum of understanding (MOU) in June 2004 (City of San José et al. 2004). This MOU stated the signatories' agreement to develop a joint HCP/NCCP and to share in its funding. The MOU also stated that this HCP/NCCP would be a multi-species, multi-habitat plan that would establish a regional reserve system and would address and satisfy immediate and future regulatory compliance needs of the signatories. The regional reserve system would focus on acquisition, preservation, restoration, monitoring, and management of habitat used by the covered species identified in the Plan. Soon after the MOU was signed, these local agencies entered negotiations with CDFG to develop a Planning Agreement, a requirement of the NCCP Act.

[3] An important exception is the SCVWD's Stream Maintenance Program permits, described in Chapter 2, Section 2.3.4.

Two new Local Partners, the Cities of Gilroy and Morgan Hill, joined the process in 2005.

All six Local Partners, USFWS, and CDFG signed a Planning Agreement on October 20, 2005 (County of Santa Clara et al. 2005). The purpose of this Planning Agreement was to lay the groundwork for development of an HCP/NCCP. Specifically, the Planning Agreement:

- Defined the signatories' goals and obligations with respect to development of the Plan.
- Created a preliminary description of the geographic scope, natural communities and species, and conservation objectives for the Plan.
- Ensured coordination between the Local Partners and Wildlife Agencies.
- Established concurrent planning for wetlands.
- Established a process for inclusion of scientific input and public participation.

The Planning Agreement defines the Plan as satisfying the requirements for an HCP under Section 10 of the ESA and an NCCP under the state NCCP Act.

The role of the Local Partners is to manage and fund development of the Plan for submission to the Wildlife Agencies. Pursuant to Section 10(a)(1)(B) of the ESA, once approved, the Plan and associated permit will authorize incidental take of federally listed species within the study area. The approved Plan will also serve as an NCCP and, once approved by CDFG, will enable CDFG to authorize take of covered species under Section 2835 of the California Fish and Game Code.

The Santa Clara Valley Open Space Authority (Open Space Authority) is expected to be a key partner during Plan implementation (see Chapter 8).

1.2 Scope of the Habitat Plan

This section introduces key elements of the Habitat Plan: covered activities, geographic scope, permit term, and covered species.

1.2.1 Covered Activities

A primary goal of this Plan is to protect species and their habitats in order to obtain authorization for incidental take of covered species under the ESA and the NCCP Act for certain types of activities in specific areas of Santa Clara County, in accordance with approved land use plans. *Covered activities* are those projects or ongoing activities that will receive incidental take authorization by the ESA and NCCP permits. Covered activities in the Plan fall into seven general categories.

- Urban development.
- In-stream capital projects.
- In-stream operations and maintenance.
- Rural capital projects outside streams.
- Rural development.
- Rural operation and maintenance of public infrastructure outside streams.
- Conservation strategy implementation (i.e., activities within the lands managed, enhanced, restored, and monitored to conserve the natural resources targeted by this Plan).

For details on the covered activities and the criteria used to select them, see Chapter 2 *Land Use and Covered Activities*.

1.2.2 Geographic Scope

The Local Partners began the planning process by defining a broad area—the *study area*—in which all planning would occur for the Plan.

Study Area

The study area lies within Santa Clara County (**Figures 1-1 and 1-2**)[4]. Santa Clara County has a land area of 835,449 acres; the study area encompasses 519,506 acres, or approximately 62% of the county. The study area was defined as the area in which all covered activities would occur, impacts would be evaluated, and conservation activities would be implemented. The boundary of the study area was based on political, ecological, and hydrologic factors. The study area includes all of the Llagas/Uvas/Pajaro watersheds within Santa Clara County and all of the Coyote Creek watershed except for the Baylands. A large portion of the Guadalupe watershed is also within the study area. The study area also encompasses small areas outside these watersheds, as described below.

The northern edge of the study area is defined by the boundary of Alameda and Santa Clara Counties, excluding the Milpitas City Limits[5] and lands to the north owned by the San Francisco Public Utilities Commission (SFPUC). The SFPUC is preparing an HCP for lands in their Alameda watershed that includes approximately 10,000 acres in Santa Clara County.

[4] As discussed below, California State Parks (State Parks) lands are excluded from the permit area. Because of this exclusion, all of the land cover-related analyses in the Plan are based on the study area less State Parks lands unless otherwise noted. The size of the study area less State Parks lands is 460,205 acres.

[5] For convenience, all of Ed R. Levin County Park is included in the study area, even though a portion of this park is in Milpitas.

Lands in Joseph D. Grant County Park and Mount Madonna County Park outside the Coyote Creek and Llagas/Uvas/Pajaro watersheds are included in the study area, marking the eastern and southwestern boundaries of the study area, respectively. This inclusion allows full coverage of activities in these County parks under the Plan.

Tulare Hill, the Santa Teresa Hills, and the Calero Reservoir area, all within the Guadalupe River watershed, are included in the study area to ensure inclusion of serpentine soils and all occupied and potential habitat for Bay checkerspot butterfly, one of the primary covered species for this Plan.

Almaden Quicksilver County Park is in the study area to ensure inclusion of additional serpentine habitat, which supports a disproportionately high number of covered species, particularly covered plants.

Lands along Los Gatos Creek upstream through Vasona County Park owned by SCVWD and the County of Santa Clara Parks and Recreation Department (County Parks) (County of Santa Clara, Parks and Recreation Department 2003) are included in the study area to allow additional coverage of activities by these agencies.

Almost the entire City of San José lies within the study area. The Baylands and Alviso within San José are not within the study area to exclude current and historic tidally influenced areas. This line was drawn with reference to December 2005 color aerial photographs, historic maps of tidal areas (San Francisco Estuary Institute 2006), and data from the Baylands Ecosystem Goals Project (Goals Project 1999). Within San José, the northern boundary of the study area is the northern edge of the "bufferlands" of the Water Pollution Control Plant facility on Zanker Road.

San José's Baylands were excluded from the study area to avoid covering species restricted to salt marshes and other saline habitats, which would significantly complicate the Plan. Other substantial planning efforts are underway in the Baylands of Santa Clara County (e.g., South Bay Salt Ponds Restoration Project); this area was excluded to avoid duplicating those efforts. In addition, no impacts are expected to occur to the unique Baylands species from covered activities.

Expanded Study Area for Burrowing Owl Conservation

During Plan development, it became necessary to include conservation actions immediately outside of the study area in order to adequately mitigate and contribute to the recovery of western burrowing owl, one of the covered species. As described in Chapter 5 and in the species account (**Appendix D**), the population of western burrowing owl is declining in the study area. Conservation opportunities in the study area to increase the local population are very limited. After extensive discussions with the Wildlife Agencies and species experts, it became clear that the only way to increase the local population was to provide conservation outside the study area.

To address this need, an *expanded study area for burrowing owl conservation* (expanded study area) was identified in the northern edge of the county in portions of the cities of San José, Santa Clara, Mountain View, Milpitas, and Sunnyvale; in Fremont in Alameda County; and a small portion of San Mateo County (**Figure 1-2**). The expanded study area for burrowing owl conservation that falls outside of the primary Habitat Plan study area is 48,464 acres.

The allowable covered activities in this expanded study area are limited only to conservation actions for western burrowing owl. Coverage for these activities is provided only for this species. Projects and activities of the other jurisdictions, which are not Permittees, are not covered.

Permit Area

The *permit area* is the area in which the Permittees are requesting take authorization from USFWS and CDFG for activities and projects covered by this Plan. The permit area constitutes those lands within the study area and expanded study area for burrowing owl conservation on which covered activities occur (see Chapter 2 for a description of covered activities). The permit area is the same as the study area except that it excludes Henry W. Coe State Park (**Figure 1-2**). This park was excluded from the permit area because activities within this park are not covered by the Habitat Plan and because it represents such a large portion of the study area. The small portion of Pacheco State Park within the study area is also excluded from the permit area. The permit area is 508,669 acres (519,506 acres in the study area + 48,464 in the expended study area - 58,642 acres of Henry W. Coe State Park within the study area[6] - 659 acres of Pacheco State Park within the study area).

The permit area also includes small, unmapped areas. Land management and monitoring activities may occur outside the mapped study area where a conservation parcel straddles the mapped permit area as long as more than half of each parcel is contained within the permit area. These unmapped areas will not exceed a total of 250 acres[7].

1.2.3 Permit Term

The permit term is the time period in which all covered activities can receive take authorization under the Plan, consistent with the requirements of the Plan. The permit term is also the time in which all conservation actions must be successfully completed to offset the impacts of the covered activities.

[6] The total size of the park is 85,843 acres, of which 27,201 acres occurs outside the study area in Santa Clara and Stanislaus Counties.

[7] Because of their uncertain location and lack of data, the unmapped areas are not included in the total study area or permit area acreage or any calculations of land cover type.

The Local Partners are seeking permits from the Wildlife Agencies with terms of 50 years. Each Permittee will request a permit from each of the two Wildlife Agencies. If approved, each Local Partner would receive a permit from each agency. These permits will be tied to this Plan and to the Implementing Agreement (**Appendix B**). Each permit will be issued to all Permittees collectively. Prior to permit expiration, the Permittees may apply to renew or amend the Plan and its associated permits and authorizations to extend their terms. The permit term of 50 years was selected because it allows for the full and successful implementation of the covered activities (Chapter 2), the conservation strategy (Chapter 5), the monitoring and adaptive management program (Chapter 7), and the funding strategy (Chapter 9). Each of these components is discussed below.

Time to Implement Covered Activities

A summary of major local planning documents and their respective time horizons is provided in **Table 1-1**. These planning documents have durations between 10 and 50 years, reflecting the time it takes to secure funding and permits and construct the projects identified in the plans. The largest source of covered activities is the urban growth of the three participating cities consistent with their general plans[8] (City of San José 2011; City of Gilroy 2002; City of Morgan Hill 2001) and rural oriented growth in unincorporated Santa Clara County. The Morgan Hill and San José general plans have ultimate build out lines[9] that are assumed to be developed with urban uses by the end of the 50-year permit term and not expand in future General Plan updates. The City of San José General Plan assumes eventual urban development in the Almaden Valley Urban Reserve and Coyote Valley Urban Reserve. Specific plans must first be developed and adopted for each area. The City of Gilroy General Plan addresses growth from 2002 through 2020. If a future Gilroy General Plan update expands the City's urban area, impacts of that expansion to covered species will have to be addressed at that time. Growth in the rural areas of the county is much less constrained geographically than in the cities so it is expected to occur, at a fairly even pace throughout the 50-year permit term, based on trends over the past ten years.

The planning horizon for capital projects is even longer than that of urban development within cities. Timelines for SCVWD's capital projects often extend for decades, so this agency requires a permit term that encompasses the planning horizons of as many of these projects as is feasible. Other covered projects (see Chapter 2) may take several decades to receive the funding needed to implement them (Santa Clara Valley Water District 2000, 2002a, 2002b, 2005a, 2005b). Many public infrastructure projects have a lifespan of 50–100 years. Because much of the public infrastructure in the study area was constructed in the 1940s through the 1960s, local engineers expect most of this infrastructure to need

[8] Any development proposed in future General Plan updates that goes beyond that described in Chapter 2 would not be covered by this Plan; see Chapter 10 for Plan amendment procedures.
[9] Urban Limit Line for Morgan Hill and Greenline for San José.

replacement or major repair in the next 50 years (e.g., all County-maintained bridges are expected to need replacement or major repairs in the next 50 years).

Some covered projects are not expected to be implemented until later in the 50-year permit term. Such projects include the many bridge replacement projects, several flood control and water supply projects, and several road widening projects. A longer permit term is necessary to anticipate and adequately mitigate the impacts of these projects on the covered species.

Ongoing maintenance activities of SCVWD, the County, and participating cities are expected to continue in perpetuity; consequently, take authorization for these activities is needed for as long a period as feasible. As described in Chapter 4, these on-going covered activities are expected to affect the covered species throughout the 50-year permit term. For example, road maintenance performed by the County occurs annually. Maintenance on rural roads is expected to affect habitat for many covered species, including California red-legged frog, California tiger salamander, western burrowing owl, Metcalf canyon jewelflower, most beautiful jewelflower, and Mount Hamilton thistle. Many of these species occur on roadcuts or immediately adjacent to roads in drainages. Similarly, ongoing maintenance by SCVWD covered in this Plan (see Chapter 2) is expected to affect covered species for the duration of the permit term. For example, maintenance of canals has the potential to affect California red-legged frog, western pond turtle, and serpentine plants.

Time to Implement, Monitor, and Adjust Conservation Actions

The length of the permit term also provides adequate time for the assembly of a reserve system and development of a management program on reserve lands. Land will only be acquired from willing sellers. Landowners may not be willing to sell at a reasonable price for many years after the permits are issued. A 50-year permit term provides adequate time for willing landowners to become available and for the land agents of the Plan to negotiate a fair price for the land in fee title or conservation easement (see Chapter 5 for a description of the land acquisition requirements of the Plan and Chapter 8 for a description of the land acquisition process). It may take several years to complete a single land acquisition or purchase a conservation easement. Because 100–200 such transactions will be required to assemble the reserve system, adequate time is needed to ensure this can happen before the end of the permit term. A permit term of 50 years also allows the monitoring and adaptive management programs to become well established so that they will continue in perpetuity successfully. As described in Chapter 7, the monitoring and adaptive management program will go through three distinct phases: data inventory, targeted studies, and long-term monitoring. Each phase will take many years to complete successfully[10].

[10] Many regional HCPs and NCCPs approved in southern California over 10 years ago are still developing their monitoring programs, demonstrating that it takes decades to develop and implement a successful monitoring program on such a large scale.

One type of monitoring, called "status and trend monitoring", will track long-term trajectories of species populations and other physical and biological conditions in the study area. A permit term of 50 years will provide adequate time to collect enough trend data for all of the covered species; if management responses are necessary, the permit term will also allow sufficient time to adjust management. Monitoring the success of restoration actions (described in Chapter 5) is expected to take 5–10 years for each restoration project. Most restoration actions cannot be initiated until land is acquired for the reserve system. A permit term of 50 years is necessary to allow enough time to complete land acquisition with at least 5–10 years remaining on the permit in which to successfully initiate or complete (and possibly remediate if necessary) all restoration actions. The Permittees have committed to acquiring all land for the Plan by Year 45 and initiating all restoration projects by Year 40 (see Chapter 5 for details). Therefore, a 50-year permit term is necessary to complete these actions and to leave sufficient time for monitoring before the permit term ends.

A successful program for management, monitoring, and adaptive management is essential to the success of the reserve system after the permit term. The Permittees will be obligated during the permit term to address changes in circumstances foreseen by the Plan (see Chapter 10) and to remediate the conservation areas affected by these changes. A longer permit term is more likely to encompass a changed circumstance that will require a remedial action.

Time to Secure Adequate Funding

A 50-year permit term allows sufficient time to generate the necessary funding for Plan implementation. As described in Chapter 9, the Plan will be funded by a wide variety of local, state, and federal sources. Some of these sources will not be available for 10–30 years or more. To take advantage of these funding sources, therefore, the permit term must be at least 40 years.

Funding is also needed during the permit term to generate the necessary funds for management and monitoring after the permit expires (e.g., an endowment). In Chapter 9, the Plan describes how this will be accomplished and by when. The permit term must therefore allow sufficient time to accumulate the long-term funding.

Conclusions

Based on the implementation horizon for covered projects, the ongoing regulatory requirement of operation and maintenance activities, the need to acquire lands and develop a successful reserve system, and the need for adequate funding, the Local Partners have determined that a 50-year permit term will best address regulatory and biological considerations. In summary, the 50-year permit term provides sufficient time to accomplish the following critical elements of the Plan.

- Fully implement the current general plans of the cities and the County.

- Fully implement the Permittees' capital projects that are covered by the Plan.
- Implement the Permittees' ongoing activities as long as is feasible.
- Allow sufficient time to assemble the Plan reserve system from willing sellers and partnerships with local agencies and private landowners.
- Secure all necessary funding for Plan implementation during the permit term and secure funds during the permit term to generate funding for the Plan in perpetuity.
- Develop an effective adaptive management program that will be implemented in perpetuity, given the current uncertainties in knowledge about the ecology of covered species and responses to resource management.
- Provide sufficient incentive for the Local Partners to commit the substantial resources necessary to complete the Habitat Plan (i.e., the permit term covers enough projects and activities to make the large up-front investment in the Habitat Plan cost effective).

Take authorization for all covered activities, including covered operations and maintenance activities, will expire at the end of the permit term, unless the permit is renewed or replaced. Near the end of the permit term, the Permittees will determine whether to extend the term of the permit through the formal amendment process described in Chapter 10.

1.2.4 Covered Species

As required by the NCCP Act, this Plan will protect native biological diversity, habitat for native species, natural communities, and local ecosystems. This broad scope will conserve a wide range of natural resources including native species that are common or rare. However, the permits issued by the Wildlife Agencies will name specific species that are either currently listed as threatened or endangered or that may become listed during the permit term.

This Plan addresses 18 listed and nonlisted species (**Table 1-2**): nine wildlife species and nine plant species. These covered species are expected to be named on the ESA and NCCP Act permits. In exchange, the Plan will provide long-term conservation and management of these species. The 18 covered species were identified on the basis of an initial assessment of the effect of covered activities and conservation measures on 148 species that are listed or that could become listed during the permit term in the study area.

The Plan includes conservation measures to protect all 18 covered species, whether or not they are currently listed. Accordingly, any nonlisted species addressed by the Plan's conservation strategy will not require additional conservation within the study area should that species become listed during the permit term. See *Regulatory Setting* below for a discussion of why plants are included as covered species.

During Plan development, coverage for fish species was sought from the National Marine Fisheries Service (NMFS) and CDFG for south central California coast steelhead (*Oncorhynchus mykiss*), central California coast steelhead (*Oncorhynchus mykiss*), and Central Valley fall-run Chinook salmon (*Onchorhynchus tshawytscha*). Coverage was also sought from USFWS and CDFG for Pacific lamprey (*Lampetra tridentata*). To provide this coverage, the Permittees worked closely with these agencies to develop an aquatic conservation strategy for these fish that would meet their regulatory standards. A draft aquatic conservation strategy for the covered fish was included in the second administrative draft Habitat Plan released in June 2009. However, after extensive discussions, it was determined that coverage for fish species should be obtained through a separate process in order to allow the Plan to be completed within the desired timeframe. Thus, south central California coast steelhead, central California coast steelhead, Central Valley fall-run Chinook salmon, and Pacific lamprey are not covered by the Habitat Plan. Coverage for these species in the Guadalupe River and Coyote Creek watersheds will be provided, in part, by the Three Creeks HCP being prepared by SCVWD (see Chapter 2 for a discussion of this HCP). Coverage for these species in the Pajaro River watershed will need to be provided through a separate conservation plan or an amendment to this Habitat Plan (see Chapter 10 for the amendment process). NMFS, USFWS, and CDFG have committed to supporting the Local Partners in the development and eventual permitting of this separate strategy.

Species Evaluation

To determine which species would be covered by the Plan, a comprehensive list of 148 special-status species that occur or may occur in the study area was compiled (**Appendix C**). This list was developed by reviewing the following sources.

- California Natural Diversity Database (CNDDB) (2008).
- California Native Plant Society (CNPS) (2007) *Inventory of Rare and Endangered Vascular Plants of California*.
- CDFG lists of Special Animals and Special Plants (California Department of Fish and Game 2003, 2006, 2007).
- An animal species list obtained from the USFWS website for Santa Clara County (U.S. Fish and Wildlife Service 2006).
- Personal communication with local experts including Wildlife Agency staff; SCVWD biologists; representatives of local environmental groups including CNPS Santa Clara Valley Chapter, Santa Clara Valley Chapter of the Audubon Society, and Streams for Tomorrow; and members of the Habitat Plan Science Advisors.

Definition of Special-Status Species

Special-status species are defined as plants and animals that are legally protected under ESA, CESA, or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing.

Special-status plants are species with one or more of the following characteristics.

- Listed or proposed for listing as threatened or endangered under ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants] and various notices in the Federal Register [FR] [proposed species]).
- Candidates for possible future listing as threatened or endangered under the ESA (70 FR 24870–24934, May 11, 2005).
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations [CCR] 670.5).
- Listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.).
- Determined to meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Considered by CNPS to be "rare, threatened or endangered in California" (Lists 1B and 2 in California Native Plant Society 2007) or vascular plants, bryophytes, and lichens listed as having special status by CDFG (California Department of Fish and Game 2007).
- Listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in California Native Plant Society 2007) that may be included on the basis of local significance or recent biological information.

Special-status animals are species with one or more of the following characteristics.

- Listed or proposed for listing as threatened or endangered under the ESA (50 CFR 17.11 [listed animals] and various notices in the FR [proposed species]).
- Candidates for possible future listing as threatened or endangered under the ESA (70 FR 24870–24934, May 11, 2005).
- Determined to meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (14 CCR 670.5).
- Wildlife species of special concern to CDFG (California Department of Fish and Game 2003).

- Fully protected species under the California Fish and Game Code Section 3511(birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians).
- Species with no formal special status but thought by experts to be rare or in serious decline and to warrant special status based on recent information.

Covered Species Criteria

For each special-status species with potential to occur in the study area (**Appendix C**), information was gathered on its status, population trends, distribution, threats, conservation, and management efforts. The following criteria were then applied to each species to determine whether it would be covered (i.e., included in the final permits). To be covered, a species had to meet all four of the following criteria.

Range

The species is known to occur or is likely to occur within the Plan study area, based on credible evidence, or the species is not currently known in the study area but is expected to occur in the study area during the permit term (e.g., through range expansion or reintroduction to historic range).

Status

The species meets at least one of the following statutory criteria.

- Listed under the ESA as threatened or endangered, or proposed for listing.
- Listed under CESA as threatened or endangered or a candidate for such listing.
- Listed under the Native Plant Protection Act as rare.
- Expected to be listed under ESA or CESA within the permit term (assumed to be 50 years). Potential for listing during the permit term is based on current listing status, consultation with experts and Wildlife Agency staff, evaluation of species population trends and threats, and best professional judgment of the biologists working on the Plan.

Impact

The species or its habitat would be adversely affected by covered activities or projects that may result in take of the species.

Data

Sufficient data on the species' life history, habitat requirements, and occurrence in the study area are available to adequately evaluate impacts on the species and to develop conservation measures to mitigate these impacts to levels specified by regulatory standards.

Species proposed for coverage in the Plan were limited to those species for which impacts from covered activities were likely. However, it is important to note that many other special-status species and common species are expected to benefit from the conservation strategy of this Plan, as described in Chapter 5.

1.2.5 Relationship to the Proposed Three Creeks Habitat Conservation Plan

SCVWD is developing the Three Creeks Habitat Conservation Plan (Three Creeks HCP) to protect and enhance habitats for a suite of aquatic species and provide conservation for species impacted by SCVWD's on-going water supply operations in the northern Santa Clara Valley.

The geographic area of the proposedThree Creeks HCP includes the following.

- Coyote Watershed in the eastern portion of the County. Sixteen major creeks drain this 322-square-mile area. The county's largest watershed, it extends from the urbanized valley floor upward to the natural areas of the Mt. Hamilton range. Coyote Creek, its main waterway, is the longest creek in the county.
- Guadalupe Watershed in the east-central part of the County. This 170-square-mile area drains to the Guadalupe River and its tributaries through downtown San José. SCVWD has facilities on four major tributaries: Calero Creek, Alamitos Creek, Guadalupe Creek, and Los Gatos Creek. The Guadalupe River Watershed drains both the Mt. Hamilton Range and the Santa Cruz Mountains Range (Los Gatos Creek).
- Stevens Creek Watershed in the southwest portion of the County. This watershed is part of the Lower Peninsula Watershed, a 98-square-mile area whose many small-creek watersheds feed the tidal wetlands along the San Francisco Bay's southwest shoreline. Stevens Creek has one of the last remaining viable steelhead trout runs in the County.

The geographic area of the proposed Three Creeks HCP partially overlaps with the Habitat Plan study area. The Three Creeks HCP includes the Stevens Creek, Guadalupe, and Coyote watersheds but does not include the Pajaro/Uvas/Llagas watersheds. The Plan study area does not include the Stevens Creek watershed and the Los Gatos Creek portion of the Guadalupe watershed. See **Figure 1-3** for a map of the Three Creeks HCP program area in relation to the Habitat Plan study area.

The proposed Three Creeks HCP covers implementation of capital projects and operations and maintenance activities within its study area related to water supply. The Three Creeks HCP is a standalone document; however, the activities described in Chapter 2 of this Plan that occur in the Three Creeks HCP study area (Guadalupe Creek, Alamitos Creek, Calero Creek, the Guadalupe River, Coyote Creek, and Penitencia Creek) are covered activities under both the Three Creeks HCP and the Habitat Plan. Covered activities described in this Plan that occur in the Uvas/Llagas watersheds are only covered by this Plan. Three Creeks HCP activities within Los Gatos Creek will be covered by this Plan at and below Vasona Lake. The Habitat Plan does not include Stevens Creek or Los Gatos Creek above Vasona Lake.

In addition to the water supply activities, the proposed Three Creeks HCP contains a Conservation Program targeted at the conservation of listed fish species. Some of the conservation actions described in the Three Creeks HCP may have adverse affects on semi-aquatic species covered by this Plan, including the California tiger salamander, California red-legged frog, and western pond turtle. Therefore, this Plan covers the activities described in the Three Creeks HCP Conservation Program for potential impacts to species covered by this Plan. The Three Creeks HCP Conservation Plan is described in Chapter 2.

Under the proposed Three Creeks HCP, SCVWD will request incidental take permits from USFWS and CDFG (through a Fish and Game Code Section 2080.1 concurrence finding or a 2081 incidental take permit) for the species and geographic areas unique to the Three Creeks HCP.

1.3 Regulatory Setting

The Plan is designed primarily to comply with the ESA, CESA, and the NCCP Act. The Plan is also consistent with other federal and state wildlife and related laws and regulations, listed here and described in greater detail below.

- Migratory Bird Treaty Act.
- Bald Eagle and Golden Eagle Protection Act.
- California Fish and Game Code Sections 3511, 4700, 5050, 5515 (fully protected species).
- California Fish and Game Code Section 3503 (bird nests).
- California Fish and Game Code Section 3503.5 (birds of prey).
- National Environmental Policy Act of 1969.
- California Environmental Quality Act of 1970.
- Clean Water Act of 1972 Sections 401 and 404.
- Porter-Cologne Water Quality Control Act.
- California Fish and Game Code Sections 1600–1616 (Lake or Streambed Alteration Agreement).
- National Historic Preservation Act.

1.3.1 Federal and State Endangered Species Laws

Federal Endangered Species Act

USFWS and NMFS administer the ESA. ESA requires USFWS and NMFS to maintain lists of threatened and endangered species and affords substantial protection to listed species. NMFS's jurisdiction under ESA is limited to the protection of marine mammals, marine fishes, and anadromous fishes[11]; all other species are subject to USFWS jurisdiction.

USFWS and NMFS can list species as either *endangered* or *threatened*. An *endangered* species is at risk of extinction throughout all or a significant portion of its range (ESA Section 3[6]). A *threatened* species is likely to become endangered within the foreseeable future (ESA Section 3[19]). Section 9 of the ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened[12]. *Take*, as defined by ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Harm* is defined as "any act that kills or injures the species, including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (50 CFR 17.3). Section 9 prohibits the "removal or reduction to possession" of any listed plant species "under federal jurisdiction" (i.e., on federal land, where federal funding is provided, or where federal authorization is required). Even though under ESA there is no prohibition for take of plants on nonfederal lands, this Plan includes many covered plants. Some plants are covered in order to meet regulatory obligations under ESA Section 7 and to comply with CESA. Incidental take authorization is also requested for plants to provide no-surprises assurances for these species (see Chapter 10 *Assurances*).

The ESA includes mechanisms that provide exceptions to the Section 9 take prohibitions. These are addressed in Section 7 for federal actions and Section 10 for nonfederal actions.

Section 7

Section 7 of the ESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of habitat critical to such species' survival. To ensure that its actions do not result in

[11] *Anadromous fishes* are fish that spend part of their life cycle in the ocean and part in fresh water. NMFS has jurisdiction over anadromous fish that spend the majority of their life cycle in the ocean.

[12] The protection of threatened species under Section 9 is discretionary through a rule issued under Section 4(d) of the ESA. Until a "4(d) rule" is issued by NMFS, threatened anadromous fish or marine species are not protected by the ESA. By regulation, the USFWS automatically affords Section 9 protections to threatened species at the time of listing. These protections can later be modified by USFWS through a 4(d) rule.

jeopardy to listed species or in the adverse modification of critical habitat[13], each federal agency must consult with USFWS or NMFS—or both—regarding federal agency actions that may affect listed species. The issuance of permits for this Plan is a federal action that triggers a Section 7 consultation. Consultation begins when the federal agency submits a written request for initiation to USFWS or NMFS, along with the agency's biological assessment of its proposed action, and when USFWS or NMFS accepts that biological assessment as complete. If USFWS or NMFS concludes that the action is not likely to adversely affect a listed species, the action may be conducted without further review under ESA. Otherwise, USFWS or NMFS must prepare a written biological opinion describing how the agency's action will affect the listed species and its critical habitat. For this Plan, the USFWS will consult internally (with itself) to comply with Section 7 of the ESA.

If the biological opinion concludes that the proposed action would jeopardize the continued existence of a listed species or adversely modify its critical habitat, the opinion will suggest "reasonable and prudent alternatives" that would avoid that result. If the biological opinion concludes that the proposed action would take a listed species but would not jeopardize its continued existence, the biological opinion will include an *incidental take statement*. *Incidental take* is take that is "incidental to, and not intended as part of, an otherwise lawful activity" (64 CFR 60728). The incidental take statement specifies an amount of take that is allowed to occur as a result of the action and may require reasonable and prudent measures to minimize the impact of the take.

Any project with a federal lead agency or federal involvement (e.g., a federal permit, federal funding, or a project on federal land) must obtain their take authorization through Section 7 rather than Section 10 and an HCP. This means that projects with federal involvement cannot directly utilize an approved HCP for their take authorization. However, if the applicant complies with the conservation measures in this Plan, the Section 7 consultation process is expected to be greatly streamlined. Therefore, the covered activities described in Chapter 2 include projects or activities that may need to obtain their take authorization through Section 7. Unless otherwise required by law or regulation, USFWS will ensure that a biological opinion for a project with a federal lead agency that is addressed by the Plan is consistent with the biological opinion for the Habitat Plan. USFWS will not impose measures on applicants for coverage under the Plan in excess of those that have been or will be required by the Implementing Agreement[14], the Plan, and the permits, unless otherwise required by law or regulation. Federal agencies cannot receive the regulatory assurances available under Section 10 of the ESA.

[13] *Critical habitat* is defined as specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register.

[14] The Implementing Agreement is a legal document, signed by all parties, that identifies roles and responsibilities of all parties, including the Permittees and the Wildlife Agencies. The agreement typically incorporates actions from the conservation plan that are agreed to by all parties. See Appendix B for the Implementing Agreement for this Plan.

Section 10

Until 1982, state, local, and private entities had no means to acquire incidental take authorization as could federal agencies under Section 7. Private landowners and local and state agencies risked direct violation of the ESA no matter how carefully their projects were implemented. This statutory dilemma led Congress to amend Section 10 of the ESA in 1982 to authorize the issuance of an incidental take permit to nonfederal project proponents upon completion of an approved conservation plan. The term *conservation plan* has evolved into *habitat conservation plan*.

In cases where federal land, funding, or authorization is not required for an action by a nonfederal entity, the take of listed fish and wildlife species can be permitted by USFWS and/or NMFS through the Section 10 process. Private landowners, corporations, state agencies, local agencies, and other nonfederal entities must obtain a Section 10(a)(1)(B) *incidental take permit* for take of federally listed fish and wildlife species "that is incidental to, but not the purpose of, otherwise lawful activities."

The take prohibition for listed plants is more limited than for listed fish and wildlife. Under Section 9(a)(2)(B) of the ESA, endangered plants are protected from "removal, reduction to possession, and malicious damage or destruction" in areas that are under federal jurisdiction. Section 9(a)(2)(B) of the ESA also provides protection to plants from removal, cutting, digging up, damage, or destruction where the action takes place in violation of any state law or regulation or in violation of a state criminal trespass law. Thus, the ESA does not prohibit the incidental take of federally listed plants on private or other nonfederal lands unless the action requires federal authorization or is in violation of state law. Thus, Section 10 incidental take permits are only required for wildlife and fish species. However, the Section 7(a)(2) prohibition against jeopardy applies to plants, and issuance of a Section 10(a)(1)(B) incidental take permit cannot result in jeopardy to a listed plant species.

The HCP must specify the following mandatory elements.

- The impact that will likely result from the taking of covered species.
- The steps the applicant will take to monitor, minimize, and mitigate such impacts to the maximum extent practicable.
- The funding that will be available to implement such steps.
- The procedures to be used to deal with unforeseen circumstances[15].
- The alternative actions to such taking the applicant considered and the reasons why such alternatives are not proposed to be utilized.

[15] *Unforeseen circumstances* are changes in circumstances affecting a covered species or geographic area covered by the HCP that could not reasonably have been anticipated by the plan developers, and that result in a substantial and adverse change in the status of a covered species.

- Such other measures that the Director [of the Department of Interior or Commerce] may require as being necessary or appropriate for purposes of the plan (50 CFR 17.22(b)).

The Santa Clara Valley Habitat Plan is intended to satisfy these requirements.

To receive an incidental take permit, Section 10(a)(2)(B) of the ESA requires that the following criteria be met.

- The taking will be incidental to otherwise lawful activities.
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.
- The applicant will ensure adequate funding for the HCP and procedures to deal with unforeseen circumstances.
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild.
- The applicant will ensure that other measures that the Services [USFWS and NMFS] may require as being necessary or appropriate will be provided.
- The Services have received such other assurances as may be required that the HCP will be implemented.

Prior to the approval of an HCP, USFWS is required to undertake an internal Section 7 consultation[16] because issuance of an incidental take permit is a federal action. (See the discussion of ESA Section 7, above.) Elements specific to the Section 7 process that are not required under the Section 10 process (e.g., analysis of impacts on designated critical habitat, analysis of impacts on listed plant species, and analysis of indirect and cumulative impacts on listed species) are included in this Plan to meet the requirements of Section 7.

California Endangered Species Act

CESA prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. *Take* is defined under the California Fish and Game Code (more narrowly than under ESA) as any action or attempt to "hunt, pursue, catch, capture, or kill." Therefore, take under CESA does not include "the taking of habitat alone or the impacts of the taking"[17]. Rather, the courts have affirmed that under CESA, "taking involves mortality."

Like ESA, CESA allows exceptions to the prohibition for take that occurs during otherwise lawful activities. The requirements of an application for incidental take under CESA are described in Section 2081 of the California Fish and Game Code. Incidental take of state-listed species may be authorized if an applicant submits an approved plan that minimizes and "fully mitigates" the impacts of this take.

[16] When USFWS issues a permit, they will consult with itself and NMFS, if necessary.
[17] *Environmental Council of Sacramento v. City of Sacramento*, 142 Cal. App. 4th 1018 (2006).

Natural Community Conservation Planning Act

In 1991, California's NCCP Act (California Fish and Game Code, Section 2800 et seq.) was enacted to implement broad-based planning that balances appropriate development and growth with conservation of wildlife and habitat. Pursuant to the NCCP Act, local, state, and federal agencies are encouraged to prepare NCCPs to provide comprehensive management and conservation of multiple species and their habitats under a single plan, rather than through preparation of numerous individual plans on a project-by-project basis. The NCCP Act is broader in its orientation and objectives than are ESA and CESA, and preparation of an NCCP is voluntary. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use. To be approved by CDFG, an NCCP must provide for the conservation of species and protection and management of natural communities in perpetuity within the area covered by permits. *Conservation* is defined by the NCCP Act and the California Fish and Game Code as actions that result in the delisting of state-listed species. Thus, NCCPs must contribute to the recovery of listed species or prevent the listing of nonlisted species rather than just mitigate the effects of covered activities. This recovery standard is one of the major differences between an NCCP and an HCP prepared to satisfy ESA or CESA.

The 1991 NCCP Act was replaced with a substantially revised and expanded NCCP Act in 2002. The revised NCCP Act established new standards and guidance on many facets of the program, including scientific information, public participation, biological goals, interim project review, and approval criteria. The new NCCP Act took effect on January 1, 2003. To approve an NCCP under the new NCCP Act, CDFG must make a series of findings.

- The Plan must be consistent with the Planning Agreement.
- The Plan must provide for the conservation and management of the covered species (*conservation* is defined to mean that the Plan must contribute to species recovery).
- The Plan must protect habitat, natural communities, and species diversity on the landscape level (definitions of these and other NCCP terms are provided in Chapter 3 and **Appendix A**).
- The Plan must conserve the ecological integrity of large habitat blocks, ecosystem function, and biodiversity.
- The Plan must support sustainable populations of covered species.
- The Plan must provide a range of environmental gradients and habitat diversity to support shifting species distributions.
- The Plan must sustain movement of species among reserves.
- Mitigation and conservation must be roughly proportional to impacts in timing and extent.
- Funding for conservation, monitoring, and adaptive management must be adequately assured.

The Santa Clara Valley Habitat Plan is intended to comply with the NCCP Act to conserve the covered species and ecosystems of a significant part of Santa Clara County and to provide authorization for take of covered species in accordance with Section 2835 of the California Fish and Game Code. **Table 1-3** provides a "checklist" of NCCP findings that CDFG must make to issue its NCCP permit along with the locations in the document where those findings are supported.

1.3.2 Other Federal and State Wildlife Laws and Regulations

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918, as amended (MBTA), implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 U.S. Government Code [USC] 703). *Take* is defined more narrowly under the MBTA than under ESA and includes only the death or injury of individuals of a migratory bird species or their eggs. As such, *take* under the MBTA does not include the concepts of harm and harassment as defined under ESA. The MBTA defines migratory birds broadly; all covered birds in this Plan are considered migratory birds under the MBTA.

USFWS provides guidance regarding take of federally listed migratory birds (Appendix 5 in the HCP Handbook [U.S. Fish and Wildlife Service and National Marine Fisheries Service 1996]). According to these guidelines, an incidental take permit can function as a Special Purpose Permit under the MBTA (50 CFR 21.27) for the take of all ESA-listed covered species in the amount and/or number and subject to the terms and conditions specified in an HCP. Any such take will not be in violation of the MBTA (16 USC 703-12). The following covered species are protected by the MBTA.

- Western burrowing owl.
- Least Bell's vireo.
- Tricolored blackbird.

Of these, only least Bell's vireo is currently listed under ESA. Accordingly, once issued, the incidental take permit will automatically function as a Special Purpose Permit under the MBTA, as specified under 50 CFR Sec. 21.27, for least Bell's vireo for a 3-year term subject to renewal by the Permittees. Should any other of the covered birds become listed under ESA during the permit term, the ESA permit would also constitute a Special Purpose Permit under the MBTA for that species for a 3-year term as specified under 50 CFR 21.27 subject to renewal by the Permittees.

Nonlisted covered species as well as other migratory birds not covered by the permit will benefit from seasonal restrictions on construction and other

conservation measures described in this Plan. The creation of the Reserve System and subsequent restoration and management will also be a significant "benefit to the migratory bird resource" as required by the Special Purpose Permit. Compliance with the conditions on covered activities described in Chapter 6 are consistent with the requirements of the MBTA for the covered migratory birds. It will be the responsibility of individual project applicants to fully comply with the MBTA for non-covered migratory birds.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) prohibits the taking or possession of and commerce in bald and golden eagles with limited exceptions. Under the Eagle Act, it is a violation to "take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof." *Take* is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. *Disturb* is further defined in 50 CFR Part 22.3 as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Recent revisions to the Eagle Act authorizes take of bald eagles and golden eagles under the following conditions: (1) where the take is compatible with the preservation of the bald eagle and golden eagle, (2) is necessary to protect an interest in a particular locality, (3) is associated with but not the purpose of an otherwise lawful activity, and (4) for individual instances of take the take cannot be avoided, or (5) for programmatic take the take is unavoidable even though advanced conservation practices are being implemented (50 CFR 22.26). Permits issued under this regulation usually authorize disturbance only; however, in limited cases a permit may authorize lethal take that results from but is not the purpose of an otherwise lawful activity.

Bald and golden eagles are not covered species in this Plan.

California Fully Protected Species

In the 1960s, before CESA was enacted, the California legislature identified specific species for protection under the California Fish and Game Code. These *fully protected* species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of bird species for the protection of livestock. Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These protections state that "…no provision of

this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird], [mammal], [reptile or amphibian], [fish]." This Plan includes conservation measures to avoid taking fully protected species as defined by the California Fish and Game Code[18]. Fully protected species expected to occur in the study area include, but are not restricted to, those listed below.

- Golden eagle.
- American peregrine falcon.
- Southern bald eagle.
- White-tailed kite.
- California condor.
- Ring-tailed cat (= ringtail).

California Fish and Game Code 3503 (Bird Nests)

Section 3503 of the California Fish and Game Code makes it "unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Therefore, CDFG may issue permits authorizing take. The Plan contains conservation measures to avoid and minimize such take to the maximum extent practicable in order to comply with Section 3503. However, some take to covered birds may still occur; the NCCP permit will serve as the authorization for take nests or eggs of covered birds pursuant to Section 3503.

California Fish and Game Code 3503.5 (Birds of Prey)

Section 3503.5 of the California Fish and Game Code prohibits the take, possession, or destruction of any birds of prey or their nests or eggs "except as otherwise provided by this code or any regulation adopted pursuant thereto." CDFG may issue permits authorizing take of birds of prey or their nests or eggs pursuant to CESA or the NCCP Act. The only bird of prey covered by the Plan is the western burrowing owl (**Table 1-2**). The Plan contains conservation measures to avoid and minimize take of western burrowing owl in order to comply with Section 3503.5. The NCCP permit will serve as the authorization for take of birds, eggs, or nests of western burrowing owl that cannot be avoided pursuant to Section 3503.5.

[18] Recent legislation allows NCCPs to provide take authorization for fully protected species covered by an NCCP. Because no fully protected species is covered by this Plan, take of fully protected species must be avoided.

1.3.3 National Environmental Policy Act

NEPA requires federal agencies to include in their decision-making process appropriate and careful consideration of all environmental effects of a proposed action and of possible alternatives. Documentation of the environmental impact analysis and efforts to avoid or minimize the adverse effects of proposed actions must be made available for public notice and review. This analysis is documented in either an environmental assessment or an environmental impact statement (EIS). Project proponents must disclose in these documents whether their proposed action will adversely affect the human or natural environment. NEPA's requirements are primarily procedural rather than substantive in that NEPA requires disclosure of environmental effects and mitigation possibilities but includes no requirement to mitigate.

The issuance by USFWS of an incidental take permit under Section 10 of the ESA constitutes a federal action. Therefore, USFWS must comply with NEPA. To satisfy NEPA requirements, USFWS released a draft EIS in mid-December of 2010 for a 90-day comment period that closed in March 2011. The draft EIS accompanied the draft Habitat Plan.

1.3.4 California Environmental Quality Act

CEQA is similar to but more extensive than NEPA in that it requires that significant environmental impacts of proposed projects be reduced to a less-than-significant level through adoption of feasible avoidance, minimization, or mitigation measures unless overriding considerations are identified and documented that make the mitigation measures or alternatives infeasible. CEQA applies to certain activities in California undertaken by either a public agency or a private entity that must receive some discretionary approval from a California government agency. In issuing the NCCP Act permit, CDFG must comply with CEQA. Similarly, the action of the Local Partners in adopting the Plan is subject to CEQA compliance. The County of Santa Clara is serving as the lead agency under CEQA. To comply with CEQA, the Local Partners released a draft joint environmental impact statement/ environmental impact report (EIS/EIR) in mid-December of 2010. The public comment period on the draft EIS/EIR closed in March 2011. The draft EIS/EIR accompanied the draft Habitat Plan.

The final EIS/EIR prepared for the Habitat Plan is intended to provide programmatic compliance with CEQA for all activities covered by this Plan. Future projects that receive take coverage under the Plan must also comply with CEQA at the project level through their local jurisdiction. It is expected that the conservation provided in this Plan will be sufficient to meet all CEQA mitigation standards for impacts on the special-status species and natural communities that are covered in this Plan. However, because circumstances may change, full CEQA coverage through the EIS/EIR prepared for the Habitat Plan cannot be guaranteed. Barring major changes, it is expected that future CEQA documents for activities that receive take coverage under this Plan will incorporate the conservation measures in this Plan by reference to comply with CEQA for the

covered species and natural communities addressed in this Plan. The Plan implements a conservation strategy designed to achieve a comprehensive set of biological goals and objectives. Furthermore, as an NCCP, the Plan provides for broad-based planning to preserve natural communities at the ecosystem scale.

Many of the conservation measures in the Plan will also benefit other special-status species (i.e., species not covered by the Plan); such measures may be sufficient to meet CEQA standards for these other species as well.

1.3.5 Federal and State Wetland Laws and Regulations

Clean Water Act Section 404

The Clean Water Act is the primary federal law that protects the physical, chemical, and biological integrity of the nation's waters, including lakes, rivers, wetlands, and coastal waters. Programs conducted under the Clean Water Act are directed at both point source pollution (e.g., waste discharged from outfalls and filling of waters) and nonpoint source pollution (e.g., runoff from parking lots). Under the Clean Water Act, the U.S. Environmental Protection Agency (EPA) and state agencies set effluent limitations and issue permits under Clean Water Act Section 402 governing point-source discharges of wastes to waters. The U.S. Army Corps of Engineers (Corps), applying its regulations under guidelines issued by EPA, issues permits under Clean Water Act Section 404 governing under what circumstances dredged or fill material may be discharged to waters. These Section 402 and 404 permits are the primary regulatory tools of the Clean Water Act. EPA has oversight over all Clean Water Act permits issued by the Corps.

The Corps issues two types of permits under Section 404: general permits (either nationwide permits or regional permits) and standard permits (either letters of permission or individual permits). General permits are issued by the Corps to streamline the Section 404 process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for activities that do not qualify for a general permit (i.e., that may have more than a minimal adverse environmental impact).

In early 2012, the Local Partners began pursuing a Regional General Permit (RGP) for the Habitat Plan from the San Francisco District of the Corps for activities covered by the Habitat Plan that also dredge or fill wetlands and other waters of the U.S. The purpose of the RGP would be to provide a simplified and streamlined means for the Corps to authorize activities in waters of the U.S., including wetlands and other waters within the Plan's permit area. The Local Partners anticipate that the RGP would be consistent with the current Nationwide permit program, seeking programmatic coverage for impacts to waters of the U.S. equal to or less than 0.5 acre and 300 linear feet. In certain instances, the

RGP may allow for a slightly increased level of impact to waters of the U.S. Once adopted, the RGP would need to be renewed every 5 years.

Implementation of the proposed RGP is expected to substantially streamline Section 404. Issuance of a Section 404 permit often requires the Corps to consult with USFWS to comply with Section 7 of the ESA. This consultation would address the federally listed species covered by the Plan. Accordingly, it is expected that USFWS will not require any mitigation beyond that already required by the Plan. The Section 7 biological opinions issued for this Plan can also serve as the basis for any future biological opinions in the study area for covered activities. In addition, the conservation actions for impacts to wetlands in this Plan may fully satisfy Corps requirements for wetland mitigation.

Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act

Under Clean Water Act Section 401, states have the authority to certify federal permits for discharges to waters under state jurisdiction. States may review proposed federal permits (e.g., Section 404 permits) for compliance with state water quality standards. The permit cannot be issued if the state denies certification. In California, the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (usually referred to as the Regional Boards) are responsible for the issuance of Section 401 certifications.

The Porter-Cologne Water Quality Control Act is the primary state law concerning water quality. It authorizes the State Board and Regional Boards to prepare management plans such as regional water quality plans (RMC Water and Environment, Jones & Stokes 2006) to address the quality of groundwater and surface water. The Porter-Cologne Water Quality Control Act also authorizes the Regional Boards to issue waste discharge requirements defining limitations on allowable discharge to waters of the state. In addition to issuing Section 401 certifications on Section 404 applications to fill waters, the Regional Boards may also issue waste discharge requirements for such activities. Because the authority for waste discharge requirements is derived from the Porter-Cologne Water Quality Control Act and not the Clean Water Act, waste discharge requirements may apply to a somewhat different range of aquatic resources than do Section 404 permits and Section 401 Water Quality certifications. Applicants that obtain a permit from the Corps under Section 404 must also obtain certification of that permit by the Regional Board with jurisdiction over the project site. In the permit area, the San Francisco Regional Board has jurisdiction over the San Francisco Bay watershed, and the Central Coast Regional Board has jurisdiction over the Monterey Bay watershed. The Plan does not include certifications under Section 401 or waste discharge requirements under the Porter-Cologne Water Quality Control Act. These authorizations, if required, must be obtained separately. The Local Partners intend to work with the local Regional Boards to develop a coordinated process for obtaining required permits.

Lake or Streambed Alteration Agreement

CDFG has jurisdictional authority over streams, lakes, and wetland resources associated with these aquatic systems under California Fish and Game Code Section 1600 et seq. California Fish and Game Code Section 1600 et seq. was repealed and replaced in October 2003 with new Sections 1600–1616 that took effect on January 1, 2004. CDFG has the authority to regulate work that will "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." Activities of any person, state, or local governmental agency, or public utility are regulated by CDFG under Section 1602 of the Code. CDFG enters into a streambed or lakebed alteration agreement with the project proponent and can impose conditions on the agreement to ensure no net loss of values or acreage of the stream, lake, associated wetlands, and associated riparian habitat.

The lake or streambed alteration agreement is not a permit, but rather a mutual agreement between CDFG and the project proponent. Because CDFG includes under its jurisdiction streamside habitats that may not qualify as wetlands under the Clean Water Act definition, CDFG jurisdiction may be broader than Corps jurisdiction.

A project proponent must submit a notification of streambed alteration to CDFG before construction. The notification requires an application fee for streambed alteration agreements, with a specific fee schedule to be determined by CDFG. Many of the concerns raised by CDFG during streambed alteration agreement negotiations are related to special-status species. Activities covered by this Plan that need a streambed alteration agreement are expected to fully meet the standards of the streambed alteration agreement through compliance with this Plan for species covered by the Plan.

1.3.6 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.), requires Federal agencies to take into account the effects of their actions proposed on properties eligible for inclusion in the National Register of Historic Places. "Properties" are defined as "cultural resources", which includes prehistoric and historic sites, buildings, and structures that are listed on or eligible to the National Register of Historic Places. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a Federal agency. The issuance of an incidental take permit is an undertaking subject to Section 106 of the NHPA. The USFWS has determined that the area of potential effects for the present undertaking is that area where on-

the-ground project activities will result in take of species. The NHPA and the potential effects of the conservation strategy on resources subject to the NHPA are discussed in detail in the EIR/EIS.

1.4 Overview of HCP/NCCP Planning Process

1.4.1 Organization of the Planning Process

The Habitat Plan was a coordinated effort by six local agencies (i.e., the Permittees).

- City of Gilroy.
- City of Morgan Hill.
- City of San José.
- County of Santa Clara.
- Santa Clara Valley Water District.
- Santa Clara Valley Transportation Authority.

Although not a Permittee, the Santa Clara County Open Space Authority was also involved in preparing the Plan. Coordination and management of the Plan involved the legislative governing bodies of the six Local Partners, a *Liaison Group* consisting of designated elected officials from each of the Local Partners, a *Management Team* of senior staff managers from each of the Permittees, and a *Stakeholder Group*. A Habitat Plan Program Manager reported to the Management Team and was responsible for day-to-day administration of the planning effort. Each group is described below.

The legislative governing bodies of each Local Partner were responsible for making significant decisions, such as approval or amendment of the Planning Agreement with CDFG and USFWS, approval of project financing, approval of the EIS/EIR, and approval of the draft and final Habitat Plan.

1.4.2 Liaison Group

Elected officials from each Local Partner's legislative body met regularly (i.e., at least every other month) as part of the Liaison Group to review and provide guidance on issues to be acted on by the Elected Bodies as well as issues of concern to the Management Team.

1.4.3 Stakeholder Group

In October 2005, the Management Team, after consultations with the Liaison Group, established a Stakeholder Group. The Stakeholder Group's approximately 25 members represented a wide variety of interests, including conservation organizations, business and development interests, landowners, agricultural interests, open space land-management organizations, and the general public. The Stakeholder Group, which met monthly, reviewed technical and policy issues and made recommendations to staff and elected officials. Meetings were attended by staff from the Local Partners and the Wildlife Agencies, the Program Manager, and, as needed, consultants. The Stakeholder Group, which was facilitated by a consultant, strove to achieve consensus. When consensus was not possible, all views were reported to the Management Team and, when applicable, to the Liaison Group and the Elected Bodies.

1.4.4 Science Advisors

Under its Five-Point Policy, USFWS "encourage[s] the use of scientific advisory committees during development and implementation of an HCP" (65 FR 106 35256, June 1, 2000). Independent scientific input is required by the NCCP Act [Section 2810(b)(5)]. The CDFG provides guidelines for "obtaining independent scientific analysis and input, to assist … plan participants in meeting scientifically sound principles for the conservation and management of species" for assembling a science advisory group, defining their scope of work, involving a facilitator, and providing scientific advice (California Department of Fish and Game 2002). The science advisory process for the Santa Clara Valley Habitat Plan was guided by CDFG's guidelines.

The Local Partners felt that independent scientific input early in the planning process was critical to the success of the Plan. Names of potential advisors were suggested by Local Partners, Wildlife Agencies, and a consultant hired specifically to help develop and run the selection process, plan and implement the Science Advisors workshop, and coordinate preparation of the Science Advisors final report. None of the scientists was affiliated with the Santa Clara Valley Habitat Plan or the Local Partners. Qualifications of candidates included academic record, publications, and practical experience in the study area or with the covered species. Scientists were selected based on their qualifications within the areas of expertise listed below:

- conservation planning, reserve design, and wildlife corridors;
- vegetation ecology (with an emphasis on grassland ecology and rangeland management);
- ecological modeling;
- aquatic ecology/fisheries (with knowledge of salmonids[19]);

[19] The science advisory process occurred while fish were being considered for coverage by the Local Partners and the Wildlife Agencies, including NMFS.

- hydrology, watershed planning, and fluvial geomorphology;
- plant conservation biology (with experience in local serpentine plants, oak woodlands, or riparian sycamore systems);
- herpetology (with emphasis on locally rare amphibians and reptiles);
- ornithology (with an emphasis on local bird species); and
- invertebrate ecology (with emphasis on metapopulation theory; rare species conservation and recovery).

Science Advisors were also selected based on their availability to actively participate in the process. A two-day workshop was held July 6 and 7, 2006. A portion of this workshop was open to the public. Other components included a group field trip and a closed-door session at which time the advisors could talk amongst themselves without the Local Partners or their consultants present. Topics considered by the advisors included the following:

- evaluation of data adequacy for inclusion in the Plan,
- identification of data gaps and sources of uncertainty,
- formulation of biological goals and objectives to conserve covered species and natural communities,
- identification of preserve-design principles and scientifically sound conservation measures for the local area, and
- development of monitoring and adaptive management guidelines for covered species and habitats.

The Science Advisors produced a report documenting their findings that was made available to the public in December 2006. The Local Partners considered all comments from the Science Advisors' final report when developing the Plan. Some Science Advisors were also consulted at various times during Plan development for their advice or review.

A separate group of science advisors was convened on October 1, 2010 to review the working draft of the western burrowing owl conservation strategy. These science advisors were selected based on their expertise with the species locally in the study area and in southern San Francisco Bay.

1.4.5 Management Team

The Management Team, which had primary responsibility for developing the Plan, was made up of senior managers from each Local Partner. The Management Team, Plan Program Manager, and key representatives of the consultants generally met monthly. Responsibilities included making decisions that were outside the responsibility of the Elected Bodies and providing direction to local staff working on the Plan, consultants, and the Plan Program Manager. The Management Team and Program Manager actively and regularly coordinated with representatives of the three Wildlife Agencies in development of the Plan.

1.4.6 Local Agency and Wildlife Agency Technical Coordination

Representatives of the Local Partners, consultants, and the Wildlife Agencies held monthly meetings to address project coordination and technical issues.

1.4.7 Consultant Team

This Plan was prepared by a consultant team under the guidance and direction of the Management Team and the Liaison Group. The Consulting Team consisted of scientific, planning, legal, and other technical staff from ICF International (formerly Jones & Stokes) in San José, Oakland, San Francisco, and Sacramento; Moore Iacofano Goltsman (MIG) in Berkeley; Kleinschmidt Associates in Grass Valley; Land Use Planning Services in Palo Alto; Willdan (formerly MuniFinancial) and Hausrath Associates in Oakland; Albion Environmental in Santa Cruz; Dr. Jerry Smith (San José State University); Resources Law Group in Sacramento; and CH2M Hill in Sacramento.

The members of the Consulting Team had the following responsibilities.

- Land Use Planning Services: Program Management.
- ICF International: development of the Plan and public outreach.
- MIG: stakeholder facilitation.
- Kleinschmidt Associates: Science Advisors selection and facilitation.
- Willdan (MuniFinancial) and Hausrath Economics Group: cost and funding analysis (with assistance from ICF International).
- Albion Environmental: western burrowing owl analysis.
- Dr. Jerry Smith: aquatic analysis.
- Lawrence Ford, Ph.D., LD Ford Rangeland Conservation Science: rangeland conservation.
- CH2M Hill: EIS/EIR preparation.
- Resources Law Group: Implementing Agreement drafting and other legal documents.

1.4.8 Public Outreach and Involvement

Public involvement has been an integral part of the process of developing this Plan. Stakeholders and the public have been actively involved throughout the planning process and have had the following opportunities to provide their input and influence the development of the Plan:

- at least quarterly public meetings of the Liaison Group,

- approximately monthly public meetings of the Stakeholder Group,
- a public workshop of the Habitat Plan Science Advisors,
- community public meetings hosted by the Local Partners at key project milestones (approximately one per year),
- public scoping and public-involvement meetings associated with the CEQA/NEPA process,
- periodic presentations to official governing bodies of participating agencies (e.g., boards, councils, planning commissions),
- many presentations to interested organizations upon request, and
- approximately annual training sessions and tours.

In addition, a website announcing all public meetings, posting all public documents, and accepting comments and feedback was used to engage and inform the public.

The Local Partners developed this Plan in compliance with public involvement guidelines established by USFWS and NMFS (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1996) and the requirements of the NCCP Act.

1.5 Document Organization

This Plan and supporting information are presented in the chapters and appendices listed below. Volumes 1, 2, and 3 contain the Habitat Plan, and Volume 4 contains all appendices.

Volume 1

- Chapter 1, *Introduction*, discusses the background, purpose, and objectives of the Plan; reviews the regulatory setting; and summarizes the Habitat Plan process.
- Chapter 2, *Land Use and Covered Activities*, describes the land uses of the study area and the activities covered under the Plan.
- Chapter 3, *Physical and Biological Resources*, describes the existing conditions of the study area relevant to the Plan.

Volume 2

- Chapter 4, *Impact Assessment and Level of Take*, presents the impacts of the covered activities.
- Chapter 5, *Conservation Strategy*, summarizes the conservation strategy and describes the specific conservation actions to be implemented to mitigate the

impacts of the covered activities and contribute to the recovery of the covered species.

- Chapter 6, *Conditions on Covered Activities and Application Process*, describes the specific surveys and other actions required of all covered activities to avoid and minimize impacts to covered species consistent with federal and state regulations.

Volume 3

- Chapter 7, *Monitoring and Adaptive Management Program*, discusses the monitoring requirements and adaptive management procedures associated with implementation of conservation actions and reserve management.
- Chapter 8, *Plan Implementation*, details the administrative requirements associated with Plan implementation and the roles and responsibilities of the Permittees and Wildlife Agencies.
- Chapter 9, *Costs and Funding*, reviews the costs associated with Plan implementation and the funding sources proposed to pay for those costs.
- Chapter 10, *Assurances*, describes the protections for Permittees and neighboring landowners in the event of changed circumstances or unforeseen circumstances, as well as the procedures for modifying or amending the Plan.
- Chapter 11, *Alternatives to Take*, presents the required analysis of alternatives to take of covered species.
- Chapter 12, *List of Preparers*, identifies the individuals involved in the preparation of this document.
- Chapter 13, *Literature Cited*, is a comprehensive bibliography of references cited in the text.

Volume 4

- Appendix A, *Glossary*, is a list of terms and their definitions used in this document.
- Appendix B, *Implementing Agreement*, is a copy of the Implementing Agreement that will be entered into by the Permittees and the Wildlife Agencies. This appendix includes three attachments including a covered species list, the *Implementing Ordinance Template*, and the *Neighboring Landowner Certificate of Inclusion*.
- Appendix C, *Evaluation of Special-Status Species for Coverage in the Habitat Plan*, lists the special-status species that were considered for coverage under this Plan, their legal status, their coverage under the Plan (covered or not covered status), and the rationale for coverage.
- Appendix D, *Species Accounts*, presents detailed ecological accounts of all covered species, including models of habitat distribution (i.e., habitat models) that were developed for selected species.

- Appendix E, *Nitrogen Deposition Contribution Estimates*, provides a technical report on the effects of covered activities on airborne nitrogen and its deposition on serpentine grasslands and other habitats in the study area.
- Appendix F, *Climate Change Analysis*, provides technical details supporting the discussion of the potential effects of climate change on the Reserve System and covered species.
- Appendix G, *Cost Model*, describes the cost model used to estimate Plan costs described in Chapter 9.
- Appendix H, *Conservation Easement Template,* is the template that will be used for conservation easements that protect Reserve System lands.
- Appendix I. Not used.
- Appendix J, *Monitoring at Different Levels*, describes the three levels at which monitoring is conducted. This technical detail supports Chapter 7.
- Appendix K, *California Tiger Salamander Hybridization*, provides technical details supporting the conservation strategy for California tiger salamander in Chapter 5.
- Appendix L, *Fish Habitat Assemblage Data*, provides an overview of mapping methods and results for native fish communities in the study area.
- Appendix M, *Western Burrowing Owl Conservation Strategy*, provides details on the conservation strategy for the western burrowing owl which are summarized in Chapter 5.
- Appendix N, *Burrowing Owl Population Viability Analysis Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP)—March 2010*, is a technical report supporting the western burrowing owl conservation strategy (Appendix M).
- Appendix O, *List of Acronyms and Abbreviations*, lists the acronyms and abbreviations used in this document. It can be folded out for convenient reference.

Table 1-1. Local Planning Documents and Time Horizons Relevant to the Permit Term

Document	Date Produced	Projection/ Time Horizon	Plan Duration
Bay Area Integrated Regional Water Management Plan (SCVWD)	2006	2026	20 years
City of Gilroy General Plan	2000 (adopted in 2002)	2020	18 years
City of Morgan Hill General Plan	July 2001; as amended to July 2006	2025	24 years
City of San José General Plan	2011	2040	30 years
County of Santa Clara General Plan	1994; updated 2001	2010	16 years
Coyote Watershed Stream Stewardship Plan (SCVWD)	2002	At least until 2016	14 years
Guadalupe Watershed Stream Stewardship Plan (SCVWD)	2006	living document	Not defined
Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) Settlement Agreement and Three Creeks HCP (SCVWD)	Under development	—	50 years
Flood Protection and Stream Stewardship Program (SCVWD) (capital improvements are included in this plan)	Adopted by the Board of Directors and approved by the voters in November 2000	2001–2016	15 years
Pajaro River Watershed Integrated Regional Water Management Plan	2007	2027	20 years
South County Airport Master Plan Report (Santa Clara County)	2006	2025	20 years
Strategic Plan for the Santa Clara County Parks and Recreation System	2003	2013	10 years
Urban Water Management Plan 2005 (SCVWD)	2005	2030	25 years
Valley Transportation Plan 2035 (VTA)	2009	2035	25 years

Sources: City of Gilroy 2002; City of Morgan Hill 2001; City of San José 2011; County of Santa Clara 1994, 2006; County of Santa Clara, Parks and Recreation Department 2003; Santa Clara Valley Water District 2000, 2002a, 2002b, 2005b; Santa Clara Valley Transportation Authority 2009.

Table 1-2. Species Proposed for Coverage in the Santa Clara Valley Habitat Plan

Species	Scientific Name	Status[1] State/CNPS	Status[1] Federal
Invertebrates			
Bay checkerspot butterfly	*Euphydryas editha bayensis*	–	FT
Amphibians and Reptiles			
California tiger salamander	*Ambystoma californiense*	ST	FT
California red-legged frog	*Rana draytonii*	CSC	FT
Foothill yellow-legged frog	*Rana boylii*	CSC	–
Western pond turtle	*Clemmys marmorata*	CSC	–
Birds			
Western burrowing owl	*Athene cunicularia hypugea*	CSC	MBTA
Least Bell's vireo	*Vireo bellii pusillus*	SE	FE, MBTA
Tricolored blackbird	*Agelaius tricolor*	CSC	MBTA
Mammals			
San Joaquin kit fox	*Vulpes macrotis mutica*	ST	FE
Plants			
Tiburon Indian paintbrush	*Castilleja affinis* ssp. *neglecta*	ST/1B	FE
Coyote ceanothus	*Ceanothus ferrisiae*	1B	FE
Mount Hamilton thistle	*Cirsium fontinale* var. *campylon*	1B	–
Santa Clara Valley dudleya	*Dudleya abramsii* ssp. *setchellii*	1B	FE
Fragrant fritillary	*Fritillaria liliacea*	1B	–
Loma Prieta hoita	*Hoita strobilina*	1B	–
Smooth lessingia	*Lessingia micradenia* var. *glabrata*	1B	–
Metcalf Canyon jewelflower	*Streptanthus albidus* ssp. *albidus*	1B	FE
Most beautiful jewelflower	*Streptanthus albidus* ssp. *peramoenus*	1B	–

Notes:

[1] Status

Federal

FE Federally Endangered.
FT Federally Threatened.
BGPA Bald and Golden Eagle Protection Act.
MBTA Migratory Bird Treaty Act.
SOC Species of Concern (National Marine Fisheries Service only).

State

SE State Listed as Endangered.
ST State Listed as Threatened.
SR State Listed as Rare.
SC Candidate.
CSC California Special Concern Species.
FP Fully Protected.

California Native Plant Society (CNPS)

1B Rare, Threatened, or Endangered in California and Elsewhere.

Table 1-3. Checklist for NCCP Act Requirements

Requirement (Fish and Game Code Section)	Applicable Habitat Plan Sections[1]
The plan was developed in accordance with the process identified in the planning agreement per Section 2810. (2820(a)(1))	Chapter 1 *Introduction*, Section 1.1.3 *Background* and Section 1.3.1 *Federal and State Endangered Species Laws* subheading *Natural Community Conservation Planning Act* Chapter 8 *Plan Implementation*, Section 8.6.2 *Land Acquired by Other Organizations or through Partnerships* subheading *Land Acquisition during Plan Development* (*Interim Conservation*)
The plan integrates adaptive management strategies that are periodically evaluated and modified based on information from monitoring programs and other sources; these strategies assist conservation of covered species and ecosystems within the plan area. (2820(a)(2))	Chapter 5, *Conservation Strategy*, Section 5.3, *Conservation Actions* Chapter 6 *Conditions on Covered Activities and Application Process*, Section 6.3 *Conditions on All Covered Activities* Chapter 7 *Monitoring and Adaptive Management Program*, Section 7.1.1 *Regulatory Context*, Section 7.1.2 *Adaptive Management*, and Section 7.3 *Monitoring and Management Actions* Figure 7-2 *Adaptive Management Process*
[The plan] Protects habitat, natural communities, and species diversity on a landscape or ecosystem basis through the creation and long-term management of habitat reserves or other measures that provide equivalent conservation of covered species appropriate for land, aquatic, and marine habitats within the plan area. (2820(a)(3))	Chapter 1 *Introduction*, Section 1.1.2 *Purpose* Chapter 5 *Conservation Strategy*, Section 5.2.3 *Reserve System*, Section 5.2.4 *Aquatic Habitat Protection and Enhancement*, Section 5.2.5 *Land Management*, Section 5.3.1 *Land Acquisition and Restoration Actions* through Section 5.3.7 *Wetland and Pond Conservation and Management*
[The plan] Conserves, restores, and manages representative natural and semi-natural landscapes to maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity. (2820(a)(4)(A))	Chapter 3 *Physical and Biological Resources*, Section 3.3.1 *Definitions*, Section 3.3.4 *Biological Diversity of the Study Area*, and Section 3.3.5 *Natural Communities and Land-Cover Types* (ecosystems discussed in each Natural Community) Chapter 5 *Conservation Strategy*, Section 5.2.3 *Reserve System*, Section 5.2.4 *Aquatic Habitat Protection and Enhancement*, Section 5.2.5 *Land Management*, Section 5.3.1 *Land Acquisition and Restoration Actions* through Section 5.3.7 *Wetland and Pond Conservation and Management*
[The plan] Establishes one or more reserves or proposes other measures that provide equivalent conservation of covered species within the plan area and linkages between them and adjacent habitat areas outside of the plan area. (2820(a)(4)(B))	Chapter 5 *Conservation Strategy*, Section 5.2.3 *Reserve System* subheading *Landscape Linkages*, Section 5.2.4 *Aquatic Habitat Protection and Enhancement*, and Section 5.3.1 *Land Acquisition and Restoration Actions* Table 5-9 *Landscape Linkages in and Near the Study Area Considered for the Reserve Design* Table 5-5 *Existing Open Space and Interim Conservation Lands Proposed for the Reserve System and Specific Conservation Actions within Each Site* Figure 5-6 *Potential Landscape Linkages in and Near the Study Area* Figure 5-8 *Land Acquisition Strategy with Applicable Landscape Linkages*

Requirement (Fish and Game Code Section)	Applicable Habitat Plan Sections[1]
[The plan] Protects and maintains habitat areas that are large enough to support sustainable populations of covered species. (2820(a)(4)(C))	Chapter 5 *Conservation Strategy*, Section 5.2.1 *Biological Goals and Objectives* subheading *Natural Community–Level Goals*, and Section 5.4 *Benefits of and Additional Conservation Actions for Covered Species* (descriptions for each covered species) Table 5-16 *Species Occurrences, Impacts, and Conservation Requirements for Covered Plants* Table 5-17 *Commitments to Acquire and Enhance Modeled Habitat in the Reserve System for Covered Species with Models (acres)*
[The plan] Sustains the effective movement and interchange of organisms between habitat areas to maintain ecological integrity of habitat within the plan area. (2820(a)(4)(E))	Chapter 3 *Physical and Biological Resources*, Section 3.3.1 *Definitions* subheading *Ecological Integrity* Chapter 5 *Conservation Strategy*, Section 5.2.3 *Reserve System* subheading *Landscape Linkages*, Section 5.2.4 *Aquatic Habitat Protection and Enhancement*, Section 5.3.1 *Land Acquisition and Restoration Actions*, and Section 5.3.2 *Landscape Conservation and Management* subheading *Connectivity and Permeability* Table 5-9 *Landscape Linkages in and Near the Study Area Considered for the Reserve Design* Figure 5-6 *Potential Landscape Linkages in and Near the Study Area* Figure 5-8 *Land Acquisition Strategy with Applicable Landscape Linkages*
The plan incorporates a range of environmental gradients (such as slope, elevation, aspect, and coastal or inland characteristics) and high habitat diversity; this provides for shifting distributions of species due to changed circumstances. (2820(a)(4)(D))	Chapter 3 *Physical and Biological Resources*, Section 3.2.2 *Topography*, Section 3.2.4 *Soils*, Section 3.2.5 *Climate and Hydrology*, Section 3.3.1 *Definitions* subheading *Environmental Gradients* Figure 3-1 *Santa Clara Valley HCP/NCCP Topography* Figure 3-2 *Santa Clara Valley HCP/NCCP Slope in Degrees* Figure 3-3 *Soils in the Santa Clara Valley HCP/NCCP Area* Figure 3-4 *Santa Clara Valley HCP/NCCP Serpentine Areas* Figure 3-5 *Average Annual Rainfall in HCP/NCCP Study Area* Figure 3-6 *Santa Clara Valley HCP/NCCP Watersheds* Chapter 5 *Conservation Strategy*, Section 5.3.2 *Landscape Conservation and Management* subheading *Biological Goals and Objectives* Table 5-1a *Biological Goals, Objectives and Conservation Actions: Landscape Level* Table 5-11 *Land Acquisition and Enhancement Requirements within the Study Area for Selected Terrestrial Land-Cover Types (acres)*

Table 1-3. Continued

Requirement (Fish and Game Code Section)	Applicable Habitat Plan Sections[1]
The plan identifies allowable activities and restrictions within reserve areas compatible with conservation of species, habitats, natural communities, and associated ecological functions. (2820(a)(5))	Chapter 2 *Land Use and Covered Activities*, Section 2.3.8 *Conservation Strategy Implementation* Chapter 4 *Impact Assessment and Level of Take*, Section 4.3.7 *Conservation Strategy Implementation* subheading *Activities within the Reserve System* Chapter 6 *Conditions on Covered Activities and Application Process*, Section 6.4.*6 Reserve System Implementation* subheadings *Condition 9. Prepare and Implement a Recreation Plan* and *Condition 10. Fuel Buffer*, Section 6.5 *Conditions to Minimize Impacts on Natural Communities* subheading *Condition 11. Stream and Riparian Setbacks* (most other Conditions also apply to the Reserve System)
The plan contains specific conservation measures that meet the biological needs of covered species and that are based on the best available scientific information about the status of covered species and the impacts of permitted activities on those species. (2820(a)(6))	Chapter 3 *Physical and Biological Resources*, Section 3.3.3 *Covered Species* Chapter 5 *Conservation Strategy*, Section 5.4 *Benefits of and Additional Conservation Actions for Covered Species* Table 5-1c *Biological Goals, Objectives and Conservation Actions: Wildlife* Table 5-1d *Biological Goals, Objectives and Conservation Actions: Plants* Chapter 6 *Conditions on Covered Activities and Application Process* Appendix D *Species Accounts* (for best available scientific information on the covered species)
The plan contains a monitoring program. (2820(a)(7))	Chapter 7 *Monitoring and Adaptive Management Program*
The plan contains an adaptive management program. (2820(a)(8))	Chapter 7 *Monitoring and Adaptive Management Program*
The plan includes an estimated timeframe and process for implementing reserves or other conservation measures, including obligations of landowners and plan signatories and consequences for failure to acquire lands in a timely manner. (2820(a)(9))	Chapter 5 *Conservation Strategy*, Section 5.3.1 *Land Acquisition and Restoration Actions* subheading *Stay-Ahead Provision and Rough Proportionality* Tables 5-1a and 5-1b *Biological Goals, Objectives and Conservation Actions: Landscape-Level and Natural Community-Level* Table 5-14 *Commitments by Time Period for Restoration and Creation Requirements that Contribute to Species Recovery* Chapter 8 *Plan Implementation*, Section 8.6.1 *Stay-Ahead Provision*
The plan ensures that mitigation and conservation measures are roughly proportional in time and extent to the impact on habitat or covered species authorized under the plan. These provisions identify (a) the conservation measures—including assembly of reserves where appropriate and implementation of monitoring and management activities—that the landowner will maintain or carry out in rough proportion to the impact on habitat or covered species and (b) the measurements that will be used to determine if this occurs. (2820(b)(3)(D)(9))	Chapter 5 *Conservation Strategy*, Section 5.3.1 *Land Acquisition and Restoration Actions* subheading *Stay-Ahead Provision and Rough Proportionality* Table 5-1a *Biological Goals, Objectives and Conservation Actions: Landscape Level* Table 5-1b *Biological Goals, Objectives and Conservation Actions: Natural Community Level* Table 5-1c *Biological Goals, Objectives and Conservation Actions: Wildlife* Table 5-1d *Biological Goals, Objectives and Conservation Actions: Plants*

Requirement (Fish and Game Code Section)	Applicable Habitat Plan Sections[1]
	Table 5-11 *Land Acquisition and Enhancement Requirements within the Study Area for Selected Terrestrial Land-Cover Types* (acres) Table 5-12 *Required Preservation, Enhancement, Restoration and Creation Mitigation Ratios and Estimated Acquisition, Enhancement, Restoration, and Creation Requirements for Aquatic Land Cover Types* Table 5-16 *Species Occurrences, Impacts, and Conservation Requirements for Covered Plants* Chapter 8 *Plan Implementation*, Section 8.6.1 *Stay-Ahead Provision*
The plan ensures adequate funding to carry out the conservation measures identified in the plan. (2820(a)(10))	Chapter 9 *Costs and Funding*, Section 9.4 *Funding Sources and Assurances* Table 9-5 *Funding Sources*
The plan defines species coverage, including any conditions of coverage (2820(b)(1)). The plan establishes long-term protection of habitat reserves or provides equivalent conservation of covered species (2820(b)(2)).	Chapter 3 *Physical and Biological Resources*, Section 3.3.3 *Covered Species* Chapter 5 *Conservation Strategy*, Section 5.2.3 *Reserve System*, Section 5.2.4 *Aquatic Habitat Protection and Enhancement*, and Section 5.3.1 *Land Acquisition and Restoration Actions*
The plan defines specific terms and conditions, which, if violated, would result in the suspension or revocation of the permit, in whole or in part. CDFG will include a provision requiring notification to the plan participant of a specified period of time to cure any default prior to suspension or revocation of the permit in whole or in part. These terms and conditions will address, but are not limited to, provisions specifying the actions CDFG will take under all of the following circumstances (2820(b)(3)): The plan participant fails to provide adequate funding. The plan participant fails to maintain the rough proportionality between impacts on habitat or covered species and conservation measures. The plan participant adopts, amends, or approves any plan or project without the concurrence of the wildlife agencies that is inconsistent with the objectives and requirements of the approved plan. The level of take exceeds that authorized by the permit.	Chapter 5 *Conservation Strategy*, Section 5.3.1 *Land Acquisition and Restoration Actions* subheading *Stay-Ahead Provision and Rough Proportionality* Chapter 6, *Conditions on Covered Activities and Application Process*, Section 6.1 *Introduction* (regarding approval of plans or project inconsistent with the Plan) Chapter 8 *Plan Implementation*, Section 8.6.1 *Stay-Ahead Provision* Chapter 9 *Costs and Funding*, Section 9.4 *Funding Sources and Assurances*, Section 9.4.4 *Funding Adequacy* Table 9-5 *Funding Sources* Implementing Agreement, Section 16.3 *Suspension of the State Permit*
The plan specifies procedures for amendment of the plan and the implementation agreement (2820(b)(4)).	Chapter 10 *Assurances*, Section 10.3 *Modifications to the Plan*
The plan ensures implementation of a monitoring program and adaptive management program. (2820(b)(5)).	Chapter 7 *Monitoring and Adaptive Management Program*, Section 7.1.1 *Regulatory Context*
The plan provides for oversight of plan implementation to assess mitigation performance, funding, and habitat protection measures. (2820(b)(6))	Chapter 8 *Plan Implementation*, Section 8.3.8 *Reserve Management and Monitoring* subheading *Structure of the Adaptive Management Decision-Making Process* and Section 8.10 *Data Tracking*

Table 1-3. Continued

Requirement (Fish and Game Code Section)	Applicable Habitat Plan Sections[1]
The plan provides for periodic reporting to the wildlife agencies and the public for purposes of information and evaluation of plan progress. (2820(b)(7))	Chapter 8 *Plan Implementation*, Section 8.11 *Reporting*
The plan provides mechanisms to ensure adequate funding to carry out the conservation actions identified in the plan. (2820(b)(8))	Chapter 9 *Costs and Funding*, Section 9.4 *Funding Sources and Assurances* Table 9-5 *Funding Sources*
The plan stipulates that if a participant does not maintain proportionality between *take* and conservation measures specified in the implementation agreement and does not either (a) cure the default within 45 days or (b) enter into an agreement with CDFG within 45 days to expeditiously cure the default, CDFG will suspend or revoke the permit, in whole or in part. (2820(c))	Chapter 8 *Plan Implementation*, Section 8.6.1 *Stay-Ahead Provision* subheading *Measurement of Stay-Ahead Provision* Implementing Agreement, Section 16.3.1 *Failure to Maintain Rough Proportionality*
The plan requires that data and reports associated with monitoring programs be available for public review; the landowner must also conduct public workshops on an annual basis to provide information and evaluate progress toward attaining the conservation objectives of the plan. (2820(d))	Chapter 7 *Monitoring and Adaptive Management Program*, Section 7.4 *Data and Reporting*, and Section 7.2.3 *Program Implementation* subheading *Program Infrastructure* Chapter 8 *Plan Implementation*, Section 8.2.7 *Public Input*, and Section 8.11 *Reporting*

Note:

[1] Only the primary applicable sections of the Plan are listed. Other sections may apply or be cross-referenced by the sections listed in this table.

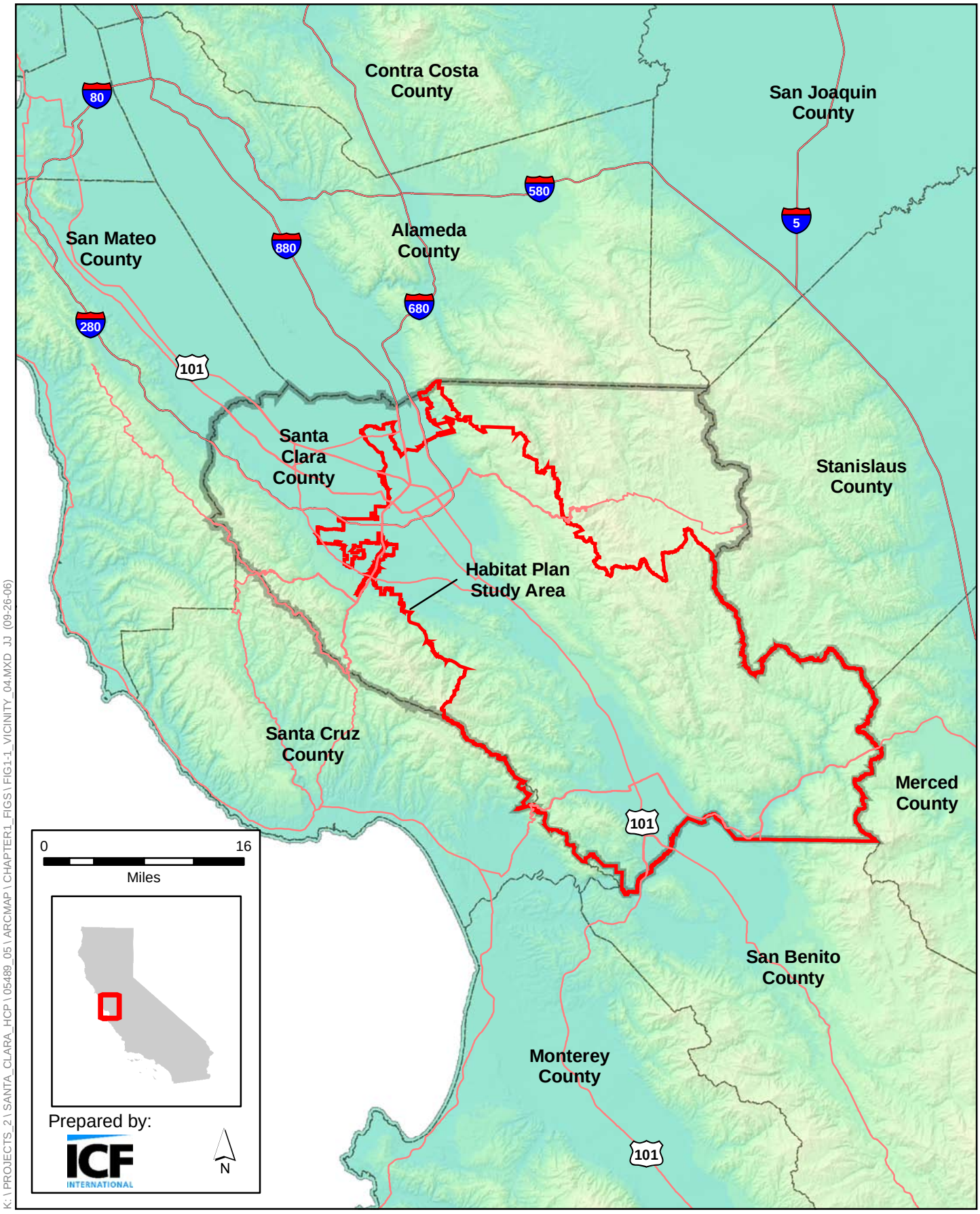

Figure 1-1
Regional Location of the Habitat Plan Study Area

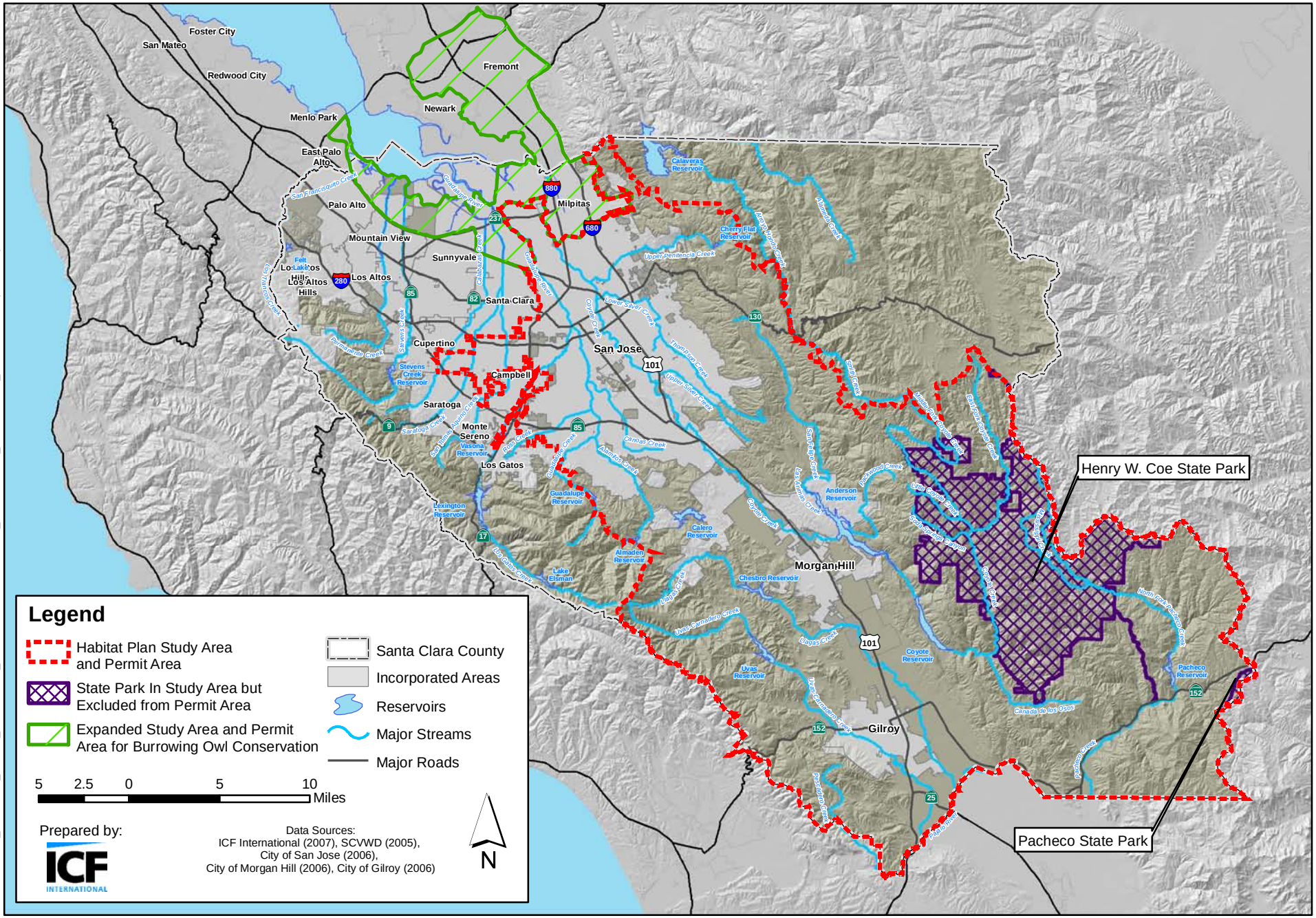

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Figure 1-2
Santa Clara Valley Habitat Plan Study Area and Permit Area

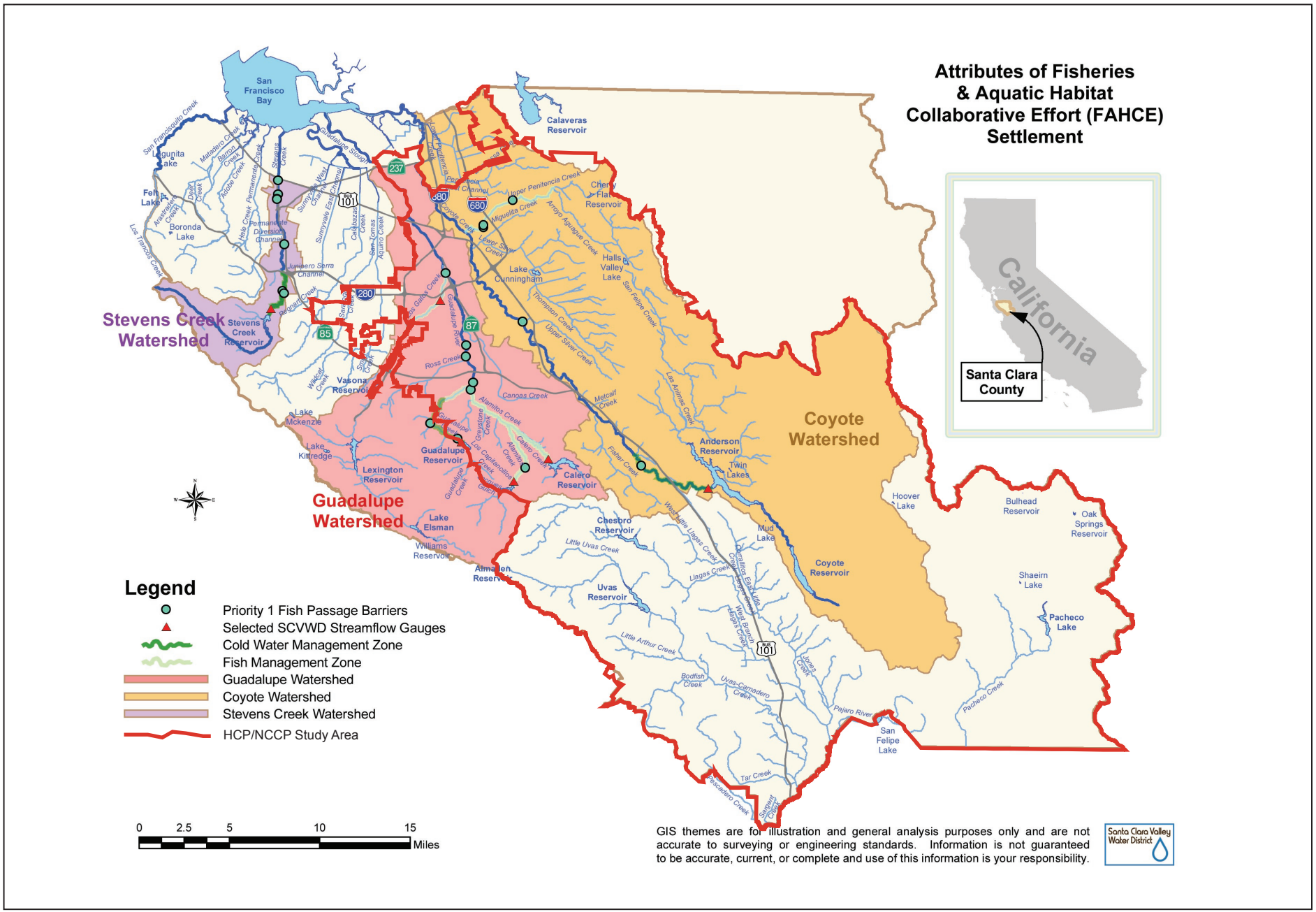

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Figure 1-3
FAHCE Program Boundary