Chapter 9
Costs and Funding

9.1 Introduction

This chapter describes the method used to estimate the financial resources (costs) and funding needed to implement the Habitat Plan over the 50-year planning horizon. Fees and other funding sources that support implementation of the Plan are identified, as is the funding needed to support ongoing management of the Reserve System after the permit term ends and funding adequacy.

As described in Chapter 1, as of the completion of this Plan the Local Partners were working with the Corps to develop a Regional General Permit for this Plan. Any additional costs associated with implementing the Regional General Permit are not accounted for in this chapter.

9.2 Cost to Implement the Habitat Plan

Estimating the full costs of the Habitat Plan was an essential step to demonstrate adequate funding necessary to meet regulatory standards. In order to provide enough funding, all costs associated with the conservation actions had to be identified. Because of the geographic scale of the Plan, the complexity of the conservation actions, and long time scale over which these actions will occur, the cost estimating process involved many assumptions. These costs are identified for planning purposes only to estimate funding levels needed to implement the Plan. The Implementing Entity will be responsible for annually preparing and approving a budget for Plan Implementation, based on current information and projections regarding Habitat Plan assets, revenues and expenses.

Major cost categories are listed below and summarized in this chapter.

- Land acquisition.
- Reserve management and maintenance, including adaptive management.
- Habitat and covered plant occurrence restoration/creation.
- Monitoring, research, and scientific review.
- Program administration.

- Contingency.
- Costs in perpetuity.

The anticipated cost of each category is shown in **Table 9-1** which summarizes total costs, capital costs, and operational costs for the Habitat Plan. All costs are in 2010 dollars[1]. Costs are also estimated after the permit term as an average annual cost. Cost components expected after the permit term in perpetuity are described in Section 9.3.7 *Costs in Perpetuity*.

9.3 Cost Estimate Methodology

To estimate Plan costs, a cost model was developed that identified specific costs in the major cost categories (listed above) needed to fulfill terms and conditions of the Plan (**Appendix G** provides the assumptions and output of the model). The cost model was designed to demonstrate that Plan-related costs were accounted for and reasonably estimated. The model structure was refined and expanded from cost models developed for three large, complex regional HCPs and NCCPs[2]. The goal of the cost model was to conservatively estimate expenses of the Implementing Entity over the permit term so that overall costs are understood. This allows the Local Partners to estimate costs over the lifetime of the Plan and post-permit costs so that funding needs can be determined and a fee structure developed.

During Plan implementation, the cost model can be updated to assist the planning process as the assumptions are refined. Model assumptions are listed and described below by cost category and built into the model to facilitate updates. It is assumed that all cost components will increase due to inflation over time; as such, these were tied to cost-of-living statistics[3]. Cost assumptions for operations, maintenance, and administration were developed using local comparable cost data from land management agencies in the study area (County Parks and Open Space Authority) and the Local Partners when available, and from other sources where data from local agencies were unavailable[4]. A separate land valuation analysis was used to develop land acquisition cost estimates (see Section 9.3.1 *Land Acquisition* for more detail).

While the Implementing Entity is responsible for ensuring implementation of all of the requirements described in Chapter 8, it is assumed that that the Implementing Entity will leverage the resources of Local Partners when possible to use funding as efficiently as possible. As such, it is expected that local land

[1] Costs will vary over the 50-year permit term primarily due to the size of the Reserve System. To predict the general timing of funding needs, costs are summarized by 5-year periods except for Year 0, which contains initial start-up expenses. However, the cost model will be used during implementation to forecast start up costs.
[2] The Lower Colorado River Multi-Species Conservation Plan (approved), the East Contra Costa County HCP/NCCP (approved), and the Placer County Conservation Plan (an in-process HCP/NCCP).
[3] The Consumer Price Index (CPI) for the San Francisco-Oakland-San Jose Metropolitan Service Area from the U.S. Bureau of Labor Statistics was used as needed to increase cost estimating factors during the planning process.
[4] Model cells are color-coded to indicate data sources. See **Appendix G**.

management agencies and other entities will perform many of the functions of the Implementing Entity. In this case, the Implementing Entity will be "outsourcing" implementation tasks to these organizations and paying them to act on the Implementing Entity's behalf. The costs summarized in this chapter are therefore estimates of expenses incurred by the Implementing Entity or payments to contract agencies, landowners, consultants, or contractors to perform their work.

The assumptions used to develop land acquisition and management costs warrant additional discussion. Several acreage figures appear only in the cost model and do not correlate to conservation strategy requirements. The total size of the Reserve System will be at least 46,496 acres and up to an estimated 46,920 acres (Chapter 5). This includes 33,205 to 33,629 acres of new acquisitions that fulfill specific land cover requirements. However, the cost model assumes that new acquisitions for the Reserve System will total 36,100 acres (**Table 9-2**). This is because the cost model assumes that some "non-target" acres will be acquired in addition to targeted land cover types. For example, an acquired parcel may include land cover types without acquisition, restoration, or creation requirements, such as agricultural or developed land cover types. In addition, up to 13,291 acres of existing open space will be contributed to the Reserve System (**Table 5-5** and **Table 9-2**). Acreages used to estimate management and monitoring costs are based on acreages consistent with the conservation strategy (**Table 9-3**) and do not assume management or monitoring costs for the "non-target" land cover types that are included in the acquisition costs.

Details of each cost category and the key assumptions that were used to develop the Habitat Plan cost estimate are described below. The costs in perpetuity are described in Section 9.3.7 *Costs in Perpetuity*. See the cost model in **Appendix G** for an accounting of all assumptions.

9.3.1 Land Acquisition

Land acquisition is the biggest component of overall Plan costs and acres of acquired land provides the foundation for estimating operational (management and monitoring) costs. Land acquisition is needed to develop the Reserve System to: 1) mitigate impacts from public and private sector development authorized by permits issued for the Habitat Plan, and 2) contribute to the recovery of the covered species.

The proposed Reserve System has two integrated land elements:

1. new land that is acquired (in fee or by easement) to meet the conservation strategy requirements described in Chapter 5 and summarized in **Table 5-13**; and
2. existing open space that is managed to support recovery of covered species.

Existing open space areas proposed for enrollment into the Reserve System have been evaluated to ensure that they offer opportunities to achieve notable benefits

for covered species through additional land management. However, these lands were not included in the land acquisition analysis as they are existing open space.

Land acquisition costs include the price of the land or conservation easement, land transaction costs, and initial site improvements required upon purchase.

Land Acquisition Costs

Land acquisition capital costs, including site improvements, are estimated to be approximately 72% of all capital costs, or approximately $268 million (**Table 9-1**). This estimate relies on the assumption that 50% of newly acquired lands would be acquired in fee title (as opposed to conservation easement), and that a conservation easement is 80% of the cost of fee title. This assumption of 50% fee title acquisition applies to all acquisitions, except for those on the valley floor. On the valley floor, all lands are assumed to be acquired in fee title. As such, the resulting overall percent of fee title acquisitions is assumed to be 52%. Gifts of land or transfer of a conservation easement associated with a development project may occur and would reduce land acquisition costs. However, for the purposes of the cost estimate none were assumed. **Table 9-2** provides a summary of land acquisition acreages.

For this cost model, fee title land values were based on a review of comparable private market sales of open space lands in Santa Clara County and interviews with appraisers, real estate brokers, and land management agencies active in the region[5] and values based on parcel size categories and location in the study area[6]. The land acquisition cost factors used in this cost estimate range from $6,000 per acre to $34,000 per acre. The actual sale price of individual properties over the permit term will vary considerably.

For planning purposes, fee title and conservation easement land acquisitions are assumed to occur evenly through time over the course of the permit term. Land costs are expected to increase over time; mechanisms for addressing these increases are described in Section 9.4 *Funding Sources and Assurances*. Land acquisition and associated costs are expected to be incurred for the first 45 years of the permit term but not beyond it.

Some newly acquired land may need to be stabilized before habitat management, restoration activities, or public access can begin. Site improvements may include demolition or repair of unsafe facilities; repair of boundary fences; repair and replacement of gates; installation of signs (e.g., boundary and landmark signs); road repair and/or removal; and repair and replacement of creek crossings. Cost estimates were based on a cost per acquired parcel basis.

[5] See **Appendix G**: *Assessment of Open Space Land Sales Used in the Santa Clara Valley Habitat Plan Economic Analysis.*

[6] Parcels sizes were grouped into one of three categories: less than 50 acres, 50–250 acres, and greater than 250 acres. The location analysis was based on the five zones that match those defined for the impact assessment of rural development (Section 4.4.1 *Direct Effects* and **Figure 4-1**).

Land Transaction Costs

Land transaction costs cover due diligence activities related to parcels considered for acquisition and reconnaissance-level biological surveys (pre-acquisition surveys).

The process of investigating a parcel of land before acquiring it is considered due diligence. This includes costs for appraisal, preliminary title, boundary surveys, hazardous material assessment[7], and legal description. The model assumes that 25% more parcels will be investigated than will be acquired.

As described in Chapters 5 and 8, pre-acquisition assessments will be required to determine the biological value of any land considered for inclusion in the Habitat Plan Reserve System. Pre-acquisition assessments include surveys for the following characterizations.

- Land cover type.
- Covered species habitat.
- Covered plant occurrences.
- Wetlands and streams (i.e., wetland delineations).
- Covered wildlife populations.
- Landscape linkages and ecosystem functions.

The model estimates the cost of pre-acquisition surveys based on the estimated number of hours per 100 acres required for each type of survey and the cost per hour, including travel costs, for consulting biologists to conduct the surveys.

Land transaction costs are expected only during the first 45 years of the permit term of the Habitat Plan. Land transaction costs will end once the Reserve System has been fully assembled before Year 45 of the permit term.

9.3.2 Reserve Management and Maintenance (Including Adaptive Management)

Once lands have been acquired, the Habitat Plan sets out a program to ensure that the reserves are managed to achieve the biological goals and objectives identified in Chapter 5. Support for reserve management and maintenance must be

[7] A *Phase 1 Site Assessment* is a preliminary investigation to determine if a site might contain hazardous materials. Sites with hazardous materials will be evaluated for potential cleanup; these costs will be weighed against the effect on the Reserve System design should the site not be protected, and a determination will be made whether the site should still be acquired. For costing purposes, it is assumed that sites with positive Phase 2 Assessment results (i.e., sites that may contain hazardous materials) will not be added to the Habitat Plan Reserve System because hazardous material cleanup would be required (sites with hazardous materials with legal mandates for cleanup may still be acquired if they support valuable or unique biological resources).

sufficient to cover the ongoing management and maintenance needs of the Reserve System. These activities are estimated to be $95,360,000 over the term of the permit, or an average of about $1,910,000 annually during the permit term (**Table 9-1**). The estimated cost to manage the Reserve System relied on the size of the Reserve System, the number of Implementing Entity staff (or contract equivalent), and the time period of the permit term. Accordingly, these costs are expected to increase with the size of the Reserve System. However, costs will not grow directly in proportion to the size of the Reserve System because per-acre management costs are expected to eventually decrease due to efficiencies of scale. **Table 9-3** provides a summary of the per acre cost of reserve management and monitoring activities over the permit term. Costs estimates related to management and maintenance activities include those listed below.

- Reserve System staff.
- Purchase of passenger and maintenance vehicles, vehicle repair, and fuel (vehicle insurance is included in Program Administration).
- Leasing vehicles or heavy equipment.
- Construction, maintenance, and operation of field facilities (e.g., workshops) and associated equipment.
- Pre-construction surveys for construction of field facilities.
- Purchase of management equipment and materials (e.g., hand-held tools, safety equipment, irrigation supplies, construction materials, etc.).
- Construction and operation of wells and water pumping facilities.
- Habitat enhancement of all natural communities within the Reserve System, focused on improving conditions for the covered species.
- Invasive species control (e.g., use of herbicides or grazing).
- Enhancement of covered plant occurrences.
- Conservation actions specific to western burrowing owl.
- Maintenance of ponds (e.g., dam repair, dredging).
- Adaptive management, including staff time to evaluate the results of monitoring and external research to determine the effectiveness of reserve management. These costs include staff time and equipment needed to adjust management prescriptions to respond to the changing needs of the species and natural communities in the Reserve System as well as implementation of management actions within the adaptive management framework.
- Developing or maintaining grazing infrastructure for conservation actions, including grazing fences, leases, etc.
- Development of reserve unit management plans for each reserve unit (defined in Chapter 5).
- Construction and maintenance of facilities (e.g., fencing, gates, roads, bridges, culverts) and planning activities.
- Environmental compliance requirements (described below).

- Remedial measures for changed circumstances (described below).

Management activities may be implemented by the Implementing Entity, Local Partner staff, contractors, landowners, or other third parties. Management activities will be undertaken as efficiently as possible given existing constraints. For example, while herbicide application is permitted under the Plan, the County's IPM Ordinance restricts such use. As such, flexibility in how certain management techniques are applied may be limited (depending on the plant species, grazing or prescribed fire may be more cost-effective alternatives).

Adaptive management and maintenance activities within the Reserve System will include any change in the management and maintenance of the Reserve System necessary to meet the goals and objectives described in Chapter 5. These changes will be informed by monitoring described in Chapter 7. Adaptive management and maintenance could include, but are not limited to, enhancement of the permit area through planting, salvage of plants and replanting in a reserve, seed collection for storage in a seed bank, seed bank fees to establish and maintain seed banks, and providing onsite assistance to and oversight of contractors.

As currently designed, the adaptive management decision-making process will be part of the regular duties of Implementing Entity staff. Therefore, costs associated with adaptive management except for external scientific review were assumed to be part of the capital and operational costs of reserve management, including staff time devoted to reserve management.

Reserve management and maintenance employees will have access to the office space of the Habitat Plan Reserve System (covered under the program administration cost category), but their primary office space is assumed to be a field facility. Field facilities are small buildings that will house workshop space, equipment, a manager's office, a shared office for field staff, a locker room, and restrooms. Field facilities also include secure covered parking for maintenance vehicles. The cost for constructing and maintaining the facilities and parking areas is included in the maintenance and management category. The number of field facilities in operation is based on the size of the Reserve System. The estimated cost per year for field facility maintenance and utilities is included for each facility.

Management and maintenance vehicles purchased by the Implementing Entity include four-wheel-drive trucks, all-terrain vehicles (ATV), and ATV trailers. Vehicle and fuel costs are based on the number of each type of vehicle purchased and retired during each 5-year period, the purchase price of each type of vehicle, and fuel and maintenance costs per each type of vehicle per year. Costs are also assumed for renting large equipment as needed including small tractors, loaders, flails, larger tractors, dump trucks, and fire trucks.

The cost for maintenance equipment and materials is based on the estimated cost of equipment and materials per 1,000 acres of reserve per year and the area of reserve in each 5-year period. Maintenance equipment and supplies include but are not limited to hardware, weed control (whips, mowers, flail, herbicide sprayers, seeders), firefighting equipment (e.g., fire pumper, backpack pump,

hand tools), small tools, safety equipment, raingear, small pumps, generators, saws, demolition hammers, cargo containers, water pipes, irrigation supplies, landscape plants, fencing materials (grazing infrastructure), and lumber.

Water will be pumped into existing stock ponds as needed to maintain water levels for their habitat value for covered species and native biological diversity[8]. It is assumed that wells will need to be drilled and pumps will need to be purchased. Water costs are based on the estimated annual cost for well drilling and water pumping per 1,000 reserve acres and the total amount of reserve area in each 5-year period.

Contractors and landowners are expected to be needed for many of the reserve management tasks including but not limited to the following.

- Development of reserve unit management plans.
- Road and bridge construction, maintenance and repair.
- Pond maintenance.
- Major or specialized invasive species management (e.g., pig control, large infestations of yellow-star thistle).
- Preconstruction surveys required in Chapter 6 for management actions that disturb soil (e.g., field facility construction, new fencing).
- Large-scale mowing for fire breaks.
- Fence maintenance and repair.
- Alarm installation and maintenance at field offices.

Involvement of contractors in management planning will likely be higher in the first 5 years of Habitat Plan implementation due to the time required to hire and train Implementing Entity staff and the need for many management plans early in implementation. Implementing Entity staff will be expected to assume most of the management planning work by Years 6–10. Contractor costs are based on the annual amount estimated to be expended for each type of contractor per 1,000 reserve acres and the total amount of reserve area in each 5-year period.

Reserve management and maintenance will be required in perpetuity, although at a somewhat lower level than during the permit term.

Environmental Compliance

Reserve management activities must comply with environmental requirements as described in Chapter 8 *Plan Implementation*. Additional environmental compliance will be needed during implementation for certain land management

[8] Constructed ponds will be sited to minimize their need for supplemental water. Reserve System ponds will be constructed outside of the 100-year flood plain. Existing ponds that provide breeding habitat for covered species, if not sited properly, may need supplemental water to be maintained.

and restoration activities within and outside Habitat Plan reserves. Estimated costs are based on average costs for contracting the preparation and submittal of compliance documents and permit applications. Environmental compliance costs are assumed to include compliance with NEPA and CEQA, Sections 401 and 404 of the Clean Water Act (CWA), Section 106 of the National Historic Preservation Act (NHPA), Sections 1600–1607 of the California Fish and Game Code, and other miscellaneous requirements (e.g., county grading permits, road encroachment permits, stormwater pollution prevention plans). Most CEQA and NEPA compliance costs are expected to be addressed by the EIR/EIS for the Habitat Plan. However, additional CEQA or NEPA review may be required for some projects.

Environmental compliance costs are assumed to vary with the type of compliance and the size and complexity of the project. For purposes of cost estimation, Habitat Plan projects are divided into three size/complexity categories.

- Small/simple (up to 10 acres or up to 0.1 stream mile).
- Medium /moderately complex (10.1–50 acres or 0.1–0.5 stream mile).
- Large/most complex (more than 50 acres or 0.5 stream mile).

It is assumed that Section 404 CWA, Section 401 CWA, and Section 1602 California Fish and Game Code permits will be procured on a per-project basis. Because these costs are generally associated with restoration activities, compliance costs for jurisdictional waters impacts are included in *Habitat Restoration, Creation, and Covered Plant Occurrence Creation* described below. NHPA compliance is assumed to cover cultural resource inventory only when needed for projects with a federal nexus (e.g., Clean Water Act Section 404 permits). If significant cultural resources are found at a location subject to disturbance by management, restoration, or other Plan activities, the Plan activities will be relocated.

All environmental compliance costs are expected to be incurred during the permit term because they are associated with initial reserve management actions and habitat restoration/creation projects. Few environmental compliance costs are expected after Year 40 because construction of all restoration/creation projects will be completed by then. The environmental compliance costs of covered activities unrelated to conservation actions will be borne by the applicants and are not included in this cost estimate.

Remedial Measures for Changed Circumstances

Remedial measure costs are estimated to address the reserve management response to changed circumstances (see Chapter 10 *Assurances* for a description of all changed circumstances and remedial measures). The cost estimate for remedial measures was assumed to be an additional 10% of the operational costs allocated for management activities on reserve lands. Actual allocations for remedial measures will be adjusted each year based on the inflation factors

described in Section 9.4.1 *Habitat Plan Development Fees* subheading *Adjustment of Mitigation Fees*.

The Implementing Entity will maintain sufficient financial reserves to fund remedial actions described in Chapter 10 when they arise. Starting in Year 5 of implementation[9], the Implementing Entity will annually assess its funding reserves and supplement those reserves in order to fund implementation of the most expensive remedial actions that might occur in the coming 5 years, based on historic events and frequency. Funds used to supplement these financial reserves could come from outside the Implementing Entity or from within the Implementing Entity budget (i.e., funds shifted from other Habitat Plan uses). This approach will ensure that adequate funds are available immediately in the event of a changed circumstance occurring.

Annual funding for remedial measures would accrue each year and annual funding for remedial measures would grow each year in proportion of the size of the Reserve System. The combination of these two factors will lead to substantial remedial measures funding reserves generated later in the permit term. Changed circumstances described in Chapter 10 are more likely to occur on a larger scale later in the permit term due to the greater size of the Reserve System and the expected effects of climate change.

As described in Chapter 10, the Implementing Entity is required to implement remedial action if any of the changed circumstances occur. The cost assumptions are made for planning purposes and will not limit the Implementing Entity's obligation to respond to these changed circumstances. Remedial measures for the Reserve System are not required after the permit term so these costs are assumed to apply only during the permit term.

Recreation

Recreation is not a requirement of the ESA or NCCP Act. Any recreation activities within the Reserves System will be funded by non-fee funding sources and, as such, potential costs are not reflected in the cost model. However, recreation elements for the Reserve System could include the following.

- Developing or reviewing and integrating recreation sections for each of the five reserve unit management plans (for each of the expected five reserve units).
- Constructing recreational facilities including trailhead parking areas and access roads, kiosks, gates, signage, picnic sites, emergency phones, restrooms, and multi-use trails.
- Maintaining recreational facilities.

[9] Year 5 is identified as the starting point to ensure adequate funds for remedial measures have accumulated before this time.

However, the Plan includes costs associated with public access as related to law enforcement, such as managing visitor interface with resource management areas, ensuring public safety (see Section 9.3.5, *Program Administration* subheading *Law Enforcement for Public Access*), and fire protection/suppression.

9.3.3 Habitat Restoration, Creation, and Covered Plant Occurrence Creation

Habitat restoration and covered plant occurrence creation costs are estimated to be $92,630,000 over the permit period, on average, $1,850,000, annually during the permit term (**Table 9-1**). The budget covers activities listed below.

- The cost of identifying and prioritizing potential restoration and creation sites.
- Design of restoration/creation projects.
- Development of plans, specifications, and engineering documents.
- Bid assistance.
- Pre-construction surveys for projects within the Reserve System.
- Environmental compliance (covers permitting for impacts to federal and state jurisdictional waters, and streambed alteration agreements).
- Construction within the Reserve System.
- Construction oversight and monitoring within the Reserve System.
- Post-construction monitoring and maintenance.
- Restoration and creation repair necessary to meet success criteria specified in each reserve unit management plan (monitoring component) and site restoration plans.
- Costs associated with using contractors to assist or do any of the restoration/creation components identified in the bullets above.
- Costs associated with the habitat restoration/creation employees.
- Monitoring and maintenance during and after the permit term.
- Contingency of 15% to account for the greater uncertainty in these costs (contingency costs for restoration and creation actions are independent of, and higher than, costs assumed for the general contingency fund described below in Section 9.3.6 *Contingency*).

Enhancement costs are accounted for above in Section 9.3.2 *Reserve Management and Maintenance (Including Adaptive Management)*. The land cover types that will be restored or created under the Habitat Plan are willow riparian forest and scrub, mixed riparian forest and woodland, Central California sycamore alluvial woodland, coastal and valley freshwater marsh, seasonal wetland, ponds, and streams. **Table 5-16** describes plant occurrences that will be created within the Reserve System. The cost is developed for each 5-year period

based on the area of each land cover type that is estimated to be restored during that period. For planning purposes, the pace of restoration is assumed to be constant during the permit term. The actual pace of restoration and creation activities of the land cover types listed above will comply with the Stay Ahead Provision described in Chapter 8 and the interim timing requirements described in **Table 5-14**. Restoration and creation requirements for covered plants species will always occur prior to impacts, except for the Coyote ceanothus (see Chapter 5, Section 5.4 *Benefits of and Additional Conservation Actions for Covered Species*).

Costs for restoration repair include the costs to replant restoration sites in the event that plantings fail due to site conditions, human error, animal browsing, or other factors. These costs are calculated as 15% of the cost to construct an acre or linear foot for each land cover type[10]. Restoration repair costs are assumed to be unnecessary once the performance standards are met. Restoration repair costs do not include costs associated with remedial measures for changed circumstances, which apply to the destruction of restoration sites from foreseeable natural disasters such as flooding and drought (see Chapter 10). Costs associated with remedial measures to deal with changed circumstances are described below in Section 9.3.2 *Reserve Management and Maintenance (Including Adaptive Management)* subheading *Remedial Measures for Changed Circumstances*.

It is expected that contractors will be hired to construct all but the smallest habitat restoration or creation projects due to the specialized equipment, plant propagation, and planting techniques needed. For large-scale projects, a great deal of labor is typically required (e.g., planting seedlings, cuttings, or container stock for riparian or oak savanna restoration projects), which only a contractor can provide. In addition, it is expected that contractors will be hired to design restoration/creation projects, create restoration/creation plans and specifications, assist with construction bids, conduct pre-construction surveys, oversee the construction of habitat restoration/creation projects, and conduct post-construction monitoring and maintenance. Contractor costs are based on the estimated contract value for each type of contract work for each 5-year period. Staff time, equipment, and vehicles for the Implementing Entity are included in this cost category to account for the time needed to hire and oversee contractor designs, specification, and construction.

Construction of all habitat restoration/creation projects will be completed by Year 40 but restoration costs will be incurred throughout the permit term.

[10] This percentage is based on the assumptions that restoration repairs will be needed on a minority of restoration projects, and these repairs will be substantially less expensive than the original construction costs. Additional contingency funds (see Section 9.3.6) could also be used to repair restoration projects, if necessary.

9.3.4 Monitoring, Research, and Scientific Review

Monitoring, directed research, and scientific review costs are estimated to be over $30,230,000 over the permit term and on average, $600,000 annually (**Table 9-1**). Like management costs, monitoring costs were estimated to increase as the Reserve System grows. Per-acre monitoring costs were developed to account for an eventual reduction in cost once staff becomes well trained, protocols are well established, and efficiencies of scale are achieved. Monitoring costs in the first two periods (Years 1 through 10) were relatively larger to account for extra time needed for training staff and working out the details of the monitoring program (e.g., variables measured, monitoring protocols, field equipment, field forms, data analysis, etc.).

The costs of monitoring restoration projects are not included in this cost category so that all restoration costs are reflected in one cost category (and fees on wetland impacts can be more easily calculated). See Section 9.3.3 *Habitat Restoration and Covered Plant Occurrence Creation* above for a description of these unique monitoring tasks and costs.

Monitoring, directed research, and scientific review are described fully in Chapter 7 and **Appendix J**. Monitoring, directed research, and scientific review costs cover the following items.

- Costs associated with Implementing Entity staff conducting some monitoring, directed research, and scientific review.
- Planning, conducting, analyzing, and reporting on monitoring of ecosystems, natural communities, and covered species within the study area.
- Planning, conducting, analyzing, and reporting on monitoring the effectiveness of conservation measures (the cost of monitoring habitat restoration/creation projects is included in the habitat restoration category).
- Monitoring the status of impacted plant occurrences (Chapter 6, Section 6.6.2, subheading *Condition 19 Plant Salvage when Impacts are Unavoidable*).
- California tiger salamander hybridization studies.
- Western burrowing owl population surveys (every 3 years) and other related monitoring.
- Research directed at management and conservation needs of the Reserve System.
- Stipends for Science Advisors and the Independent Conservation Assessment Team in scientific review and meetings.

It is assumed that Implementing Entity employees conducting monitoring, directed research, and scientific review will plan, coordinate, and report on Habitat Plan monitoring. It is assumed that contractors will collect, document, and analyze monitoring data. Contractor costs for collecting monitoring data are based on the estimated number of hours per acre required for each type of

monitoring, the area that will be covered by each type of monitoring in each 5-year period, and the cost per hour for contracting biologists to conduct the monitoring (the cost per hour includes travel costs for the contractors).

Most monitoring and research is expected to occur on the Reserve System, including existing open space identified in Chapter 5 that will be incorporated into the Reserve System. However, some monitoring and research will occur outside the Reserve System in order to achieve the goals of the monitoring program described in Chapter 7. Monitoring costs include a limited amount of monitoring that would occur off the reserves (e.g., along streams and on other public lands to support status and trend monitoring).

Scientific review costs include costs related to scientists serving on the Independent Conservation Assessment Team and scientists providing advice to the Implementing Entity throughout the permit term (see Chapter 7). The Independent Conservation Assessment team is assumed to meet once every five years and a stipend for each of the five members is included in the cost model. An annual stipend for an assumed eight scientists is also included. Stipends for scientists include travel costs. The cost of adaptive management experiments is covered under the cost for directed research and monitoring. The cost of implementing the results of adaptive management recommendations is assumed in the overall cost of reserve management.

All research costs and most monitoring costs are assumed to occur during the permit term. Some monitoring tasks will be required in perpetuity (see Section 9.3.7 *Costs in Perpetuity* for details).

9.3.5 Program Administration

Program administration costs are the overhead or indirect costs to support employees, facilities, equipment, and vehicles needed by the Implementing Entity to carry out Habitat Plan requirements. Program administration also includes estimated costs for insurance, legal and financial assistance, law enforcement and firefighting paid to the County and other land management agencies (e.g., County Sheriff, CalFire), and public outreach and education. Program administration costs are estimated to be $920,000 annually during the permit term (**Table 9-1**). Some program administration costs will be necessary beyond the permit term.

Cost savings in program administration may be realized by partnering with existing land management agencies that already have staff with the required qualifications and have the infrastructure to hire and manage such staff. However, for estimating purposes it is assumed that the Implementing Entity will hire and manage its own staff in its own facilities. This assumption ensures that potential costs of staffing and program administration are not understated.

Administrative costs incurred by Permittees other than the Implementing Entity to fulfill their own responsibilities under the Habitat Plan are not included in the cost

estimates. For example, each Local Partner will incur costs when reviewing applications for take authorization from various project proponents (see Chapter 6, Section 6.3 *Conditions on All Covered Activities*). The participating cities and the County might recover these costs from applicants according to the policies in place at each local jurisdiction. The fee amounts specified in the Plan do not reflect the costs of application review by the local jurisdictions, and revenues from the Habitat Plan fees will not be used to cover these costs. Similarly, the cost of all conditions on covered activities described in Chapter 6 will be borne by the project proponents, either public agencies or private developers.

Staff

Much of the work identified for staff positions may be accomplished by contract resources including contracts with some of the Permittees, non-profit agencies, landowners, or private entities, especially in the early phase of Plan implementation. It is assumed that the Implementing Entity will have an Administrative Director that can function both as an organizational leader and public presence of the implementation effort. It is assumed that data management and analysis, including GIS work, will be contracted to one of the Local Partners or consultants.

Up to 10.5 staff positions are identified in the cost model for the Implementing Entity. Staffing levels at the Implementing Entity will increase slowly over time as the Reserve System grows and responsibilities increase. Staff positions address administrative needs of the program as well as non-administrative needs of the Reserve System. Other staffing mixes could be used by the Implementing Entity to fulfill the obligations of the Plan; the staffing mix described below was used only for the purposes of the cost analysis.

For the purposes of the cost estimate, it is assumed that the following positions will be staffed as administrative personnel within the Implementing Entity according to the roles described in Chapter 8 *Plan Implementation*: an Administrative Director, a Budget Analyst, a Grant Specialist, a Public Education and Outreach Coordinator, and Administrative Staff (some staff are part-time). These positions are proposed for the type of role that will be required to support implementation of the Plan, but the actual staff hired may not exactly correspond to this proposal. The cost-estimates for administrative staff is almost entirely covered in the Program Administration cost category (the assistant position is shared with Reserve Management and Maintenance). Costs for non-administrative personnel in the positions of Reserve Manager/Senior Scientist, Project Manager/Conservation Planner[11], and Field Staff are shared between the program administration, reserve management and maintenance, habitat restoration/creation, and monitoring, research, and scientific review cost

[11] The Project Manager will be managing and coordinating all habitat restoration and creation projects, developing and overseeing contracts and bids, and assisting with Wildlife Agency coordination. Field Staff will be conducting some of the field work necessary to operate the reserve, including conducting management actions, conducting or overseeing monitoring, and assisting with restoration projects.

categories. Staff costs for the Reserve Manager/Senior Scientist[12] are entirely accounted for under the Reserve Management cost category (see Section 9.3.2 *Reserve Management and Maintenance (Including Adaptive Management)* for more detail).

Office Space and Associated Costs

All costs associated with general office operations are accounted for under the program administration category. General office costs include office space and utilities, office equipment including copy and fax machines, an office telephone system, printers, scanners, publications, digital cameras, and a radio base station.

Staff and Associated Costs

Staff-specific costs include employee salaries; benefits (identified by a salary multiplier of 35% to include the cost of benefits such as health insurance, payroll taxes, retirement plan, worker's compensation, disability, and life insurance); computers; office furniture; office supplies; cell phones; portable radios; and training. A mileage allowance is provided for all staff. This allowance is based on a mileage allowance per employee per year and cost per mile. Travel costs are based on days of travel per year and per diem allowance per employee.

Insurance

Insurance costs are an important part of program administration. Insurance costs were included for auto insurance for all Implementing Entity vehicles as well as for professional insurance for the Governing Board members (often known as "directors' and officers' insurance"), general liability insurance to cover public recreational use within Habitat Plan reserves, and professional liability insurance for Implementing Entity staff.

Legal and Financial Assistance

The Implementing Entity will require legal and financial assistance during implementation. Legal resources will be needed to draft and review conservation easements, finalize land purchases, assist with negotiations, and assist with easement violations if they occur. Financial assistance will also be periodically required to review the program's cost/revenue balance and ensure that Habitat Plan fees are adjusted in line with changing land costs and inflation. Legal costs are based on the billing rate for legal contractors and the estimated time contracted per 5-year period; financial analyst costs are based on the estimated cost for financial analysis services per 5-year period. Attorneys and financial

[12] The Reserve Manager/Senior Scientist will be responsible for overall management of all reserve lands.

analysts with each local jurisdiction are expected to provide some support to the Implementing Entity.

Law Enforcement for Public Access

The Habitat Plan Reserve System will increase the need for law enforcement services in Santa Clara County because of the visitor use of the new reserves. To address this impact, the Implementing Entity will pay to cover reserve-related public safety costs on an annual basis. The number of police officers, park rangers, deputies, or peace officers funded per 5-year period is based on the total area projected to constitute designated reserves during the specified period and the predetermined areal extent of reserve that will require the funding of one peace officer.

Public Outreach and Involvement

The Plan includes an annual budget for the production of education materials that may include brochures; doing mailings; holding special events (e.g., groundbreakings and dedications, volunteer appreciation functions); managing volunteer groups; and otherwise involving the public in the implementation of the Habitat Plan. It is anticipated that a volunteer group of docents will be trained early in Plan implementation and that this group will lead reserve tours and conduct educational/interpretive programs. In addition, the staffing plan includes one part-time education and outreach coordinator to design and manage the outreach program (see Chapter 5 for details of this program).

9.3.6 Contingency

To account for uncertainties in costs, a contingency of 3% is included in the model for all costs exclusive of restoration/creation. The contingency fund will be used on a short-term basis to offset any program costs that are higher than predicted by this Plan. Contingency funds are modest because Habitat Plan fees are designed to keep pace with rising Plan costs, particularly for land acquisition (see *Development Fees* below). Contingency funds will be used only when needed to address costs beyond those predicted in this cost estimate and in annual budgets of the Implementing Entity. Contingency funds could be used for:

- buying new or repairing existing equipment,
- acquiring materials not forecast in the budgets,
- adding temporary staff to address new issues,
- acquiring land that is more expensive than planned,
- applying more expensive management techniques in response to adaptive management needs,

- conducting additional monitoring,
- addressing unforeseen administrative costs, or
- other uses.

Adaptive management needs may arise throughout the permit term in response to monitoring results or external data that dictates shifts in management techniques and protocols. Costs for routine adaptive management needs are included in the *Reserve Management and Maintenance* cost category. Additional management needs could be addressed through contingency funding. Contingency funding will generally be used to pay for expected management that simply costs more than budgeted, or for minor adjustments in management that result in higher costs. Because this contingency budget will accrue over time, it is expected to be adequate to supplement the adaptive management budget described above in Section 9.3.2 if necessary. It could also be used to fund other Plan needs.

Contingency costs are assumed to be needed only during the permit term because some Plan costs will disappear (e.g., research) and other costs will drop substantially after the permit term.

9.3.7 Costs in Perpetuity

As described above, some costs are expected to be incurred only during the permit term (acquisition, restoration, environmental compliance, remedial measures, and contingency), while others can be expected after the permit term. Because most of the impacts of the covered activities are permanent (see Chapter 4), many of the conservation actions must be implemented permanently. For example, land acquired for the Reserve System must continue to be managed beyond the permit term to ensure that it retains the biological values enhanced during the permit term. Similarly monitoring must continue beyond the permit term to ensure that management actions are effective.

Overall, annual costs beyond the permit term would be about 61% of average annual costs in the final years of the permit term (**Table 9-4**). Many reserve management activities continue beyond the permit term but capital costs for construction services would be eliminated and management planning would be reduced. The costs for directed research, scientific review, and monitoring plans would be eliminated and on-going biological monitoring costs would be at about one-third the level attained by the end of the permit term. Staffing would be reduced from 10.5 FTE to 4.5 FTE beyond the permit term. Estimated annual costs in perpetuity are shown in **Table 9-4**. **Appendix G** describes the assumptions used to estimate these costs.

The funding mechanisms and responsibility for funding costs in perpetuity are discussed under Section 9.4.4 *Funding Adequacy* subheading *Funding for Post-Permit Management and Monitoring*.

9.4 Funding Sources and Assurances

Methods for assembling and equitably distributing the costs associated with the Habitat Plan have been the subject of extensive discussion and consideration by members of the public; officials from local, state, and federal agencies; and elected officials. The Habitat Plan, which incorporates the input from this diverse group, offers a balanced approach to conserving species and habitats while equitably distributing the costs.

The Habitat Plan establishes a framework for compliance with state and federal endangered species laws and regulations that accommodates future growth in the study area. Without the Habitat Plan, public and private entities whose activities would affect declining species and their habitats would be required to obtain permits and approvals from USFWS and CDFG before undertaking those activities to mitigate the impacts of their activities on the affected species. To comply with the NCCP Act and thereby obtain necessary permits under CESA, the Habitat Plan also provides for contribution to the recovery ("conservation") of the covered species. Proponents of private and public development activities will benefit from this comprehensive approach in several ways: they will be assured of take coverage; they will avoid the time and expense of securing their own regulatory approvals; and they will have certainty and predictability with respect to their permit obligations. Consequently, the mitigation fees imposed to implement the Habitat Plan include some of the costs associated with the conservation activities. However, because a variety of groups will directly benefit from the Habitat Plan, those groups will also share in the responsibility for funding and otherwise implementing the Habitat Plan. This shared responsibility includes all of the costs associated with Plan implementation described in Section 9.3 *Cost Estimate Methodology*. Therefore, the term "mitigation" does not only refer to Federal mitigation requirements under the Habitat Plan. See Section 9.4.3 *State and Federal Funding* for more discussion regarding funding under the Section 6 program.

Plan funding will come from a number of different sources, which fall into one of several categories.

- **Habitat Plan Fees and Land Dedication.** This source includes private and public sector development impact fees and land dedications. Fees are also charged on specialized impacts such as wetlands (wetland fee) and temporary effects (temporary impact fee).
- **Local Funding.** Land in lieu of fees and non-fee local funding will complement fee-based funding sources. County Parks and some Participating Special Entities, including the Open Space Authority, will provide land (in fee or subject to conservation easements) in lieu of fees[13]. These lands that are contributed in lieu of fees count toward the mitigation component of the Plan. Non-fee local funding will take many forms,

[13] County Parks would be able to contribute land in lieu of fees as long as there is an assured funding source such as the Park Charter Fund. If the Park Charter is not renewed, this local funding source would not be available for land acquisition.

including continued and new investments in conservation actions and land acquisition by organizations such as County Parks, the Open Space Authority, SCVWD, and local land trusts that are consistent with the Plan. Additional funding is also expected from local foundations. These non-fee local funding sources (i.e., lands that are not contributed in lieu of fees) cannot be used for mitigation purposes and will be directed towards the NCCP portion of the Plan (i.e., contribution to recovery).

- **State and Federal Funding.** This source includes federal and state grant programs (e.g., USFWS grants under Section 6 of the ESA, Wildlife Conservation Board grants, and state bonds). Some of these funding sources are generally available throughout the state and nation, while others can only be used to implement an approved HCP or NCCP. State and federal funding can only be used for portions of the Plan that contribute to species recovery (not for mitigation), unless a state agency seeks permit coverage under the HCP as a Participating Special Entity (see Section 8.4 *Participating Special Entities*).
- **Interest Income.** The Implementing Entity is expected to gain limited income from interest on revenue not yet spent, plus more substantial revenue from interest on the endowment as it grows prior to its use to fund costs in perpetuity after the 50-year permit term.

Table 9-5 summarizes the expected revenues and their sources over the permit term. Development fee funding will contribute to mitigation of impacts while non-fee funding from local, state, and federal sources will contribute to the conservation needs of the Plan (i.e., the contribution to species recovery). Each funding source is described below. Additional information on funding is provided in the *Santa Clara Valley Habitat Plan Develop Fee Nexus Study* (*Development Fee Nexus Study*) prepared by Willdan Financial Services and Urban Economics.

9.4.1 Habitat Plan Development Fees

This Plan utilizes a variety of private and public development-based fees to fund mitigation that will offset losses of land cover types, covered species habitat, and other biological values. These one-time fees pay for the full cost of mitigating project effects on the covered species and natural communities. Once paid, applicants do not need to find their own mitigation to satisfy state and federal endangered species laws. In addition, these fees should also satisfy all or most of the CEQA mitigation needs for biological resources, as discussed in Chapter 1.

Fees are based largely on the estimated permanent and temporary impacts to land cover types shown in **Tables 4-2 and 4-3**. Land cover impacts are used because land cover is the best predictor of potential species habitat and is applicable to all of the covered species (see Chapter 3, **Tables 3-5 and 3-6**, and the species accounts in **Appendix D**). Impacts to land cover are also used, in part, as the basis of the conservation strategy (see Chapter 5 for details). The following Habitat Plan development fees (development fees) are discussed below.

- Land Cover Fee.
- Endowment Fee Component.
- Plan Preparation Cost Recovery Fee Component.
- Nitrogen Deposition Fee.
- Serpentine Fee.
- Burrowing Owl Fee.
- Wetland Fee.
- Temporary Impact Fee.

This section also describes the process and timing for collecting fees and how fees are adjusted over time.

The following section describes the Habitat Plan development fees, the areas over which they are applied, and how they are calculated. The underlying analysis for the development fee calculations is provided in the *Development Fee Nexus Study*. The development fees used to fund the Plan are summarized in **Table 9-6**. This section also describes the process and timing for collecting fees and how fees are adjusted over time. The Implementing Entity will comply with all applicable provisions of the Mitigation Fee Act as to the deposit, accounting, expenditure and reporting of such fee revenues and any other applicable legal requirements. Exemptions to the fees are described in the following subsections.

Projects or Activities Not Covered by the Plan

Projects or activities not covered by the Habitat Plan do not pay Habitat Plan development fees. See Chapter 2, Section 2.4 for a list of activities not covered by the Plan. In summary, these non-covered activities including the following:

- Existing development at the time of Plan adoption. These areas are considered developed for the purposes of this Plan and are not the focus of conservation actions for natural communities and covered species.
- Private sector activities that do not require a permit from a local jurisdiction as described in Chapter 2.
- Lot line adjustments (this is not covered by the Plan because it results in no impacts to covered species).
- Activities that are excluded from coverage because they do not meet the criteria in Chapter 2, Section 2.3.2, subheading *Private Development Coverage Areas*. These non-covered projects may opt into the Plan at the discretion of the local jurisdiction in consultation with the Implementing Entity.
- Projects for which a project proponent provides written confirmation to the Implementing Entity that the CDFG and USFWS have determined that the activity is not subject to CESA and ESA; or has already received the

necessary take authorizations under CESA and ESA; or has otherwise complied with CESA and ESA. An activity will be deemed to be in compliance with CESA and ESA by the Implementing Entity and thus be exempt from the conditions in Chapter 6 and otherwise comply with the Habitat Plan if the proponent provides the following:

1. Letters from both USFWS and CDFG that specifically refer to the activity and state that the activity is not likely to result in take of any federal or state listed species and will not preclude successful implementation of the conservation strategy for all covered species, or
2. A copy of an incidental take permit issued by CDFG for the activity, and copies of incidental take statements or incidental take permits issued by USFWS that authorize the incidental task associated with the proposed activity.

Exemptions from Development Fees

All development that occurs on land mapped by the Habitat Plan as "urban-suburban", "landfill", "reservoir", or "agriculture developed" land cover types (see Chapter 3 for land cover type descriptions) is exempt from development fees[14], with the exception of the nitrogen deposition fee and burrowing owl fee, if it is not located in or adjacent to a parcel that contains a stream, riparian woodland or forest, wetland, pond, or serpentine. If new vehicle trips are generated, the nitrogen deposition fee described below may be assessed (**Table 9-7b**). These impacts are not tracked or reported by the Implementing Entity.

The category "reservoir" excludes dams, which are subject to Habitat Plan fees. Barns, corrals, ranch homes, and other small patches of existing development were not mapped as these four exempt land cover types because they fell below the 10-acre minimum mapping unit. These sites would also be exempt from the same development fees and not tracked or reported by the Implementing Entity as long as project proponents demonstrate that they were existing at the time of Plan adoption through air photos or other documentation.

Similarly, implementation of conservation actions described in Chapter 5 (or otherwise consistent with the Plan's conservation strategy) in or outside the Reserve System are not charged development fees. They will however be tracked as impacts by the Implementing Entity and reported as supporting the conservation strategy. Most of the adverse effects associated with the implementation of conservation actions are considered temporary.

[14] Some lands inside the planning limit of urban growth have already been approved for development by local land use agencies. These sites are subject to the Habitat Plan development fee if land use approval is still required. However, as described in Chapter 4, these lands were not included in the impact analysis. Similarly, for the purposes of the revenue estimates, Habitat Plan fees were not assumed to be collected on these sites.

The following covered activities are also exempt from Habitat Plan development fees but are tracked as impacts, count towards the Stay-Ahead requirement, and are reported by the Implementing Entity:

- Urban development covered activities (see Section 2.3.2 *Urban Development* in Chapter 2) in Zones A, B, or C (see Zone definitions below) on parcels less than 0.5 acre as long as the parcel does not contain or is not adjacent to a stream, riparian woodland or forest, wetland, pond, or serpentine.
- Additions to existing structures or new structures that are within 50 feet of an existing structure (e.g., a new garage) that result in less than 5,000 square feet of impervious surface as long as no stream, riparian, wetland, pond, or serpentine land cover types are affected. Expansion is measured based on the existing structure's footprint at the time of Plan commencement. Subsequent additions must be added to the original amount to determine whether this threshold has been crossed.
- Construction of recreational facilities within the Reserve System[15].

All of these activities exempt from the development fees are still covered by the permits. These exemptions from development fees overlap with the exemptions from conditions on covered activities described in Section 6.2 *Exemptions from Conditions*. Differences arise in some cases where fees will be paid but the covered activity does not have to conduct any or all surveys (see **Table 6-1**).

A verified land cover map (see Section 6.8.2 *Item 2: Project Description and Map*) and the Fee Zone map (described below) included in the final Habitat Plan will be used to determine which areas are not subject to the land cover fee. If a project proponent or a Permittee wishes to contest the mapped extent of the exempt land cover types on a parcel or project site, the Permittee (or the Implementing Entity in the event that a Permittee contests the mapping) may consider evidence provided by the project proponent documenting the land cover type on the site prior to Plan adoption. Evidence provided by project proponents is subject to review by the local jurisdiction and the Implementing Entity in accordance with the mapping methods described in Chapter 3. Any deviations from the Habitat Plan land cover map and associated fees must be approved by the local jurisdiction and the Implementing Entity.

Determination of Development Fees

New development will pay a share of the costs of implementing the Habitat Plan consistent with mitigating the impacts of development activities.

The analysis takes into account that fees will vary to reflect the actual impact of a development project or public infrastructure project. This variation will be

[15] Instead of paying a fee for construction of infrastructure within the Reserve System, new disturbance for infrastructure does not count toward land cover type land acquisition requirements in Chapter 5, but it does count toward the total Reserve System size requirements.

applied through the use of development fee zones, as described below. The Habitat Plan development fees were established to meet the following criteria.

- Fees will assist in meeting both ESA and NCCP Act requirements.
- Fees generate sufficient funding to offset a proportionate share of Habitat Plan costs.
- Fees are consistent with the general level of biological impact associated with projects in different areas.
- Fees compare favorably with the actual or expected future cost of ESA and CESA permitting on a project-by-project basis, including the costs of uncertainty and project delays.

Land Cover Fee

The primary component of the Habitat Plan development fees is a *land cover fee*. This fee is based on the mitigation of new development's impacts on land cover types at the project site (see below for calculation methods). The basis for the land cover fee is that the primary impact to the covered species is through the direct and indirect loss or degradation of their habitat (see Chapter 4 and **Appendix D** for details on effects to each covered species). Because habitat for covered species is so closely tied to land cover types (see Chapter 3 and **Appendix D** for details), the primary component of the development fee is associated with impacts to land cover types.

Public and private covered activities are subject to the land cover fee for permanent impacts on any land cover type besides urban-suburban, landfill, reservoir, or agriculture developed (a fee for temporary impacts is described below in this section).

Land cover fees tied to the project footprint are designed to address the direct loss and degradation of covered species habitat and natural communities. This fee will vary by geographic location in the permit area, as defined by three fee zones, to account for broad geographic differences in habitat impacts.

Land Cover Fee Zones

As described in Chapter 4, impacts on covered species and natural communities vary according to whether projects occur within existing urban development, in cultivated agricultural areas (mostly in the Santa Clara Valley floor), or in natural land cover types. To account for these differences in impact, the land cover fee will vary based on project location.

Unlike the other developments fees, the land cover fee varies by location. Three *Fee Zones* are defined by a map that determines the land cover fee paid by development (**Figure 9-1**). The Fee Zone map was developed based on the land

cover mapping in the Plan. These three zones correspond to the dominant land cover types, conservation value, and open space value within each Fee Zone.

- **Zone A: Ranchland and Natural Lands[16].** Land within Zone A is strongly dominated by natural land cover types including grassland, oak woodland, and chaparral (**Figure 9-2**). Land uses in Zone A are mostly ranchland, low-density rural development, or public open space. Zone A occurs mostly outside of the Santa Clara Valley floor within the Diablo Range and the Santa Cruz Mountains and adjacent foothills. Development in this zone is expected to have, on average, greater effects on more covered species and natural communities than in other zones.
- **Zone B: Mostly Agricultural and Valley Floor Rural Residential Lands.** Zone B is strongly dominated by agricultural land cover types such as grain, row-crop, hay and irrigated pasture, disked/short term fallowed, orchards, and vineyards (**Figure 9-2**). Zone B also includes much of the rural residential land cover in the study area. Zone B occurs in the Santa Clara Valley exclusive of areas mapped by the Habitat Plan as having urban land cover types. Small adjacent valleys such as the Almaden Valley also contain small areas of Zone B. In general, covered activities that occur in this area have an effect on covered species and natural communities, but to a lesser extent than in Zone A.
- **Zone C: Small Vacant Sites.** Zone C includes specific sites that meet all of the following criteria:
  - Undeveloped sites (all land covers except urban-suburban, landfill, reservoir or agriculture developed).
  - 0.5 to 10.0 acres in size (parcels less than 0.5 acres are exempt from the land cover fee).
  - Surrounded on four sides by one or more of the following land cover types: urban-suburban, landfill, or agriculture developed.
  - Has no stream, pond, wetland, riparian, or serpentine land cover type within the site.

  Sites must meet these four criteria in order to be eligible for the Zone C fee. Similar sites that do not meet all of the four criteria above pay the Zone A or Zone B land cover fee. Development of these areas will result in loss of open space and some habitat values, but impacts will be less than those in Zone B and substantially less than those in Zone A because these areas are already surrounded by development.

Table 9-7a lists the land cover fee by Fee Zone. The land cover fee includes components for recovering the costs of preparing the Habitat Plan and for developing an endowment fund for post-permit management and monitoring costs, in addition to Habitat Plan costs during the permit term. The Plan preparation and endowment fees are described in more detail below.

[16] Fee zone names are provided only as a general guide to the dominant land cover. The fee amount will be determined solely by a parcel's location within a Fee Zone mapped on **Figure 9-1** and the verified land covers present on the site.

Parcels that span more than one Fee Zone will pay fees according to number of project acres in each zone. Prior to implementation, the Implementing Entity will provide each Permittee with detailed Fee Zone and land cover maps to allow local agency staff to process and evaluate applications for Habitat Plan coverage or evaluate their own projects under the Plan. Habitat Plan fees will be adjusted over time to account for inflation (or deflation) according to the methods described below under *Adjustment of Mitigation Fees*.

If a project is located in an area mapped as Zone A or B, the project applicant may provide sufficient information (as required in Section 6.8.3 *Item 3: Land Cover Types on Site*) for the local jurisdiction to determine that a Zone C fee is warranted, or if no land cover fee is required. The Implementing Entity may periodically update the Fee Zones (**Figure 9-1**) as necessary (e.g., when fee adjustments may occur).

Calculation Method of Land Cover Fees

The land cover fees applied in Zones A, B, and C (**Table 9-7a**) were developed to address the Plan's protection, restoration, creation, management, and monitoring costs in the Habitat Plan. The mitigation costs are divided by the projected acres of land impacts to determine the mitigation cost per acre. In the calculation of the acreage of land impacts, impacts in Zone B and C are weighted lower, relative to impacts in Zone A, reflecting the lower average habitat value of land in Zones B and C. The land cover fees for Zones B and C are based on the estimated per-acre effects of development on covered species for each zone, relative to Zone A. Per acre impacts in Zone B are weighted at 69% of impacts in Zone A. Per acre Zone C impacts are weighted at 25% of Zone A impacts.

As described below, mitigation costs per acre of impact to serpentine land cover types are higher than the mitigation cost per acre of impact to other land covers. Therefore, the additional costs of impacts to serpentine land covers are included in the nitrogen deposition and serpentine fees, and are not included in the land cover fees. The land cover fees were determined through the following steps:

1. The share of the reserve acreage that is required to mitigate development impacts was determined by applying a preservation ratio to the number of acres of each land cover type projected to be impacted by development, resulting in the acreage required for mitigation for each land cover type. Preservation ratios vary from 4.0 acres preserved for every impacted acre for the most sensitive land covers, such as serpentine land cover types, to 1.0 or less for land cover types with lower habitat value, such as ruderal or disturbed areas. The preservation ratios are consistent with previously accepted mitigation ratios for projects analyzed on a project-by-project basis outside the Habitat Plan. The share of total Plan costs (**Table 9-1**) associated with the land cover fee exclude costs associated with impacts on wetlands and burrowing owl habitat because these costs are funded by separate fees (see relevant subsections, below). The remaining amount of total Plan costs were allocated between Plan activities associated with serpentine versus non-serpentine land cover types to enable calculation of separate fees for impacts based on these two categories of land cover types.

2. After deducting for costs associated with nitrogen deposition (funded separately by the nitrogen deposition fee) and revenue from the temporary impact fee, the share of total Habitat Plan costs related to development mitigation on non-serpentine land cover types were divided by the total projected impacted acres on land cover types in Zone A, B, and C, weighted by fee zone, to determine the mitigation cost per impacted acre, at the most significant level of impact. This cost per acre is the Zone A land cover fee. The Zone B and C land cover fees are set based on the Zone A land cover fee, using the weighting factors for each zone.
3. Weighting factors for the Zone B and C fees were derived based on the relative habitat and landscape linkage values to the covered species within each zone, the proportional contribution of covered activities within each zone to direct and indirect impacts (including watershed-level effects such as impervious surfaces), and the relative cost of conservation actions within each zone.

How to Calculate the Land Cover Fee

The land cover fee is calculated differently depending on whether a covered activity is located inside or outside of the urban service area. Each situation is described in the following sections.

Inside the Urban Service Area

Within the urban service area, land cover fees on private and public projects will be assessed on the development area (see **Figure 6-1**) except for land designated with a land use of Urban Development or Rural Residential (see **Figure 2-2**) on a parcel that is less than 10 acres in which case, the land cover fee is assessed on the entire parcel. The fee will not be paid on any land set aside for the Reserve System (i.e., conservation easement) or for stream setback that is avoided. Fees assessed based on the parcel will be assessed on the entire parcel regardless of how much land disturbance is proposed at the time of the permit application to the local jurisdiction (i.e., regardless of the project footprint). One exception to this is linear public projects (e.g., in stream and utility corridors), which will be assessed the land cover fee based on the project footprint[17]. In these cases, the project footprint for the purposes of assessing the land cover fee is defined as the area where ground disturbance is conducted or vegetation removal occurs. Another exception is that contiguous areas (irrespective of parcel boundaries or ownership) that are 10 acres and larger (for serpentine land cover, 3 acres and larger) and protected by an easement that precludes development are not required to pay Habitat Plan fees. These lands would not necessarily be incorporated into the Reserve System.

[17] As described above, conservation actions will not be charged development fees, including within stream corridors because they support Plan implementation.

Charging the land cover fee on the entire parcel is justified because little or no habitat value for covered species is expected to remain within the urban service area once all covered urban development occurs, with the exception of creek corridors or areas where only a portion of a large parcel is developed, due to habitat removal, disturbance, and fragmentation and severe indirect and adverse effects (see Chapter 4 for more details on the mechanisms and magnitude of these effects). If subsequent covered activities are proposed on the same parcel, the land cover fee is not charged again (a separate wetland fee may be charged if the second project directly affects a stream, wetland, or riparian area and the wetland fee was not paid previously; see below).

Outside the Urban Service Area

Outside the urban service area, the land cover fee will be assessed on private and public projects based on the development area, as defined in Chapter 6, Section 6.4.4, subheading *Condition 7 Rural Development Design and Construction Requirements* (also see **Figure 6-1** for an illustration). The development area is roughly equivalent to the project footprint but includes a 50-foot buffer around permanently disturbed areas and a 10-foot buffer around temporarily disturbed areas. If a subsequent project is proposed on the same parcel, permanent impact fees will only be paid on areas for which permanent impact fees were not previously paid. Land cover fees are paid on the entire development area, even if certain areas are avoided within the development area.

Stream Setbacks

Lands in the stream setbacks required by Condition 11 *Stream and Riparian Setbacks* in Chapter 6 that are avoided (i.e., not directly impacted by the project) are not subject to the land cover fee. If the development is granted an exception or exemption to the stream setback (see Chapter 6, Section 6.4.6, subheading *Condition 11 Stream and Riparian Setbacks*), the project proponent will be charged the applicable Habitat Plan development fees over the entire development area including the affected setback (the unaffected setback is not charged the development fee).

Endowment Fee Component

As described under *Costs in Perpetuity*, above, the Reserve System will require management and monitoring after the permit term. To guarantee funding for these post-permit costs, an *endowment fee component* will be charged as part of each fee (land cover, nitrogen deposition, serpentine, burrowing owl, wetland mitigation, and temporary impact fees), will be charged and gradually accumulated during the permit term. By the end of the permit term the endowment will be large enough to generate revenue from investment returns that will cover all estimated post-permit costs.

The Habitat Plan cost model estimated that costs for post-permit Reserve System management and monitoring will be approximately $2.9 million annually, in 2010 dollars (see Section 9.3.7 *Costs in Perpetuity*). An endowment fund model was constructed to estimate the revenue needed during the permit term to support this need at the end of the permit term.

Based on the endowment model, an endowment fund of approximately $90 million in 2010dollars would be needed at the end of the permit term to generate average real returns (i.e., inflation-adjusted) of $2.87 million annually (plus $60,000 annually for areas with wetland mitigation). This revenue would be sufficient to fund post-permit term Reserve System management and monitoring, including accounting for inflation after the permit term.

Annual returns on endowment fund balances were assumed to equal 3.25%. This key assumption was based on a current habitat endowment management program operated by the National Fish and Wildlife Foundation (NFWF) under agreement with the California Department of Fish and Game. The 3.25% annual real rate of return is net of NFWF administrative fees. This assumption was corroborated by the County of Santa Clara Finance Agency based on their fund management experience.

The endowment fee will be collected from public and private development fee payers over the 50-year permit term. Assuming fee revenue to the endowment fund accrues evenly over the permit term, annual endowment revenues of $720,000 (plus $10,000 for areas with wetland mitigation) would be needed to, with interest, build a $90 million balance in the endowment fund at the end of the permit term. Over 50 years, endowment fee revenue of $37 million would be needed. This is equal to approximately 11.7% of projected revenue from the development fees (12.2% for areas with wetland mitigation). Therefore, the endowment fee component is set at 11.7% or 12.2% of each development fee, (with the higher rate applied to the wetland fee). **Table 9-8** shows the calculation of the endowment fee component**.**

The endowment fee component may be adjusted based on the change in the CPI from the U.S. Bureau of Labor Statistics for the San Francisco–Oakland–San José Metropolitan Area, as described under *Automatic Adjustment of Fees,* below. An evaluation of the fund balance in the endowment fund and the fund's investment performance will be conducted every 5 years as part of the fee assessments described under *Periodic Assessment and Adjustment of Fees,* below. This evaluation will assess the adequacy of the current endowment fund balance and projected future endowment fee revenue for funding perpetual management costs. Based on this evaluation, the endowment fee component may be increased or decreased so that the projected balance of the endowment at the end of the permit term will be sufficient to fund reserve management and monitoring costs in perpetuity.

Plan Preparation Cost Recovery Fee Component

All of the Plan's development fees include a component to partially reimburse the Local Partners over time for the costs incurred to develop the Habitat Plan between 2005 and 2011. The *plan preparation cost recovery fee component* (also called the plan preparation fee component) includes only the Plan preparation costs funded by the Local Partners. This fee does not include the costs funded by the Section 6 Planning Grants from CDFG.

Only the Plan preparation costs related to mitigation of the impact of covered activities were included in the plan preparation fee. We estimated that the cost of preparing a regional conservation plan that only meets the mitigation requirements (i.e., only includes actions to mitigate covered activities) would have been 80% of the preparation cost of the Habitat Plan.

Table 9-9 shows the calculation of the Plan preparation cost recovery fee component. As shown, the Plan preparation costs allocated to mitigation of covered activities were estimated at $4.2 million, or 1.4% of projected development fee revenue. Therefore, the Plan preparation cost recovery fee is set at 1.4% of each of the Plan's development fees. The Local Partners will not pay the Plan preparation cost recovery fee component for their covered activities. Instead the Local Partners will be reimbursed for the fair share of plan preparation costs associated with private development and special participating entities that did not contribute funding for preparation of the Plan.

Nitrogen Deposition Fee

The *nitrogen deposition fee* addresses indirect impacts of covered activities and is based on the Habitat Plan costs related to mitigating the impacts of airborne nitrogen deposition. As described in Chapter 4, serpentine grassland and serpentine covered species in the study area are particularly sensitive to deposition of airborne nitrogen compounds generated by air pollution resulting from vehicles and other sources. These nitrogen compounds enter ecosystems as nitrogen fertilizer. This increased soil fertility favors nonnative annual grasses over native plant species found in serpentine soils. One native serpentine plant species, the dwarf plantain, is the host plant for the Bay checkerspot butterfly, a key covered species in the Habitat Plan. Serpentine plants covered by the Habitat Plan that will be adversely affected by on-going nitrogen deposition include Metcalf Canyon jewelflower, most beautiful jewelflower, smooth lessingia, Tiburon paintbrush, and fragrant fritillary.

It is expected that serpentine lands in the Reserve System will have higher average per-acre costs for reserve management and monitoring than the average costs for non-serpentine land covers. These higher costs result from the number of covered species occurring in serpentine land cover types[18] and the costs of

[18] At least seven covered wildlife species (**Table 3-5**) and eight covered plants (**Table 3-6**) occupy one or more serpentine land cover types for all or part of their life-history.

managing serpentine reserve lands to prevent the intrusion of nonnative species as a result of nitrogen deposition and other threats. The nitrogen deposition fee includes the management and monitoring costs for serpentine lands acquired as mitigation, over and above the average management and monitoring costs that would be required for the same number of non-serpentine acres.

In addition to serpentine grassland, 13 other land cover types in the Reserve System have been identified as sensitive or potentially sensitive to nitrogen deposition (California Energy Commission 2006). As with serpentine land cover types, the adverse effects of nitrogen deposition are expected to increase management costs in these land cover types in order to mitigate these effects (e.g., increased invasive species control). For land cover types known to be sensitive to nitrogen deposition[19], 20% of the estimated mitigation costs are assumed to be related to nitrogen deposition effects. For land cover types that may be sensitive to nitrogen deposition[20], 10% of the estimated mitigation costs are assumed to be related to nitrogen deposition effects. Both estimates are considered conservative and account for the uncertainty on specific effects. Again, base mitigation costs were estimated using typical mitigation ratios for each land cover type.

Air pollution simulation modeling was conducted to estimate the percentage of nitrogen deposition in the habitat areas that results from air pollution emissions within the Habitat Plan study area, as opposed to air pollution that is transported from other regions to the study area (see summary in Chapter 4 and the technical report in **Appendix E**). The modeling estimated that 46% of nitrogen deposition on habitat areas comes from existing development and vehicle traffic generated locally within the study area. The study area share of nitrogen deposition on habitat areas is estimated to increase to 49% in 2035 and 51% by the end of the permit term in 2060. Based on this analysis, 50% of the Habitat Plan costs related to mitigating nitrogen deposition impacts are allocated to development in the study area through the nitrogen deposition fee.

Table 9-7b lists the nitrogen deposition fee, which is applied to all Fee Zones in the same way. The nitrogen deposition fee will be assessed as a fee per new daily vehicle trip over existing conditions. **Table 9-10** shows the derivation of the nitrogen deposition fee. The Local Partners may substitute an alternative revenue source for the fees that would otherwise apply to new vehicle trips.

While nitrogen emissions come from a variety of sources that include vehicles, it is not feasible at this time to charge a fee on major non-vehicle sources of nitrogen (e.g., point sources such as power plants and industry). As shown in **Table 9-10**, the cost of management and monitoring for serpentine mitigation acres over and above management and monitoring costs for an equivalent number of non-serpentine acres is approximately $5.3 million. The non-serpentine mitigation costs related to nitrogen deposition are approximately

[19] Land cover types known to be sensitive to nitrogen deposition are northern mixed chaparral, northern coastal scrub, mixed oak woodland, foothill pine-oak woodland, mixed evergreen forest, and redwood forest.
[20] Land cover types that may be sensitive to nitrogen deposition are California annual grassland, valley oak woodland, blue oak woodland, coast live oak forest and woodland, freshwater marsh, seasonal wetland, and pond.

$14.9 million. Because approximately 50% of nitrogen deposition on these habitats results from nitrogen emissions in the study area, 50% of the costs related to nitrogen deposition are allocated to the study area and are included in the nitrogen deposition fee.

Serpentine Fee

Plan actions required to mitigate impacts to serpentine land cover types are substantially more costly than mitigation actions for impacts to other land cover types. To reflect the higher mitigation costs, an additional serpentine fee will be assessed on direct impacts to serpentine land cover types: serpentine bunchgrass grassland, serpentine outcrops and barrens, serpentine seep, and mixed serpentine chaparral. This fee is in addition to the land cover fee described above. Mitigation for serpentine impacts is particularly costly because per-acre land acquisition, management, and monitoring costs are higher for serpentine than for other land covers. In addition, the preservation ratio for serpentine is higher than for other land cover types in the study area.

Per-acre costs for serpentine mitigation lands are expected to be higher than the average cost for other reserve lands because it is expected that serpentine lands will primarily be acquired through acquisition of parcels in the 50 to 250 acre size range. Overall, the majority of land acquired for the Reserve System is expected to be parcels over 250 acres, and it is expected that the per-acre acquisition cost of these larger parcels will be less than the costs of 50- to 250-acre parcels (see **Appendix G** for details).

Mitigation costs per acre of impact are also higher for serpentine land cover types than for other land cover types because higher preservation ratios are typically required for impacts to serpentine than for impacts to other land covers. The preservation ratio to mitigate serpentine impacts is assumed to be 4.0 acres preserved for each acre of impacts, compared to mitigation ratios of 0.5 to 3.0 for other land cover types in the study area.

The serpentine fee was calculated using the same method described above in the *Calculation Method of Land Cover Fees* subsection. The only difference is that in step 2 of the method described in that subsection, serpentine costs and acres of impacts on serpentine land cover types are used to calculate costs per acre of impact, instead of non-serpentine costs and acreage. As described in that step, additional costs related to nitrogen deposition on serpentine land cover types are deducted before making this calculation because these costs are allocated to the nitrogen deposition fee (described above). As described under *Nitrogen Deposition Fee*, above, serpentine lands also have higher management and monitoring costs than other land cover types in the Reserve System.

The serpentine fee will be imposed based on the acreage of impacts to serpentine land cover types as mapped in the field (see Section 6.8.3 *Item 3: Land Cover Types on Site*). In the fee schedule (**Table 9-6**) the serpentine fee is calculated as the additional cost over and above the land cover fee so the serpentine fee is imposed in addition to the land cover fee. The serpentine fee is also imposed in

addition to the nitrogen deposition fee that would apply to the project because the cost of nitrogen deposition impacts are accounted for separately in the nitrogen deposition fee. The serpentine fee will be adjusted over time to account for inflation (or deflation) according to the methods described below under *Adjustment of Mitigation Fees*.

Burrowing Owl Fee

If a covered activity occurs in occupied burrowing owl nesting habitat as defined in **Figure 5-11**, a *burrowing owl fee* will be paid by the project applicant. This fee will be in addition to the land cover fee. The burrowing owl fee is charged on the area on which land cover fees are levied. A portion of the fee may be waived if a portion of the site is set aside in a conservation easement or management agreement with the Implementing Entity to manage the site for burrowing owl habitat consistent with the Habitat Plan. In these cases, the burrowing owl fee will not be charged on the portion of the site subject to the easement or management agreement.

The burrowing owl fee was determined by the cost to implement conservation actions specifically designed for the western burrowing owl (see Chapter 5, Section 5.4.6 *Western Burrowing Owl* subheading *Burrowing Owl Conservation Priorities*) and the estimated impacts to occupied nesting habitat (see Chapter 4, Section 4.6.4 *Western Burrowing Owl*). These costs are itemized in **Appendix G**. The fee of $50,438 per acre was calculated by dividing the costs of the conservation actions, plus remedial and contingency funding needed for the burrowing owl conservation strategy, by the expected impacts to occupied nesting habitat (198 acres), plus endowment and Plan preparation costs (((($8,570,000 + $260,000)/198)+ $5,218 + $624) (**Table 9-6).**

The burrowing owl fee will be adjusted over time to account for inflation (or deflation) according to the methods described below under *Adjustment of Mitigation Fees*. The burrowing owl fee will be imposed on impacts to occupied nesting habitat based on the most recent modeled habitat map maintained by the Implementing Entity.

Example Development Fee Calculations

Example 1 (urban project 1): *A project is located in an area mapped by the Habitat Plan as "urban-suburban" (i.e., existing developed area). The project site does not contain, and is not adjacent to, streams, riparian areas, wetlands, ponds, or serpentine. The site is also not in burrowing owl nesting habitat. Because the project is located on an exempt land cover type, it does not pay the land cover fee. The nitrogen deposition fee is calculated by multiplying the estimated new vehicle trips (i.e., daily trips generated above the pre-project condition) by the per-vehicle-trip nitrogen deposition fee in* ***Table 9-7b****.*

Example 2 (urban project 2): *A landowner of a 1.2-acre parcel in Gilroy wants to build a new single-family home on most, but not all, of the parcel. The parcel is within Zone B (**Figure 9-1**). The land cover fee is calculated by multiplying the total parcel size, 1.2 acres, by the Zone B per-acre fee in **Table 9-7a**. Because the project is new, it will generate new vehicle trips. The nitrogen deposition fee is calculated by multiplying the estimated new daily vehicle trips by the per-vehicle-trip nitrogen deposition fee in **Table 9-7b**. The two fees are added to arrive at the total Habitat Plan fee for the project, as long as wetlands are avoided (see below). Additional Habitat Plan fees may be assessed as a result of temporary impacts (e.g., leach field construction) and/or impacts to streams and wetlands, as described below.*

Example 3 (rural project): *A landowner of a 40-acre parcel proposes to build a single-family home on 1.5 acres of this parcel. The parcel is located entirely within Fee Zone A (**Figure 9-1**). The base development fee is calculated by multiplying the base fee in Zone A (**Table 9-7a**) times the development area of the project. The development area will be slightly larger than the 1.5-acre project footprint because of the buffer added to the project footprint that accounts for indirect impacts (**Figure 6-1**). Because the project is new, it will generate new vehicle trips. The nitrogen deposition fee is calculated by multiplying the estimated new daily vehicle trips by the per-vehicle-trip nitrogen deposition fee in **Table 9-7b**. The two fees are added to arrive at the Habitat Plan development fee for the project. Additional Habitat Plan fees may be assessed as a result of temporary impacts (e.g., leach field construction) and/or impacts to streams and wetlands, as described below.*

Wetland Fee

Permittees or private project proponents are required to map all wetlands, ponds, streams, and riparian woodland as part of their Habitat Plan Application Package (see Chapter 6, Section 6.8.4 *Item 4: Map of Wetlands, Ponds, Streams, and Riparian Woodlands*). Permittees or private project proponents that impact wetlands, ponds, streams or riparian woodland/scrub will be required to pay an additional *wetland fee* on top of the other development fees. **Table 9-11** lists the applicable fees on wetland, riparian, and stream land cover types. See below for how to calculate these fees.

The wetland fee is intended to pay the full cost of restoration or creation of these land cover types, including design, implementation, post-construction monitoring, and remediation through the permit term.

As described in Chapter 5, mitigation requirements for wetland, stream, pond, and riparian woodland/scrub impacts include both preservation and restoration/creation. The wetland fee will cover the cost of wetland, stream, and riparian restoration or creation, but not wetland, stream, or riparian preservation. The cost of preservation of these land cover types is included in the land cover fee because land prices will not be significantly affected by the presence of these land cover types, and most restoration/creation will occur on land already owned by the Implementing Entity. Therefore, for every acre of impact on wetlands,

streams, ponds, and riparian woodland/scrub, applicants will pay the appropriate land cover fee (according to fee zone) towards land acquisition and the conservation program as a whole, as well as a wetland fee to cover the costs of successful restoration or creation. Wetland fees vary by wetland type to account for the different costs of restoration and the different mitigation ratios required (**Table 9-11**). **Table 9-11** also lists the accepted methods for determining the area to which the wetland fee applies. See the *Development Fee Nexus Study* for the calculation of wetland fees by wetland type. A wetland map completed by a qualified biologist (see Chapter 6, Section 6.8.4 *Item 4: Map of Wetlands, Ponds, Streams, and Riparian Woodlands*) will assist the local jurisdictions and the Implementing Entity in determining appropriate wetland fees.

Calculating Fees for Wetland and Pond Impacts

The fees for impacts to coastal and valley freshwater marsh, seasonal wetland, and ponds is calculated by multiplying the applicable wetland fee (**Table 9-11**) by the acres of impact to the wetland or pond. As described in Chapter 6, Section 6.5, subheading *Condition 12 Wetland and Pond Avoidance and Minimization*, covered activities that do not completely avoid indirect effects to wetlands will be considered permanently impacted. The area of indirect effects, as determined by the local jurisdiction or Implementing Entity, will be added to the area of direct effect when calculating fees for wetland and pond impacts. Exceptions to this are described further in Condition 12. If a wetland or pond occurs in a stream, only one of the fees is paid in that section of the stream (i.e., the fee on stream impacts is not additive to the fee on impacts to in-stream wetlands or ponds). The Implementing Entity will determine which fee is to be paid when wetlands or ponds occur in streams. (Typically the higher of the two fees would be paid.)

Calculating Fees for Stream and Riparian Woodland Impacts

The fee on impacts to streams is calculated by applying the linear distance of stream impact, as measured along the stream centerline, to the stream fee per linear foot (**Table 9-11**). Impacts that occur within the ordinary high water mark of a stream channel will be counted as a stream impact. Impacts that occur on one side of the stream channel will be assessed the fee in the same way as impacts that occur on both sides of the stream channel. As described above, if the stream supports a wetland, only one fee will be paid, as determined by the Implementing Entity.

The fee for impacts to riparian woodland and sycamore alluvial woodland are calculated based on the acres of direct impacts to woodland or scrub vegetation as measured by the outer limit (the side away from the stream) of the tree or shrub canopy (drip line). Impacts to riparian woodland or sycamore alluvial woodland that also affect the stream channel will pay both fees (i.e., the fee on riparian impacts is additive to the fee on stream impacts).

Aquatic Restoration or Creation Provided in Lieu of Wetland Fee

Unlike other development fees, wetland fees cannot be waived in lieu of land dedication (see *Land Provided in Lieu of Development Fees* below for details). However, project proponents have the option of restoring, managing, and monitoring their own wetland, stream, or riparian mitigation site in lieu of paying all or part of the wetland fee. Project proponents may propose to the Implementing Entity to create, manage, and monitor their own pond mitigation site in lieu of paying all or part of the wetland fee. In both cases, construction of restoration and creation of aquatic features will be initiated prior to or concurrent with construction of the covered activity, the mitigation will be consistent with the requirements of Chapter 5, the site will be protected by a conservation easement[21], and management and monitoring will be funded in perpetuity. Applicants may propose paying the Implementing Entity to manage and monitor the site after construction is completed. Construction of all aquatic restoration and creation projects must comply with the Stay-Ahead provision of this Plan and must be completed by Year 40, consistent with the requirement for the Implementing Entity to do the same (see Chapter 5).

The Implementing Entity must approve requests to perform aquatic restoration or creation in lieu of paying the wetland fee. The Implementing Entity will evaluate proposals to perform restoration and/or creation in lieu of wetland fees based, in part, on the history of the applicant performing successful wetland restoration elsewhere and whether the restoration or creation project is consistent with the conservation strategy and requirements of the Plan. Restored and created aquatic features must also meet the reserve design and assembly criteria in Chapter 5. In order for the Implementing Entity to approve aquatic restoration or creation in lieu of fees, the local jurisdiction approving the project must secure a guarantee through conditions of approval that the restoration or creation will be implemented and remediated if success criteria are not met. In the case of a Permittee proposing the restoration or creation in lieu of wetland fees, the Permittee must sign an agreement with the Implementing Entity to provide this guarantee. After success criteria are met and the applicant assures funding, the Implementing Entity will assume all management and monitoring responsibility of the restoration or creation site as part of the Reserve System.

To satisfy Clean Water Act Section 401 and 404 requirements, aquatic restoration and creation may also need to be approved by the Corps and Regional Board and meet the success criteria agreed upon by these agencies.

Alternatively, applicants may purchase appropriate wetland restoration or creation credits in a private mitigation bank in the permit area that has been approved separately by USFWS and CDFG and pre-approved to service the Habitat Plan. Currently there are no such banks in the study area, but they may

[21] As described in Chapter 5, Permittees may implement some stream and riparian restoration projects outside of the Reserve System (i.e., without a conservation easement).

be established. Guidelines for the use of mitigation banks are found in Chapter 8, Section 8.6.2, subheading *Private Mitigation Banks*.

Temporary Impact Fee

As described in Chapter 2, there are many covered activities that are ongoing and that result in small, localized, temporary impacts on natural land cover types. As described in Chapter 4, the majority of these activities, particularly those within urban areas, will have little or no effect on covered species or their habitats. Some ongoing activities, however, are expected to have substantial temporary impacts on covered species due to their large footprint, location in natural land cover types, effect on local soils or hydrology, or a combination of these factors. Temporary impacts are defined in Chapter 4 as "direct impacts that alter land cover for less than one year and that allow the disturbed area to recover to pre-project or ecologically improved[22] conditions within 1 year (e.g., prescribed burning, construction staging areas) of completing construction."

Specific temporary impacts are subject to the temporary impact fee (see list below of specific activities subject to this fee). Projects subject to the temporary impact fee will pay the fee in one of two ways.

- If the frequency of the impact over the permit term can be predicted, the applicant may pay the fee for infrequent treatments up front, to address all impacts during the permit term. This discounted fee is calculated as a fraction of the full land cover fee. The total fee will be calculated using the formula below.

  Temporary Impact Fee = (Land cover fee × development area or project footprint in acres × (F + R)) / 50

  where *F* = the number of calendar years in the permit term in which the activity occurs and *R* = the number of calendar years expected for the site to return to pre-project conditions (a maximum of 1 year). Temporary impacts are not subject to the nitrogen deposition fee.

  The maximum time allowed for a site to return to pre-project conditions will be 1 year from the end of construction. The project proponent must document to the satisfaction of the Implementing Entity that the disturbance and site recovery occurred at or better than the predicted timeline.

  OR

- The applicant may pay the full land cover fee (see **Figure 9-1** and **9-7a**) and retain the ability to disturb the area repeatedly during the permit term.

  Temporary impacts that occur in the same location repeatedly during the permit term and that pay the full land cover fee will be counted and tracked as a permanent impact. Temporary impact fees paid on a site can be credited

[22] *Ecologically improved* means that the site functions ecologically better than the functions present on the site prior to ground disturbance.

towards any permanent impact fees that may be required on the same site in the future.

As described in Chapter 8, all or a portion of the temporary impact fee can be waived in exchange for land dedication or aquatic restoration or creation, based on the nature of the impact. The amount waived will be determined by the Implementing Entity on a case-by-case basis according to the rules and principles described in Chapter 8.

Temporary impacts that occur within wetland or serpentine land cover types will be assessed a temporary wetland or serpentine mitigation fee according to the formula shown above, but based on the applicable wetland or serpentine mitigation fee (see **Tables 9-6**). Temporary impacts that occur on occupied burrowing owl nesting habitat, as defined in **Figure 5-11,** will also pay a temporary impact fee according to the burrowing owl fee.

Applicants have the option of developing and implementing their own wetland restoration or pond creation project in lieu of the temporary wetland fee. If the applicant's restoration plan is approved by the Implementing Entity, then no temporary wetland impact fee is required. The Implementing Entity will verify that the applicant's wetland restoration and/or creation project is constructed according to specifications and that the project meets its success criteria.

Activities Not Subject to the Temporary Impact Fee

To reduce administrative costs, temporary impact fees will not be assessed on any covered project with impacts of less than 0.25 acre except to wetlands, ponds, riparian woodland, streams, or serpentine.

All covered activities that result in temporary impacts are subject to the applicable conditions described in Chapter 6 and will be tracked against the Plan's impact limits. As described in Chapter 2, some agencies may already have endangered species permits for operations and maintenance activities and will therefore not be subject to the requirements of this Plan or the temporary impact fee (e.g., SCVWD for their Stream Maintenance Program).

The conservation actions described in Chapter 5 and the monitoring actions described in Chapter 7 will not be assessed a temporary impact fee. For example, wetland, stream, and riparian restoration projects conducted for the Habitat Plan may result in temporary impacts. Because these actions support the conservation strategy, they will not be assessed a temporary impact fee.

Mowing of previously maintained flood control channels will have minor impacts and is therefore subject to applicable conditions in Chapter 6 but not subject to the temporary impact fee because the impact analysis assumed these land cover types would be permanently affected during the permit term (these covered activities will pay the appropriate fee prior to impact). Similarly, mowing of existing road rights-of-way that are regularly mowed are subject to applicable conditions in Chapter 6 but not subject to the temporary impact fee.

Sediment removal in artificial off-channel detention basins or groundwater recharge ponds, when free of vegetation, are not subject to temporary impact fees.

Activities on Urban Development or Rural Residential Land Uses Inside the Planning Limit of Urban Growth

Covered activities such as mowing, tree trimming, and other activities resulting in temporary impacts that occur in areas with a land use of urban development or rural residential within the planning limits of urban growth, but excluding San José's Coyote Valley Urban Reserve and South Almaden Valley Urban Reserve, Morgan Hill's Southeast Quadrant, or Gilroy's Hecker Pass, are subject to the conditions described in Chapter 6 but will not be charged a temporary impact fee because the impact analysis assumed these land uses would be permanently affected during the permit term (these covered activities will pay the appropriate fee prior to impact).

Activities Subject to the Temporary Impact Fee

Temporary impacts of any size to wetlands, ponds, riparian woodland, streams, serpentine, or burrowing owl occupied nesting habitat will be charged the appropriate temporary fee regardless of location.

Maintenance of the vegetated portion of on-channel detention basins or vegetated groundwater recharge ponds is subject to the temporary impact fee because these areas are more likely to provide habitat for covered species.

Activities Outside the Planning Limits of Urban Growth with Little or No Soil Disturbance

Covered activities with temporary effects outside the planning limits of urban growth that result in little or no soil disturbance and that are greater than 0.25 acre are more likely to affect covered species than the same covered activities within the planning limits of urban growth. The activities that will be assessed a temporary impact fee for the portion of the project outside the planning limits of urban growth of the participating jurisdictions include, but are not limited to, those listed below.

- Road or trail maintenance along vegetated shoulders where natural land cover types are disturbed or removed.
- Maintenance of public facilities including buildings, utilities, and stormwater treatment where natural land cover types are disturbed or removed.
- SCVWD maintenance activities outside streams, canals, and other facilities (vegetation clearing on dam faces will pay the full land cover fee because it is considered a permanent impact).
- Septic leach fields.

- Vegetation clearing needed for utility line or gas line maintenance (e.g., mowing, disking, herbicide spraying, tree trimming[23]).
- Weed abatement undertaken by Permittees.

Sediment removal in artificial off-channel detention basins or groundwater recharge ponds, when free of vegetation, are not subject to temporary impact fees in the same way as on-channel detention basins or groundwater recharge ponds, as described above. Similarly, vegetation removal conducted by a Permittee to establish a fuel break on private property (e.g., as an enforcement action) is not subject to temporary impact fees.

Activities Outside the Planning Limits of Urban Growth with Soil Disturbance

The following covered activities larger than 0.25 acre include those projects where the area of impact on covered species is larger than the project footprint (e.g., effects on wildlife movement or connectivity). Such activities outside the planning limits of urban growth of the participating jurisdictions include, but are not limited to, those public or private projects listed below[24].

- Pipeline installation, repair, or replacement (trenching).
- Underground electrical transmission line installation, repair, or replacement.
- Underground telecommunication line installation, repair, or replacement.

The Implementing Entity, in consultation with the project proponent and the Wildlife Agencies, will determine an appropriate project impact area subject to the temporary impact fee. These types of activities may have both temporary and permanent effects (i.e., trenching through a wetland complex that permanently alters site hydrology would considered be a permanent effect). In these cases, the temporary impact fee along with other fees described in this chapter could be assessed. Coverage under the Habitat Plan will also be subject to the approval of the Implementing Entity. As an alternative to devoting time and resources to defining a project impact area, project proponents may choose, in consultation with the Implementing Entity, to pay the full land cover fee on the project footprint in lieu of paying temporary impact fees multiple times during the permit term.

Collection of Mitigation Fees

All fees paid by private applicants to participating jurisdictions will be collected by the applicable jurisdiction. Fees paid to participating local jurisdictions will be transferred to the Implementing Entity on a regular basis, but at a minimum,

[23] Tree removal outside the urban service areas of the participating jurisdictions will be treated as an activity with soil disturbance.

[24] The Permittees do not have jurisdiction over some of the activities in this list. However, these projects could be covered by the Plan through the *Participating Special Entities* process described in Section 8.4.

annually. The transfer schedule and process will be determined by the Implementing Entity early in Plan implementation.

All fees paid by public agencies (i.e., the Permittees) will be paid directly to the Implementing Entity according to a process and schedule developed by the Implementing Entity. See *Timing of Mitigation Fee Payment* below.

Adjustment of Mitigation Fees

The dynamic nature of the costs associated with HCP and NCCP implementation, including land acquisition costs and operating, maintenance, and management costs, requires a flexible approach to funding through time. Many existing HCPs have not incorporated sufficient flexibility into their funding mechanisms and, as a result, have found that funding lags behind increasing costs, compromising Plan implementation. This Plan includes two mechanisms for adjusting fee levels: automatic adjustments and periodic assessments. Both adjustments will be performed by the Implementing Entity and provided to all participating local agencies.

Automatic Adjustment of Fees

The two primary costs of the Plan, land acquisition and operations/maintenance, will likely change at different rates over time. Land costs in many areas of California, including the San Francisco Bay Area, have historically increased well above the rate of inflation. The significant demand for housing in the Bay Area and the more limited housing supply have often increased housing prices significantly, in turn increasing the value of developable land. Other Plan costs, including the cost of personnel, supplies, and equipment involved in managing, operating, restoring, and maintaining the Reserve System, will more closely follow the general rate of inflation. To account for these differing rates of inflation, the Implementing Entity will update the development fees automatically on an annual basis by a date determined by the Implementing Entity's Governing Board within the first 6 months of Plan implementation according to the indices and procedures described in **Table 9-12**.

The variation in the cost of land due to site-specific factors means that it is difficult to develop land cost indices; consequently, no such indices are available. However, given the link between the housing market, housing prices, and land costs, housing prices generally provide a more accurate index for land cost inflation than measures of general inflation, especially for land whose value is primarily generated by its development value. The index to be used to adjust the land acquisition cost portion of fees is the annual House Price Index (HPI) from the Federal Housing Finance Agency for the San José–Sunnyvale–Santa Clara, CA Metropolitan Statistical Area for the prior calendar year. The index to be used to adjust the non–land cost portion of fees is the CPI from the U.S. Bureau of Labor Statistics for the San Francisco–Oakland–San José Metropolitan Area. The Implementing Entity may decide to use other indices during Plan

implementation if other indices are developed that better predict the costs of the Plan.

Annual automatic adjustments in development fees will either increase or decrease the total fee per acre. Fees are more likely to go up than down each year. Since 1915 the CPI for this Metropolitan Statistical Area has gone up in 81 of 92 years (88% of the time). Since 1977, the HPI has gone up in this Metropolitan Area in 24 of 30 years (80% of the time).

Periodic Assessment and Adjustment of Fees

To ensure that the fees generated by development and other covered activities are adequately covering their share of Plan costs, two types of fee reviews will be performed on a regular basis. At least every 2 years, the Implementing Entity staff will analyze the fee amounts and compare them to actual and projected costs. The Implementing Entity staff will then report to the Implementation Board on whether the automatic fee adjustments are keeping pace with actual costs to provide an opportunity to adjust fees different than the automatic adjustments.

In addition, every 5 years a fee assessment will be completed to review the costs and their underlying assumptions that were developed as part of the original funding plan. The review could include comparing appropriate land sales in the study area transacted after the start of the Habitat Plan with the original land cost assumptions (see **Appendix G**). The actual costs of operating, maintaining, and managing the Reserve System can also be compared to the original estimates of these costs to determine the actual change in non-land costs. Automatic annual fee increases will resume after the periodic fee assessment and will continue until the next periodic assessment.

Fees may go up or down depending on the results of the assessment.

Timing of Mitigation Fee Payment

For private projects, mitigation fees are required to be paid before or at the time the grading permit for the project is issued. If a grading permit is not required, fees must be paid before or at the time the first construction permit is issued[25].

For public projects, mitigation fees must be paid to the Implementing Entity prior to implementing the covered activity. For public projects conducted by outside contractors, the timing of fee payment may coincide with the award of the construction contract because this represents the time at which the public agency commits to implementing the project.

[25] A grading permit is typically the first permit issued that results in ground-disturbing activity. In cases where there is no grading permit, the fees will be due upon issuance of the first construction permit (e.g., building permit).

Land Provided in Lieu of Development Fees

If a landowner or Permittee conveys a portion of the development site (either in fee simple or a conservation easement) to be included in the Habitat Plan Reserve System and the Implementing Entity and the Wildlife Agencies approve the inclusion, the portion of the property included in the Reserve System would not be assessed the land cover, serpentine, burrowing owl, and/or land cover temporary impact fees[26], as appropriate. Landowners may also provide land separate from development sites for the Reserve System, if approved by the Implementing Entity and the Wildlife Agencies.

In both cases (land provided on or off the covered activity site), landowners or Permittees that convey land to the Implementing Entity may receive credit for the dollar value of these acquisitions against select development fees that might be owed by the landowner or Permittee due to impacts of their covered activities. Land to be conveyed by a landowner or Permittee will be eligible for development fee credit if the land satisfies the criteria described in Chapter 8, Section 8.6.7 *Land Dedication In Lieu of Development Fee.*

Criteria for Determining Fee Credit for Land Provided in Lieu of Development Fees

The value of the conveyance of land to the Implementing Entity and any credit against development fees will be determined by the Implementing Entity on a case-by-case basis. Any land provided in lieu of development fees must contribute toward the implementation objectives and requirements of the Habitat Plan. In quantifying the credit to be awarded, the Implementing Entity will consider all of the following:

- the extent to which the land would contribute toward the implementation objectives and requirements of the Habitat Plan,
- the fair market value of the land based on an appraisal,
- actual land transactions costs, and
- actual costs of biological survey work performed to provide baseline data for the Habitat Plan, if applicable.

The Implementing Entity will award any credits against development fees from land conveyed after the conveyance has been completed.

[26] For sites within the urban service area where the entire parcel is charged the development fees, this means that the portion of the parcel dedicated to the Reserve System would have fees waived in that portion. The acquisition and transactional value of the portion dedicated to the Reserve System also provides a fee credit to the portion of the parcel paying the development fees. Covered activities outside the urban service area only pay a fee based on the development area, so portions of a parcel dedicated to the Reserve System would only provide a fee credit to the fees that apply in the development area.

Fee waivers and credits in exchange for land conveyed will only be allowed when the Implementing Entity determines that acceptance of land in lieu of funds is consistent with the conservation strategy. For example, one of the factors that the Implementing Entity will consider is whether it has sufficient funds available or funding commitments to manage and monitor the conveyed land during the permit term. (See the end of this chapter for a discussion of funding for post-permit management and monitoring.) Funding to ensure management and monitoring of the land conveyed will be provided by the project proponent. Any funds provided by the landowner or Permittee in excess of the amount required to ensure management and monitoring will be credited against any development fees otherwise due. Land cannot be dedicated in lieu of wetland fees and the nitrogen deposition fee.

Implementing Conservation Actions in Lieu of Development Fees

As described above, at the discretion of the Implementing Entity, landowners and Permittees have the ability to provide land in lieu of all or a portion of select development fees or wetland restoration or creation in lieu of all or a portion of their wetland fees. Permittees with special expertise may also provide other forms of conservation besides land acquisition in lieu of all or a portion of all development fees otherwise owed by them. At the discretion of the Implementing Entity, conservation actions performed or undertaken by Permittees will be eligible to offset development fees if the Permittee satisfies all of the following criteria:

- the conservation action is consistent with the conservation strategy (Chapter 5) or the monitoring and adaptive management program (Chapter 7);
- the conservation action contributes to the biological goals and objectives, the implementation objectives, and would fulfill Plan requirements;
- the conservation action will be completed prior to the date on which development fees are owed; and
- the award of a development fee credit will not hinder the Implementing Entity's ability to satisfy its Stay-Ahead requirement.

For example, a Permittee may conduct portions of the monitoring program that occur in streams under their jurisdiction. In another example, Permittees may provide land management or administrative services to the Implementing Entity, both of which could offset all or a portion of development fees. Conservation actions performed for the Three Creeks HCP to benefit fish covered in that plan may also benefit the covered species in the Habitat Plan and therefore could be credited under both plans.

The monetary value of the credit will be determined by the Implementing Entity on a case-by-case basis. The timing of fee credit will also be determined by the Implementing Entity on a case-by-case basis. In most cases, conservation actions

would need to be performed prior to the covered activity occurring and fee credit being applied (e.g., all aquatic restoration and creation actions would have to occur prior to the construction of the covered activity in order to receive credit toward development fees).

Conservation actions on non-wetland land cover types may be used only to offset land cover fees, not wetland fees. Restoration or creation actions for wetland land cover types can be used only to offset wetland fees, as described below under subheading *Aquatic Restoration or Creation Provided in Lieu of Wetland Fee*.

Permittees that intend to undertake multiple conservation actions may present a package of conservation actions to the Implementing Entity for their approval of credit collectively. Credit provided by conservation actions conducted by a Permittee well in advance of the covered activities may be used by the Permittee to offset fees required for future covered activities.

In quantifying the credit to be awarded for single conservation actions or multiple conservation actions, the Implementing Entity should consider the following:

- the conservation value of the action with respect to Plan implementation requirements, as described based on a standard economic valuation approach related to the Plan fee structure;
- whether the project is located on a site with high resource or restoration values, or has unique or high biological values that support its inclusion in the conservation strategy; and
- whether maintenance and monitoring costs have been identified and are incorporated into cost of the project or otherwise provided according to the requirements of the Plan.

Credits accrued by a Permittee do not have any value beyond covering development fees incurred during Plan implementation. If a Permittee has credits remaining at the conclusion of the permit term, no payment or "refund" will be made to the Permittee. Selling or trading credits between Permittees is not allowed because the funding strategy of the Plan relies on certain contributions of the Permittees beyond their mitigation requirements (see Section 9.4.2 *Local Funding*).

Fee Exempt Projects and Participating Special Entities

Some private projects exempt from the Habitat Plan fees and Habitat Plan ordinance may wish to pay Plan fees or comply with other Plan conditions to facilitate compliance with environmental laws other than the ESA, CESA, or NCCP Act. For example, urban development on a parcel that is less than 0.5 acre that would not affect streams, riparian, wetlands, ponds, or serpentine would be exempt from the Habitat Plan fees. If this parcel supports a small amount of other natural land cover, the project proponents may wish to pay Habitat Plan fees and apply applicable conditions on covered activities in Chapter 6 through their local development approval process to enhance their project for other

purposes (e.g., CEQA)[27]. Fee payment however, does not define a project applicant's need for incidental take coverage under the Plan. In some cases, projects with minor impacts may not be required to pay Habitat Plan development fees. These project proponents would still be required to submit an application package, as defined in Chapter 6 so that quantifiable impacts can be tracked by the Local jurisdiction and Implementing Entity.

For activities performed by a Participating Special Entity (see Section 8.4 *Participating Special Entities*), the Participating Special Entity will pay, at a minimum, the same fees as the Permittees (i.e., applicable development fees) to receive take authorization. The Implementing Entity may require additional fees to cover direct and indirect costs of extending permit coverage under the Habitat Plan, including the costs of Implementing Entity staff time to assist with permit coverage, a portion of the costs of the initial preparation of the Plan, and a portion of the costs of conservation actions designed to contribute to species recovery.

9.4.2 Local Funding

Substantial funds for Plan implementation will come from local sources other than Habitat Plan fees (**Table 9-5**). As described in Chapter 8, land acquisitions and other conservation actions conducted by local organizations can be counted towards the Habitat Plan as long as those conservation actions meet the terms of the Plan. Land acquisition and other conservation actions conducted prior to impacts of the Permittees can be counted towards fee requirements, as described above.

The following local agencies are expected to provide funding that will support the Plan. These local funding sources require that they be used to contribute to the recovery of the covered species (i.e., the NCCP portion of the Plan) or used to mitigate the impacts of their own agency.

Other funding sources may be identified and used during Plan implementation. For example, there may be future ballot measures which could include a funding component for specific elements of Habitat Plan implementation. However, the Local Partners are not expected to, nor are they required to, utilize local general funds for Habitat Plan implementation. Funding shortfalls, and the options available if they occur, are discussed below in Section 9.4.4 *Funding Adequacy*.

County of Santa Clara Parks and Recreation Department

The County of Santa Clara Parks and Recreation Department has been acquiring lands consistently since its founding in 1956.County Parks has a dedicated source of local funding that is used for land acquisition and a majority of their

[27] For the funding analysis, no funding was assumed from exempt projects that choose to opt in to the Habitat Plan.

operations and maintenance budget. The Park Charter Fund was approved by voters in 1972 and has been reauthorized six times since, most recently in 2006, by large margins[28]. Currently, the Fund must be reauthorized by the voters every 12 years; the current fund is authorized through 2021. The Fund is generated by an assessment on property throughout Santa Clara County at 1.425 cents per $100 of assessed value. A minimum of 15% of the Park Charter Fund is earmarked for land acquisition. The County Parks Strategic Plan in 2003 estimated 10-year revenues for land acquisition at over $67 million (County of Santa Clara 2003). As a source of funding, the Park Charter Fund has restrictions for the use of its funds where funds can only be used for "…the acquisition, development or acquisition and development of real property for county park purposes and for the maintenance and operation of county parks." The intended use of the Park Charter Fund for the goals of the Habitat Plan would need to be consistent with County park purposes for public access and recreation[29]. In addition to the provision of park and recreation purposes, the Park Charter funds can be used to contribute to the recovery of the covered species and/or to mitigate for the impacts of County projects. The funds cannot be used to mitigate private development or the covered activities of non-County Permittees.

County Parks is estimated to acquire 5,950 acres of new land that will directly support the Habitat Plan. Actual acquisitions that support the Plan may exceed this estimation. Any acquisitions conducted by County Parks would be owned by the County. All other species and habitat-related management and monitoring would be paid for by the Implementing Entity. The value of 5,950 acres of land acquisition by County Parks is $45,980,000 over the life of the Plan (**Table 9-5**). This value was calculated using an average per acre land value of $7,727, which includes land costs, transaction costs, due diligence, and pre-acquisition surveys (based on total land acquisition costs of $278,940,000 [**Table 9-1]** and 36,100 total acquired acres for the Reserve System). Of the total amount of approximately 5,950 acres, approximately 1,100 acres are interim conservation lands (**Table 5-5**).

The County Parks Strategic Plan estimated spending on land acquisition at approximately $5.6 million per year in 2007 dollars (County of Santa Clara 2003), or $80 million to $120 million over the 10-year horizon of the Strategic Plan. The $46.0 million estimate for the Habitat Plan thus represents a conservative portion of the projected expenditures on land acquisition for the agency as a whole over 50 years.

The value of County Parks land contributions to the Habitat Plan could be used to offset any fees that the County would owe to the Habitat Plan for projects undertaken by the County. County Parks' acquisitions would also be used to contribute to the recovery of the covered species; they cannot mitigate the impacts of non-County projects. Wetland fees will not be offset by land acquisition, and in such cases the respective proponents of County projects would have to cover these wetland fees. Development fees that would be owed by the County excluding wetland fees are estimated at $ 26.7 million ($23.7 million by

[28] For example, in 1996, the Park Charter Fund was reauthorized by 80.2% of the votes in the affirmative.
[29] See Article VI, Section 604 of the Santa Clara County Code.

County Parks and $3.0 million by County Roads and Airports), all of which would be offset by the contribution of land to the Plan by County Parks.

Land Acquisition by Other Local Land Agencies, Non-Profits, and Foundations

To complete the Reserve System, an estimated 10,000 acres must be acquired in addition to the land acquisition expected from County Parks, state and federal funding (described below), and land acquisition funded by development fees. The additional 10,000 acres is also needed from local sources to provide adequate local funding matches for the state and federal grants expected for the Plan. The cost of the additional 10,000 acres is estimated at $77.3 million (**Table 9-5**) based on the same per acre cost used to calculate the estimated value of County Parks land acquisition explained in the prior subsection. The funding for this land acquisition is expected to come from a variety of local land acquisition agencies, non-profit organizations that are dedicated to land acquisition for open space purposes, and local foundations active in this field. Each of these potential sources is described below.

Santa Clara County Open Space Authority

The Open Space Authority currently owns over 15,300 acres of open space in Santa Clara County, approximately 80% in fee title ownership. This agency has been acquiring land since 1995, although most purchases began in 1999.

The Open Space Authority is supported by an assessment district based on property tax assessments in Santa Clara County, San José, Milpitas, Santa Clara, Campbell, and Morgan Hill. The City of Gilroy is not part of the Open Space Authority. To date, the Open Space Authority has spent over $50 million on land acquisition (not in current year dollars) from their benefit assessment district, grants, and gifts.

The purpose of the Open Space Authority is "to preserve key portions of the natural environment in order to balance continuing urban growth." This purpose is consistent with the purposes of the Habitat Plan. The boundary of the Open Space Authority coincides almost exactly with that of the Habitat Plan study area. Because of this geographic alignment and a consistent agency purpose with the Habitat Plan, a majority of future acquisition by the Open Space Authority are expected to be suitable for the Habitat Plan Reserve System.

On September 9, 2010, the Open Space Authority Board of Directors adopted a set of principles of participation in the Habitat Plan. These principles will serve as a basis for a more formal agreement between the Open Space Authority and the Implementing Entity. The principles of participation include commitments to help the Implementing Entity implement the Plan by partnering with them on land acquisition and land management. The Open Space Authority Board has also stated their intent to acquire an estimated 5,000 acres for inclusion in the

Reserve System using their own funds and an additional 2,500 acres for the Reserve System if feasible (e.g., leveraging their own funds with those of others).

The Open Space Authority has also stated their intent to enroll an estimated 1,000 acres of their existing lands into the Reserve System that meets the reserve design requirements and principles of the Plan and to enable enhancement actions funded by the Implementing Entity that will benefit the covered species. If Open Space Authority lands could not be enrolled in the Reserve System because conservation easements are precluded[30] and these lands meet all other criteria for Type 1 or Type 2 open space under the Habitat Plan, then the lands could also count towards the 1,000 acres.

In summary, the Open Space Authority intends to incorporate 5,000 acres of interim lands or lands acquired after permits are issued into the Reserve System and may incorporate an additional 2,500; an estimated 7,500 acres of the 10,000 acres (75%) needed from other local funding sources. In addition, the Open Space Authority intends to enroll up to 1,000 acres of existing lands.

The Open Space Authority also acknowledges their likely role as an agent for land management for Reserve System lands on behalf of the Implementing Entity. The Open Space Authority could serve as a land manager on land that it owns within the Reserve System or on land owned by others within the Reserve System.

The Nature Conservancy

As described in Chapter 2, The Nature Conservancy (TNC) is working to preserve land in and adjacent to the study area through its Mount Hamilton Project, which seeks to protect the most ecologically critical 500,000 acres of this landscape. To date, The Nature Conservancy has permanently protected roughly 110,000 acres in the Mount Hamilton Range through acquisition of conservation easements or fee title to ranches east of U.S. 101. Land acquired in fee title has been transferred to land management agencies such as Henry W. Coe State Park, the CDFG, and the Open Space Authority.

Throughout the planning process, TNC has been an active supporter of the Habitat Plan. They have participated in the Stakeholder Group and provided technical support to the conservation strategy. As a result, many of the conservation goals of the Plan are not only consistent with the conservation goals of the Mount Hamilton Project but with TNC's conservation protocols more broadly. TNC is expected to continue to support the Plan in implementation as a potential land acquisition partner to the Implementing Entity. Where conservation goals overlap, TNC may be able to provide matching funds beyond those identified in this chapter to leverage funds provided by the Implementing Entity. In some instances, TNC may be able to act more quickly to secure land

[30] Interest in land "dedicated for open space purposes" by the Open Space Authority Board cannot be transferred without a vote of the people. This may prohibit conservation easements, which are transfers in land interest.

deals than one of the local public agencies or the Implementing Entity. In these instances, they may act as a land acquisition agent for the Implementing Entity by temporarily holding land until the land can be transferred to a local land management agency like County Parks or the Open Space Authority and added to the Reserve System. In addition, TNC may provide technical assistance to the Implementing Entity during implementation. Although no funding from TNC is identified, TNC would very likely continue to acquire land in the study area, and some of that land is expected to be suitable for the Habitat Plan Reserve System.

Peninsula Open Space Trust

The Peninsula Open Space Trust (POST) is a non-profit land trust that has been actively protecting open space in the Santa Cruz Mountains for over 30 years, including within this Habitat Plan study area. POST is among several strong non-profit conservation leaders in the area covered by the Habitat Plan. Although no funding from POST is identified, POST would likely continue to acquire land in the study area, and some of that land is expected to be suitable for the Habitat Plan Reserve System.

Local Foundations

Local foundations that support open space acquisition and biodiversity planning are expected to play an important role in supporting the Habitat Plan. Foundations such as the Gordon and Betty Moore Foundation (Moore Foundation) and the David and Lucile Packard Foundation (Packard Foundation), which are based in Santa Clara County, have a history of supporting land conservation in the Western United States and are supportive of regional conservation planning in general. The Moore Foundation in particular has expressed support for this Plan acknowledging that the Plan's broad and comprehensive conservation strategy for the region will benefit a wide range of conservation programs and could possibly serve as a model program for others in California. Foundations are expected to continue providing funds beyond those identified in this chapter for land acquisitions within the study area[31], and this Plan may be considered in their funding decision processes.

Interest Income

A small source of income to the Implementing Entity will come from interest on fund balances generated by development fee revenues held prior to expenditure, with a larger amount coming from earnings on the endowment prior to the end of the permit term. The interest estimate for fee revenues held prior to expenditure assumes that the Plan's fund balances will earn an average interest rate of 3.0%. This is consistent with the assumption generally used by the County of Santa

[31] As an example, in 2009 and 2010 the Gordon and Betty Moore Foundation provided two grants totaling $2.38 million to the East Contra Costa County Habitat Conservancy to fund land acquisition for their HCP/NCCP.

Clara Finance Agency when projecting future interest income. Future interest rates are uncertain; however, this assumption is reasonable. The average return rate on the state's Local Agency Investment Fund (LAIF), a statewide investment pool for local agencies, over the 10-year period through fiscal year 2009–2010 was 3.2%, similar to the performance on the County's commingled investment pool.

The Implementing Entity's monetary income from fees is estimated to be approximately $363.7 million over the 50-year permit period (**Table 9-5**), or an average of $7.3 million per year. Local government finance experts indicate that local agencies often hold operating reserve balances equal to approximately 20% of their annual revenue. Thus, it is estimated that the Implementing Entity's average fund balances from fees will be 20% of its annual fee income. (The Plan assumes no interest generated from grant funds due to the typical requirement to spend the land acquisition grants immediately.) Using this assumption, interest income from the Plan's non-grant revenue is estimated to be $2.2 million over the 50-year permit period (**Table 9-5**).

9.4.3 State and Federal Funding

The U.S. Congress and the California Legislature have determined that conserving species and their natural habitats is an issue of both national and state importance. The federal and state governments will strive to assist local governments and property owners to assemble, manage, and monitor the Habitat Plan Reserve System. This assistance will contribute to the land acquisition requirements of the Plan, contribute to recovery of listed species in the study area, and reduce or avoid the need to list additional species as threatened or endangered.

Through this Habitat Plan and the Implementing Agreement with the Permittees, the federal and state governments will endeavor to contribute 14,900 acres of land to the Reserve System that will be administered, managed, and monitored by the Implementing Entity[32]. To be conservative, the Plan assumes that the Implementing Entity will incur the costs of administering, managing, and monitoring these lands. Funding for this land acquisition could come from a variety of sources, including those administered by CDFG and USFWS (**Table 9-13**). Land contributions by USFWS and CDFG could be provided through contributions by the Wildlife Conservation Board. An assessment of progress toward this goal will be made annually and included in the annual report of the Implementing Entity submitted to CDFG and USFWS.

State and federal funding sources other than those administered by CDFG and USFWS (and other than the Wildlife Conservation Board) are also expected to

[32] 14,900 acres = $115 million / $7,727 per acre average land acquisition cost, rounded to the nearest hundred acres. Although this acreage contribution represents 41% of the new land acquired for the Reserve System, this overstates the percentage of the overall effort attributable to State and Federal contribution to the Plan from these funding sources because of Plan costs in addition to land acquisition, e.g., management and monitoring costs.

play an important role in implementing the Habitat Plan. For example, many of the funding sources described in **Table 9-13**, especially sources administered by the California Coastal Conservancy and the California Department of Parks and Recreation, have provided substantial revenues in the past for habitat conservation in the Habitat Plan study area.

If, after the exercise of all available authority and utilization of all available resources, the CDFG and USFWS are unable to contribute 14,900 acres to the Habitat Plan Reserve System, the Implementing Entity, the Permittees, CDFG, and USFWS will reevaluate the Plan and work together to develop a mutually acceptable solution.

Implementation of the Habitat Plan is subject to the federal Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Plan will require the obligation, appropriation, or expenditure of any money from the United States Treasury. USFWS will not be required to expend any federal agency's appropriated funds until an authorized official of that agency commits these funds in writing. Similarly, CDFG will not be required to expend any state agency's appropriated funds until an authorized official of that agency commits these funds in writing. The state and federal agencies will use their best effort to contribute the acreage identified above.

Measuring State and Federal Contributions

State and federal contributions to the Plan are earmarked only for the portion of the Plan that contributes to the recovery of covered species. State and federal contributions cannot be used for the mitigation component of the Plan.

Estimated contributions by the state or federal government must be measured in terms of acreage rather than dollars. To address this, Plan funding source assumptions from **Table 9-5** were converted to acreage based on the overall average cost per acre of reserve land. This calculation assumes that the state and federal agencies will not be acquiring and managing the land themselves (e.g., in a new State Ecological Reserve or National Wildlife Refuge).

The contribution of state and federal funds, which is tracked by acres of land acquired, assumes that the Implementing Entity will administer, manage, and monitor the land itself and pay all of those costs. If the state or federal agency acquires and manages the land, the contribution in acres from the state or federal agency will be adjusted to account for this additional financial contribution. If all costs to restore, enhance, manage, and monitor the land are assumed by the state or federal agency, the $115 million contribution would be the equivalent of 6,424 fully-managed acres[33]. If the state or federal agency assumes some but not all responsibility for management and monitoring then the land acquisition

[33] $115 million / $611 million * 34,153 acres = 6,424 acres. The denominator = $657 million total cost including endowment fund balance at end of permit term, minus the $3 million of plan preparation costs and the $43 million to manage County Parks lands incorporated into the Reserve System.

contribution will be accounted for by mutual agreement between the Wildlife Agencies and the Implementing Entity. As with other partners, all land acquired by state or federal agencies must be managed in accordance with the standards of the Habitat Plan.

If the state and/or federal governments contribute a portion of the costs of a land acquisition, the state and/or federal contribution will be measured as a share of the overall acquired acreage that is in proportion to the state and federal share of the overall costs of the acquisition.

State and Federal Funding Sources

Federal Endangered Species Act Section 6 Program

USFWS's Cooperative Endangered Species Conservation Fund authorized under Section 6 of the ESA[34] is likely to provide a significant source of grant funding for the Habitat Plan. USFWS annually provides significant funds to local jurisdictions developing regional HCPs. The Section 6 grant program is divided into three funding categories: HCP Assistance (for planning), HCP Land Acquisition, and Recovery Land Acquisition Grants. Grants are applied for and administered by CDFG. The Habitat Plan has already received four grants from the HCP Assistance program totaling $1.3 million. During implementation, the Plan will be eligible for HCP Land Acquisition grants.

Since 2002, USFWS has made available, on average, $52.5 million in land acquisition funds nationally. Of this, an average of approximately 44%—nearly $23 million—was dedicated annually for land acquisition for HCPs in California[35]. Since 2002, California has received over $160 million in land acquisition funding for approved HCPs and NCCPs, by far the largest share of any state.

State Funding Sources

As described in **Table 9-13**, there are a variety of sources available for state funding, including existing California propositions (e.g., Proposition 84). Proposition funding for the Habitat Plan can come from a variety of sources including the Wildlife Conservation Board, CalFed Bay-Delta Program, and California Department of Parks and Recreation. More state bond measures for open space preservation and management are expected to be issued as California propositions during the 50-year term of the Plan. For example, Proposition 84 was passed by California voters in the November 2006 General Election by a margin of 53.7%. This bond provides funding for water, park, and natural projects, including $90 million for certain NCCPs, and $108 million for the San

[34] The Fund is commonly referred to as the "Section 6" grant program.
[35] Funding levels to California have held steady for at least eight years. Annual funding to California reached a peak in FY 2007, when 67% of all HCP land acquisition funding went to the state.

Francisco Bay Conservancy Program. Additional bonds similar to Proposition 84 and with approved NCCPs, including the Santa Clara Valley Habitat Plan, are expected to be put forward to the voters several times during the 50-year permit term.

Mitigation and Conservation Components

As discussed in Chapter 1, NCCPs are required to conserve species and their habitats. To achieve this standard, this conservation strategy exceeds typical project mitigation requirements. Although the Plan provides a single conservation strategy to mitigate impacts and conserve covered species, it is important to roughly delineate the mitigation obligations of the Plan from the conservation components because USFWS and CDFG can only fund land acquisition that contributes to the conservation component of the Plan (i.e., they cannot subsidize mitigation).

As described above, development fees were determined, in part, on the basis of mitigation requirements without the Habitat Plan. Preservation ratios were estimated for all terrestrial land cover types based on previously accepted mitigation ratios proposed on a project-by-project basis to offset impacts to occupied habitat for the covered species. Based on these ratios, the overall mitigation component of the Plan is estimated at approximately 56% of the land acquisition (i.e., 56% of the 36,100 acres of new land acquired = 20,216 acres that are administered, managed, and monitored).

This analysis is provided only for convenience to help delineate eligibility for state and federal grant funding for the conservation portion of the Plan. The calculation above cannot be applied as a project mitigation ratio because it was calculated based on the substantial economies of scale available in this Plan (e.g., preserving large blocks of land that support many covered species).

The Habitat Plan is a single plan that must be implemented as a whole. Permits will be issued on the basis of implementation of the entire Plan. The development fees will cover the responsibilities and requirements of the Implementing Entity and participating local jurisdictions to both mitigate their impacts and conserve in the study area. State and federal contributions; continuing local, state, and federal conservation efforts; and funding from private competitive grants can contribute to the conservation component of the Plan.

9.4.4 Funding Adequacy

As shown in **Table 9-5**, funding sources will meet all expected costs of the Habitat Plan. The funding sources described in this chapter have been estimated conservatively. That is, actual funding from local, state, and federal sources may exceed these projections. For example, County Parks may acquire more land than is predicted that would contribute to the Reserve System. Alternatively, additional revenue may be secured from fees on Participating Special Entities.

Temporary impact fees may also exceed projections if many applicants choose to pay all applicable development fees in full rather than try to estimate the frequency of their activities during the permit. Despite these conservative assumptions and additional revenue sources, revenue may fall short of costs. This section further discusses the adequacy of Plan funding.

Additional Funds Needed for Management or Monitoring

The contingency fund is primarily intended to offset land management or monitoring costs that are higher than predicted by this Plan on a short-term basis. If this fund is inadequate to offset these costs, or if costs are predicted to exceed revenue on a long-term basis, then the Implementing Entity will consider whether to adjust management and monitoring requirements without jeopardizing meeting Habitat Plan requirements, or to raise revenue to offset the funding shortfall. When feasible, the Implementing Entity will make reasonable adjustments to revenue to meet the obligations of the Habitat Plan. Some changes may require a minor or major amendment to the Habitat Plan. See Chapter 10 for rules regarding changes to the Habitat Plan.

Actions Required Should Land Acquisitions not Keep Pace with Impacts

The NCCP Act requires that conservation keep pace with development in "rough proportionality." The Stay-Ahead provision of the Plan (see Chapter 8) is intended to ensure that land acquisition and enhancement, restoration, and creation stay within 10% deviation of impacts[36]. Meeting this requirement, however, depends on the steady acquisition of land from willing sellers.

The nature of land acquisition is such that assembly of the Reserve System is not likely to be accomplished in a constant or predictable fashion. It is expected that large (500 acres or more) land acquisitions will comprise the bulk of the total acreage of the Reserve System. Acquisition of large parcels (or combinations of parcels) is typically more complex and may take longer to realize than acquisition of small parcels. Therefore, additions to the Reserve System are expected to be episodic. As a result, the Implementing Entity may be behind in land acquisition relative to impacts for short periods of time while large land acquisition deals are being processed. Over the long term, larger land acquisitions will save money because of their typically lower price per acre and lower per acre land transactions costs.

The Implementing Entity will be responsible for performing the conservation actions necessary to comply with the Stay-Ahead provision, as described in

[36] The 10% deviation allowance does not apply to covered plants. Plant conservation measures will always precede impacts, with the exception of the Coyote ceanothus (Section 5.4.11).

Chapter 8. If the Implementing Entity determines it is at risk of non-compliance with the Stay-Ahead provision for land acquisition (e.g., greater than 10% deviation from the requirements without reasonable land acquisitions in the pipeline), the Implementing Entity may notify the other Permittees that it is necessary to temporarily require project proponents to provide land instead of paying a fee, unless the Permittee has previously accrued sufficient credits to offset any fee otherwise due. If the Stay-Ahead provision is not satisfied for land acquisition for any land cover type based on the criteria in Section 8.6.1 *Stay-Ahead Provision* of Chapter 8, the Implementing Entity must notify the other Permittees that it is necessary to temporarily require project proponents to provide land instead of paying a fee unless the Wildlife Agencies agree, after conferring with the Implementing Entity, that a different plan of action devised with the Implementing Entity will remedy the situation and it is not necessary to require project proponents to provide land instead of paying a fee. If the Implementing Entity determines that it is at risk of non-compliance with the Stay-Ahead provision for other components of the conservation strategy besides land acquisition (e.g., habitat restoration), the Implementing Entity will confer with the Wildlife Agencies immediately to determine the best course of action.

If the Implementing Entity initiated the requirement due to its own determination that the Plan was at risk of non-compliance, the requirement to provide land instead of a fee will be lifted (i.e., it will revert back to an option) as soon as the Implementing Entity determines that it is no longer at risk of non-compliance with the Stay-Ahead provision. If the requirement is imposed by the Wildlife Agencies as a result of non-compliance with the Stay-Ahead provision, the requirement will be lifted as soon as the Implementing Entity demonstrates in writing to the reasonable satisfaction of the Wildlife Agencies that the Plan is in compliance with the Stay-Ahead provision.

Actions Required Should Development Fee Funding Fall Short of Expectations

This chapter describes the funding expected from development fees from the implementation of covered activities by public agencies (the Permittees) and private developers. These estimates are based on long-term projections of development based on historic patterns and the approval planning documents of local jurisdictions. The pace of development has slowed considerably in the study area as a result of the 2008–2009 economic recession. As a result, the pace of development is not expected to reach pre-2008 levels for many years. Revenue from covered activities during the first 5 to 10 years of implementation may fall short of expectations.

Revenue from non-fee funding sources could offset the shortfall in fee funding in the short term, providing enough funding for land acquisition early in the Plan. However, most non-fee funding cannot be used for land management, monitoring, or administrative costs associated with the Reserve System. These costs are dependent on fee funding. In the short term, if fee funding cannot keep pace with the operations and management needs of the Reserve System, the

Implementing Entity will consider the following options in consultation with the Wildlife Agencies:

- Continued acquisition of land from willing sellers for the Reserve System to take advantage of lower land costs but deferral of non-essential management and monitoring of these lands for up to 5 years or when development fee revenue is sufficient, whichever comes first (see below for additional details on this option).
- Identifying new funding sources that will cover the costs of operations and maintenance of the Reserve System until fee revenue increases to offset these costs over the long term.
- With the approval of the Wildlife Agencies, defer implementation tasks that are not critical for compliance with the permits, IA, and Habitat Plan, some of which are included in **Table 8-1**.
- Other options that meet the biological goals and objectives of the Plan and are consistent with the permits, IA, and Plan.

As described in Chapter 5, if development fee funding falls short of expectations but the Reserve System is expanding as fast or faster than it should to meet the Stay Ahead requirement, the Implementing Entity may defer management of these lands until development fee funding (or other sources) are available. Specifically, if needed the Implementing Entity may limit management to essential management tasks and defer non-essential management tasks for up to 5 years from the purchase of the first parcel of each reserve unit, or when development fees become available, whichever comes first. Essential management tasks are defined as those tasks necessary to ensure that the condition of the reserve unit does not degrade below the existing condition at the time it was incorporated into the Reserve System in terms of natural land cover and covered species habitat. Existing conditions will be documented by the Implementing Entity through the pre-acquisition assessment and the site inventory, described in Chapters 7 and 8. Management in response to changed circumstances (i.e., remedial actions described in Chapter 10) cannot be deferred.

Over the entire permit term, fee revenue may also fall short of expectations if fewer covered activities occur than assumed under the Plan. Although unlikely, this shortfall will make it difficult for the Permittees to meet their conservation obligations. If it appears that take authorized under the permits will fall short of expectations, substantially reducing fee revenue, the Implementing Entity and other Permittees will work with the Wildlife Agencies to extend the term of the permits to allow the use of the authorized take and allow full implementation of the Plan. As described above, the Local Partners are not expected to, nor are they required to, utilize local general funds for Habitat Plan implementation in the event of funding shortfalls as a result of less fee revenue than expected, either in the short term or the long term.

Alternatively, if revenues fall far short of expectations and it is unlikely that the Permittees will meet their permit obligations they may apply to reduce the authorized take and reduce the permit obligations. Any permit term extension or

request for reductions in Plan obligations will follow the requirements for a major amendment described in Chapter 10.

Actions Required Should Non-Fee Funding Fall Short of Expectations

This chapter describes the non-fee funding sources that are being committed or are expected to be provided by local, state, and federal agencies (see Sections 9.4.2 *Local Funding* and 9.4.3 *State and Federal Funding*). These commitments and expectations are based on conservative assumptions and a track record of providing similar funding locally or to other HCPs and NCCPs in northern California. Despite these assumptions, it is possible that these non-fee funding sources will fall short of expectations. These local sources are intended to contribute to conservation actions (i.e., not mitigation). If these funding sources fall short, then the Implementing Entity may have difficulty meeting its obligation to provide for the conservation of some of the covered species.

In the event of shortfalls in non-fee funding, the Implementing Entity will make reasonable adjustments to expenditures to meet the obligations of the Habitat Plan. If these adjustments are inadequate to address the shortfall, the Implementing Entity will consult with the Wildlife Agencies regarding the best course of action. As described above, the Local Partners are not expected to, nor are they required to, utilize local general funds for Habitat Plan implementation in the event of funding shortfalls as a result of less non-fee revenue than expected. Actions considered will include reducing take authorization and conservation obligations in proportion to the funding shortfall. Such reductions would need to follow the major amendment process described in Chapter 10.

Funding for Post-Permit Management and Monitoring

After the permit term, all of the Permittees are obligated to continue to protect, manage, and maintain the Reserve System[37]. This includes adaptive management and monitoring at a level sufficient to determine whether management is effective. Other obligations, however, disappear after the permit term. For example, the Permittees are no longer obligated to annually report the status of the Plan to the Wildlife Agencies. Three to 5 years prior to the termination of the permit, the Permittees will determine how to handle the continuing obligations of the Implementing Entity with the approval of the Wildlife Agencies. Preservation, enhancement, restoration, and creation obligations will also be completed prior to the end of the permit term and will not continue post-permit. Remedial measures and contingency also no longer need to be funded after the permit term.

[37] The Implementing Entity may or may not exist after the permit term. Regardless, all Permittees have the obligation to maintain the Reserve System after the permit term.

Detailed assumptions regarding post-permit costs are presented in **Appendix G**. Annual costs to operate and maintain the Reserve System in perpetuity are estimated to be approximately 64% of the annual cost for program administration estimated during Years 46–50, 80% of reserve management and maintenance costs, and 34% of monitoring costs (**Table 9-4**). Total post-permit costs are estimated to be approximately $2.9 million annually. Actual long-term costs may be lower if the Implementing Entity can develop streamlined procedures for management and monitoring during the permit term or reduce administrative costs. Responsibility for funding long-term management and monitoring rests solely with the Permittees.

Funding provided by interest on the endowment is expected to fully fund post-permit costs. Any shortfalls in the endowment during the permit term will be identified by the 5-year funding assessments conducted by the Implementing Entity. If the endowment is not growing fast enough to reach its target size, then the endowment fee portion of the development fees will be increased to make up the shortfall. With these built-in safeguards in the endowment, post-permit funding is expected to be adequate to fully offset post-permit costs of management and monitoring.

Table 9-1. Summary of Habitat Plan Implementation Cost Estimate

Final Plan

2010 dollars

Total Budget (rounded to the nearest ten thousand)

	Total Cost per Implementation Period (Years)												
Budget Category	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	**Total**	**Annual Average**
Land Acquisition	$3,730,000	$27,380,000	$31,020,000	$31,020,000	$31,020,000	$31,020,000	$31,020,000	$31,020,000	$31,020,000	$30,690,000	$0	$278,940,000	$5,580,000
Reserve Management and Maintenance	$0	$3,750,000	$8,580,000	$8,920,000	$10,140,000	$9,940,000	$10,920,000	$10,720,000	$10,660,000	$10,990,000	$10,740,000	$95,360,000	$1,910,000
Monitoring, Research, and Scientific Review	$0	$2,140,000	$2,180,000	$2,600,000	$2,410,000	$2,810,000	$2,960,000	$3,350,000	$3,600,000	$4,040,000	$4,140,000	$30,230,000	$600,000
Western Burrowing Owl Conservation Strategy	$0	$320,000	$700,000	$580,000	$810,000	$770,000	$1,020,000	$920,000	$1,210,000	$1,100,000	$1,140,000	$8,570,000	$170,000
Habitat Restoration/Creation	$0	$10,420,000	$10,750,000	$11,000,000	$11,230,000	$11,330,000	$11,390,000	$11,490,000	$11,340,000	$1,850,000	$1,830,000	$92,630,000	$1,850,000
Program Administration	$330,000	$3,740,000	$3,980,000	$4,220,000	$4,350,000	$4,590,000	$4,650,000	$4,800,000	$4,970,000	$5,170,000	$5,090,000	$45,890,000	$920,000
Contingency Fund	$110,000	$1,010,000	$1,280,000	$1,300,000	$1,330,000	$1,340,000	$1,380,000	$1,380,000	$1,400,000	$1,410,000	$480,000	$12,420,000	$250,000
Total	$4,170,000	$48,760,000	$58,490,000	$59,640,000	$61,290,000	$61,800,000	$63,340,000	$63,680,000	$64,200,000	$55,250,000	$23,420,000	$564,040,000	$11,280,000

Capital Budget (rounded to the nearest ten thousand)

	Total Cost per Implementation Period (Years)												
Budget Category	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	**Total**	**Annual Average**
Land Acquisition: acquisition and site improvements	$3,600,000	$26,320,000	$29,880,000	$29,880,000	$29,880,000	$29,880,000	$29,880,000	$29,880,000	$29,880,000	$29,560,000	$0	$268,640,000	$5,370,000
Reserve Management and Maintenance: vehicles, equipment, and facilities	$0	$1,510,000	$1,520,000	$1,630,000	$2,310,000	$1,840,000	$2,490,000	$2,020,000	$2,060,000	$2,150,000	$1,900,000	$19,430,000	$390,000
Monitoring & Research: equipment and vehicles	$0	$10,000	$10,000	$20,000	$10,000	$20,000	$10,000	$20,000	$10,000	$20,000	$10,000	$140,000	$3,000
Western Burrowing Owl Conservation Strategy	$0	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$100,000	$2,000
Habitat Restoration/Creation: construction, office equipment, and vehicles	$0	$9,400,000	$9,400,000	$9,420,000	$9,410,000	$9,430,000	$9,410,000	$9,430,000	$9,420,000	$50,000	$30,000	$75,400,000	$1,510,000
Program Administration: equipment purchases	$20,000	$80,000	$50,000	$70,000	$50,000	$90,000	$50,000	$70,000	$50,000	$90,000	$50,000	$670,000	$10,000
Contingency, land acquisition and site improvements	$110,000	$790,000	$900,000	$900,000	$900,000	$900,000	$900,000	$900,000	$900,000	$890,000	$0	$8,090,000	$160,000
Total	$3,730,000	$38,120,000	$41,770,000	$41,930,000	$42,570,000	$42,170,000	$42,750,000	$42,330,000	$42,330,000	$32,770,000	$2,000,000	$372,470,000	$7,445,000
											Land acquisition cost per acre acquired	**$7,400**	
											Restoration cost per acre restored (not including stream restoration)	**$81,000**	

Operational Budget (rounded to the nearest ten thousand)

	Total Cost per Implementation Period (Years)												
Budget Category	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	**Total**	**Annual Average**
Land Acquisition: transaction costs	$130,000	$1,070,000	$1,140,000	$1,140,000	$1,140,000	$1,140,000	$1,140,000	$1,140,000	$1,140,000	$1,140,000	$0	$10,320,000	$210,000
Reserve Management and Maintenance: facility, vehicle, and equipment maintenance and personnel	$0	$2,240,000	$7,060,000	$7,290,000	$7,830,000	$8,100,000	$8,440,000	$8,700,000	$8,610,000	$8,840,000	$8,840,000	$75,950,000	$1,520,000
Monitoring, Research, and Scientific Review	$0	$2,130,000	$2,170,000	$2,580,000	$2,400,000	$2,790,000	$2,950,000	$3,330,000	$3,600,000	$4,020,000	$4,140,000	$30,110,000	$600,000
Western Burrowing Owl Conservation Strategy	$0	$300,000	$690,000	$580,000	$790,000	$760,000	$1,010,000	$910,000	$1,200,000	$1,100,000	$1,130,000	$8,470,000	$170,000
Habitat Restoration/Creation: vehicle maintenance and personnel, long-term management/monitoring	$0	$1,020,000	$1,350,000	$1,580,000	$1,820,000	$1,900,000	$1,980,000	$2,060,000	$1,930,000	$1,800,000	$1,800,000	$17,240,000	$340,000
Program Administration: personnel, legal and financial assistance, insurance, ED's discretionary budget, in-lieu funding	$310,000	$3,660,000	$3,930,000	$4,150,000	$4,300,000	$4,490,000	$4,600,000	$4,730,000	$4,920,000	$5,080,000	$5,040,000	$45,210,000	$900,000
Operating Contingency Fund	$0	$220,000	$380,000	$400,000	$440,000	$440,000	$480,000	$490,000	$500,000	$520,000	$480,000	$4,350,000	$90,000
Total	$440,000	$10,640,000	$16,720,000	$17,720,000	$18,720,000	$19,620,000	$20,600,000	$21,360,000	$21,900,000	$22,500,000	$21,430,000	$191,650,000	$3,830,000
Average Annual Cost per Acre Managed, New Reserve System		**$553**	**$329**	**$237**	**$191**	**$162**	**$144**	**$129**	**$116**	**$107**	**$101**		
Average Annual Cost per Acre Managed, Existing Open Space		**$2**	**$71**	**$71**	**$71**	**$71**	**$71**	**$71**	**$71**	**$71**	**$72**		

Notes:
Detail may not add to total due to rounding at various stages of the calculations.

Table 9-2. Santa Clara Valley Habitat Plan Reserve System Summary

	Acres
Permanent Impact [1]	17,975
New Acquisition for the Reserve System	
Mitigation[2]	20,112
Enhancement	15,988
Subtotal[3]	*36,100*
Existing Open Space Contributed to the Reserve System[4]	
County of Santa Clara Parks and Recreation Department	12,291
Santa Clara County Open Space Authority	1,000
Subtotal	*13,291*
Total Estimated Minimum Size of the Reserve System[5]	**49,391**

[1] See **Table 4-2**.

[2] See *Development Fee Nexus Study* for calculation of mitigation requirement for Reserve System.

[3] Includes 1,100 acres of interim conservation lands (acquisition between signing of the 2007 Planning Agreement and issuance of Plan permits) by County Parks (see **Table 5-5)**. To the extent that these are non-wetland land covers this land could be mitigation in lieu of the County's development fee obligation for County covered activities (not private development). Otherwise these lands would apply to the enhancement component of the Reserve System.

[4] See **Table 5-5.**

[5] The total size of the Reserve System will be at least 46,496 acres and up to an estimated 46,920 acres. The acreage 49,391 is a sum of acres of assumed acquired lands plus existing open space. The assumption for acquired acres is based on a hypothetical Reserve System design that meets all of the minimum acquisition requirements as described in **Table 5-13**.

Table 9-3. Summary of Annual Management and Monitoring Costs per Acre

2010 dollars

Total Budget (rounded to the nearest ten thousand)

Budget Category	0	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
Reserve Management and Maintenance	$0	$800,000	$1,840,000	$1,880,000	$2,180,000	$2,130,000	$2,380,000	$2,330,000	$2,370,000	$2,420,000	$2,370,000
Total Reserve Management Cost	$0	$800,000	$1,840,000	$1,880,000	$2,180,000	$2,130,000	$2,380,000	$2,330,000	$2,370,000	$2,420,000	$2,370,000
Total Reserve Management Cost Per Acre on Land Acquired	na	$211	$127	$88	$86	$66	$66	$55	$49	$45	$44
Total Reserve Management Cost Per Acre on Existing Open Space	na	$0	$66	$66	$66	$66	$66	$66	$66	$66	$66
Monitoring, Research, and Scientific Review	$0	$460,000	$490,000	$580,000	$550,000	$650,000	$700,000	$780,000	$850,000	$940,000	$960,000
Total Monitoring Cost Per Acre on Land Acquired	na	$113	$56	$45	$32	$31	$28	$27	$26	$25	$26
Total Monitoring Cost Per Acre on Existing Open Space	na	$2	$5	$5	$5	$5	$5	$5	$5	$5	$6
Land Acquired and Managed for Reserve System	-	3,795	7,590	11,384	15,179	18,974	22,769	26,563	30,358	34,153	34,153
Existing Open Space Managed for Reserve System	-	13,291	13,291	13,291	13,291	13,291	13,291	13,291	13,291	13,291	13,291
Total Reserve Acres	**-**	**17,086**	**20,881**	**24,675**	**28,470**	**32,265**	**36,060**	**39,854**	**43,649**	**47,444**	**47,444**

Assumptions / Notes:

Management activities on existing open space begin in year 6.

Monitoring activities on existing open space begin in year 3.

Detail may not add to total due to rounding at various stages of the calculations.

Table 9-4. Summary of Habitat Plan Budget After Permit Term

	Avg. Annual Cost After Permit Term[1]		Post-Permit Budget as a Percent of Year 46-50 Annual Costs
Total Budget	All Reserve Lands	Restored Wetlands	
Land Acquisition	$0	$0	--
Reserve Management and Maintenance	$1,710,000	$36,000	81%
Monitoring, Research, and Scientific Review	$280,000	$27,000	37%
Western Burrowing Owl Conservation Strategy	$230,000	$0	100%
Habitat Restoration/Creation	$0	$0	0%
Program Administration	$650,000	$0	64%
Contingency Fund	$0	$0	0%
Total	**$2,870,000**	**$63,000**	**63%**
Capital Budget			
Land Acquisition: acquisition and site improvements	$0	$0	--
Reserve Management and Maintenance: vehicles, equipment, and facilities	$120,000	$0	32%
Monitoring & Research: equipment and vehicles	$600	$0	30%
Western Burrowing Owl Conservation Strategy	$2,000	$0	100%
Habitat Restoration/Creation: construction, office equipment, and vehicles	$0	$0	0%
Program Administration: equipment purchases	$10,000	$0	100%
Contingency, land acquisition and site improvements	$0	$0	0%
Total	**$132,600**	**$0**	**33%**
Operational Budget			
Land Acquisition: transaction costs	$0	$0	--
Reserve Management and Maintenance: facility, vehicle, and equipment maintenance and personnel	$1,590,000	$36,000	92%
Monitoring, Research, and Scientific Review	$280,000	$27,000	37%
Western Burrowing Owl Conservation Strategy	$230,000	$0	100%
Habitat Restoration/Creation: vehicle maintenance and personnel	$0	$0	0%
Program Administration: personnel, legal and financial assistance, insurance, ED's discretionary budget, in-lieu funding	$640,000	$0	63%
Operating Contingency Fund	$0	$0	0%
Total	**$2,740,000**	**$63,000**	**65%**
Land Acquired and Managed for Reserve System[2]	34,153		
Existing Open Space Managed for Reserve System	13,291		
Total Acres Managed / Wetlands Restored	**47,444**	**506**	
Average Annual Cost per Acre Managed, New Reserve System	$50	$120	
Average Annual Cost per Acre Managed, Existing Open Space	$70		

Notes:

Detail may not add to total due to rounding at various stages of the calculations.

[1] For details on the assumptions for these calculations, see the Cost Model in Appendix G, sheets "9-4 SummaryPostPermitBudget" and "G-9 Assumptions_PostPermit."

[2] Includes the total acres of preserved and restored or created land cover types that will be managed in perpetuity.

Table 9-5. Funding Sources

Funding Source		Final Plan Amount	% of Funding	Source
Development Fees				
Land Cover and Nitrogen Deposition Fees				
Private Development (all jurisdictions)	$	163,440,000	25%	Local
County of Santa Clara[1]	$	-	0%	Local
City of San Jose	$	2,000,000	0%	Local
City of Gilroy	$	80,000	0%	Local
City of Morgan Hill	$	290,000	0%	Local
Santa Clara Valley Water District	$	8,090,000	1%	Local
Santa Clara Valley Transportation Agency	$	1,560,000	0%	Local
Serpentine Fee[1]	$	29,270,000	4%	Local
Wetland Fee (private development and public agencies)	$	77,600,000	12%	Local
Burrowing Owl Fee	$	8,830,000	1%	Local
Temporary Impact Fees (all public agencies)	$	16,010,000	2%	Local
Endowment Fee Component	$	36,500,000	6%	Local
Plan Preparation Fee Component[2]	$	3,010,000	0%	Local
Participating Special Entity Fees	$	17,000,000	3%	Local
Total Fee Funding	$	363,680,000	55%	
Non-Fee Funding				
Other Local Funding				
County of Santa Clara Parks and Recreation Land Acquisition[1,3]	$	45,980,000	7%	Mixed[7]
Land Acquisition by Local Land Agencies, Non-Profits, and Foundations[3,4]	$	77,270,000	12%	Mixed[7]
Interest Income on Permit Period Funding[5]	$	2,180,000	0%	Local
Endowment Investment Income[6]	$	53,640,000	8%	Local
Total Other Local Funds	$	179,070,000	27%	
State and Federal Funding				
New Wildlife Agency Funds (Section 6, etc.)	$	115,000,000	17%	Mixed
Total Non-Fee Funding	$	294,070,000	45%	
Total Funding and Plan Costs				
Total Funding	$	657,750,000	100%	
Plan Implementation Budget (excl. Plan Preparation and Endowment)	$	564,040,000		
Plan Preparation Costs	$	3,010,000		
Endowment Balance at End of Permit Period	$	90,140,000		
Total Cost of Plan and Endowment	$	657,190,000		
Surplus / (Deficit)	$	560,000		

[1] Development fees except for permanent and temporary wetland mitigation fees for County of Santa Clara covered activities (County Parks and County Roads and Airports) are excluded because fees would be more than offset by County Parks acquisition of land for Reserve System (estimated at 5,950 acres).

[2] Net plan preparation costs were reduced by 20% to exclude estimated costs associated with recovery and limit costs for the purposes of the development fee to mitigation-related planning only.

[3] Acquisition costs based on average per acre costs for Plan including transaction costs.

[4] Cost of land to be provided agencies and organizations that acquire and preserve land in Santa Clara County (estimated at 10,000 acres) such as the Santa Clara County Open Space Authority, the Peninsula Open Space Trust, The Nature Conservancy, The Silicon Valley Land Conservancy, David and Lucille Packard Foundation, the Gordon and Betty Moore Foundation, and others.

[5] Estimated interest earned on permit term operating fund balances generated by development fees. Based on 3% annual interest (recommended by County of Santa Clara Finance Department) applied to a fund balance estimated to equal 20% of average annual total development fee revenue.

[6] Based on an assumed real interest rate of 3.25% over inflation applied to endowment fee revenue, consistent with projected returns on long-term endowment investment funds held for the California Department of Fish and Game by the National Fish and Wildlife Foundation.

[7] Funding sources may be a mix of local sources, state grants, and federal grants from agencies such as the California Coastal Conservancy and State Wildlife Conservation Board.

Table 9-6. Land Cover Development Fees

Development Fee Type[1,2]	Unit	Projected Initial Fee Amount[3]	Alternative Payment Mechanisms[4]
Land Cover Fee			
Zone A: Mostly natural lands	per acre	$ 15,416	Land in lieu; mitigation bank credit
Zone B: Mostly agricultural and valley floor rural residential lands	per acre	$ 10,688	Land in lieu; mitigation bank credit
Zone C: Small vacant sites between 0.5 and 10 acres surrounded by urban development	per acre	$ 3,905	Land in lieu; mitigation bank credit
Serpentine Fee	per acre	$ 50,166	Land in lieu (must be serpentine)
Nitrogen Deposition Fee	per new vehicle trip	$ 3.60	Other mechanism determined during implementation
Burrowing Owl Fee	per acre	$ 50,438	Land in lieu (must be occupied nesting habitat)
Wetland Fee			
Willow Riparian Forest and Mixed Riparian	per acre	$ 139,708	Wetland mitigation in lieu; mitigation bank credit
Central California Sycamore Woodland	per acre	$ 255,182	Wetland mitigation in lieu; mitigation bank credit
Freshwater Marsh	per acre	$ 171,322	Wetland mitigation in lieu; mitigation bank credit
Seasonal Wetlands	per acre	$ 374,842	Wetland mitigation in lieu; mitigation bank credit
Pond	per acre	$ 153,321	Wetland mitigation in lieu; mitigation bank credit
Stream	per linear ft.	$ 588	Wetland mitigation in lieu; mitigation bank credit
Temporary Impact Fee			
Land Cover	per acre	Varies[5]	Land in lieu; mitigation bank credit
Serpentine	per acre	Varies[5]	Land in lieu (must be serpentine)
Burrowing Owl	per acre	Varies[5]	Land in lieu (must be occupied nesting habitat)
Wetland	per acre	Varies[5]	Wetland mitigation in lieu; mitigation bank credit

[1] See Chapter 9 for details of each development fee and in what circumstances it is required.

[2] The Endowment fee and Plan Preparation fee are included in the appropriate Habitat Plan fees listed in this table as described in Chapter 9.

[3] Projected initial fees would apply only in the first year of Plan implementation. All development fees would be adjusted (up or down) on an annual basis by a date determined by the Implementing Entity's Governing Board within the first 6 months of Plan implementation.

[4] All fees may be paid in cash or, at the discretion of the Implementing Entity, through implementation of conservation actions.

[5] Temporary fee varies based on duration of impact. See Chapter 9 text for details.

Table 9-7a. Habitat Plan Land Cover Development Fees and Estimated Revenue

Item	Fee Zone[1] Zone A: Mostly Natural Lands	Zone B: Mostly Agricultural and Rural Residential Lands	Zone C: Small Vacant Sites	Serpentine Fee [2]	Total
Land Cover Fee at Start of Permit Term[3]	$13,630 per acre	$9,450 per acre	$3,453 per acre	$44,355 per acre	
Endowment Fee Component at Start of Permit Term[3]	$1,595	$1,106	$404	$5,190	
Plan Preparation Cost Recovery Fee Component at Start of Permit Term[3]	$191	$132	$48	$621	
Total Fee per Acre	$15,416	$10,688	$3,905	$50,166	
Estimated Approximate Cost per Housing Unit in Cities[4]	$3,854	$2,672	$976	$16,396	
Estimated Approximate Cost per Housing Unit in County (Low/High)[5]	$7,708 / $46,248	$5,344 / $32,064	Not applicable	$32,791 / $196,746	
Estimated Acres of Impact in Fee Zones (Zone A, B, and C) over the Permit Term[6]	5,670 acres	11,400 acres	600 acres	675 acres	17,670 acres[7]
Estimated Land Cover Fee Revenue[8,9] (2010 dollars) over the Permit Term	$59,320,000	$104,470,000	$1,550,000	$29,270,000	$194,610,000

Notes:

1 As defined in **Figure 9-1** and in Chapter 9. Zone names are provided only as a general guide to dominant land cover (**Figure 9-2**). The nitrogen deposition fee is also assessed in every zone for applicable covered activities.

2 Serpentine fee will be charged in addition to the base land cover fee for the zone where the project is located for any impacts in serpentine land cover types (serpentine bunchgrass grassland, serpentine chaparral, serpentine seep, and serpentine rock outcrop). Serpentine land cover types primarily occur in Zone A.

3 See *Development Fee Nexus Study* for fee calculation methods. All fees will be adjusted for inflation or deflation according to **Table 9-12** and the terms of the Habitat Plan; consult planning staff with your participating jurisdiction for the latest Habitat Plan fees.

4 Assumes average housing density of 4.0 units per acre for Zone A, B, and C. This is an estimate only; fees will be charged on a per acre basis, not on a per unit basis.

5 Low estimate assumed a 0.5 acre lot; fee paid on entire parcel. High estimate assumes 3.0 acres of development envelope on a parcel size of 10 acres or more; fee paid on the size of the development envelope.

6 Excludes impacts associated with conservation strategy implementation. Implementation of the conservation strategy is expected to have net benefits for covered species and the Implementing Entity will not pay fees to itself for its impacts.

7 Zone A, B and C impacts. Serpentine land cover impacts are already included in this total for Zone A.

8 Estimated revenue does take into account credit that might be applied to public agencies that owe development fees but also contribute funding for conservation (e.g., County Parks). See text for details.

8 Does not include projected revenue from endowment and plan preparation fee components that are shown separately in **Table 9-5**.

Table 9-7b. Habitat Plan Nitrogen Deposition Fee and Estimated Revenue

Item	Amount
Nitrogen Deposition Fee per New Daily Vehicle Trip at Start of Permit Term (applied in all Fee Zones) [1]	$3.19
Endowment Fee per New Daily Vehicle Trip at Start of Permit Term (applied in all Fee Zones)	$0.37
Plan Preparation Fee per New Daily Vehicle Trip at Start of Permit Term (applied in all Fee Zones)	$0.04
Total Fees Charged per New Daily Vehicle Trip	$3.60
Plan Area Average Daily Trip Growth During Permit Term[2]	3,176,000
Projected Nitrogen Deposition Fee Revenue (2010 dollars)[3]	$10,120,000
Approximate Cost per Single Family Housing Unit[4]	$34

Notes:

[1] See text and **Table 9-10** for fee calculation methods. All fees will be adjusted for inflation or deflation according to **Table 9-12** and the terms of the Habitat Plan; consult planning staff with your participating jurisdiction for the latest Habitat Plan fees.

[2] Estimate only; fees will be charged based on new average daily vehicle trips.

[3] Does not include revenue from endowment and plan preparation fee components that are shown separately in **Table 9-5**.

[4] Assumes 9.57 average daily trips per single family housing unit.

Table 9-8. Endowment Fee Calculations

	All Reserve Lands	Restored Wetland Only
Annual Endowment Fund Revenue Needed During Permit Term (2010$)	$ 720,000	$ 10,000
Permit Term (years)	50	50
Endowment Fee Revenue Needed During Permit Term (rounded)	$ 36,000,000	$ 500,000
Total Projected Development Fee Revenue[1]	$ 307,170,000	$ 91,550,000
Endowment Cost Factor	0.117	0.005
Endowment Cost Factor for All Reserve Lands Excluding Restored Wetland		0.117
Endowment Cost Factor for Restored Wetland		0.122

Fee Category	Base Fee Amount	Endowment Cost Factor	Fee Component
Land Cover Fees (per acre)			
Zone A	$ 13,630	0.117	$ 1,595
Zone B	9,450	0.117	1,106
Zone C	3,453	0.117	404
Serpentine Fee (per acre)	$ 44,355	0.117	$ 5,190
Nitrogen Deposition Fee (per vehicle trip)	$ 3.19	0.117	$ 0.37
Burrowing Owl Fee (per acre)	$ 44,596	0.117	$ 5,218
Wetland Fee (per acre, per foot for streams)			
Willow Riparian Forest and Scrub	$ 122,982	0.122	$ 15,004
Central California Sycamore Alluvial Woodland	224,632	0.122	27,405
Mixed Riparian Forest and Woodland	122,982	0.122	15,004
Coastal and Valley Freshwater Marsh	150,812	0.122	18,399
Seasonal Wetland	329,966	0.122	40,256
Pond	134,965	0.122	16,466
Streams	518	0.122	63
Temporary Fee (per acre)			
Land Cover	Varies[2]	0.117	Varies[2]
Wetland	Varies[2]	0.117	Varies[2]

[1] Includes projected fee revenue for permanent and temporary land cover and wetland mitigation, nitrogen deposition, serpentine, and burrowing owl.

[2] Applicable base fee adjusted for duration of impact.

Table 9-9. Plan Preparation Cost Recovery Fee Calculations

Plan Preparation Costs	$	6,350,000
Less: Section 6 Grant		1,107,648
Plan Preparation Costs Funded by Local Partners	$	5,242,352
Mitigation Share of Plan Preparation Cost[1]		80%
Mitigation-Related Plan Preparation Cost	$	4,190,000
Total Projected Development Fee Obligation[2]	$	307,170,000
Plan Preparation Cost Factor		0.014

Fee Category		Base Fee Amount	Plan Preparation Cost Factor		Fee Component
Land Cover Fees (per acre)					
Zone A	$	13,630	0.014	$	191
Zone B		9,450	0.014		132
Zone C		3,453	0.014		48
Serpentine Fee (per acre)	$	44,355	0.014	$	621
Nitrogen Deposition Fee (per vehicle trip)	$	3.19	0.014	$	0.04
Wetland Fees (per acre)					
Willow Riparian Forest/Mixed Riparian	$	122,982	0.014	$	1,722
Central Calif. Sycamore Woodland		224,632	0.014		3,145
Freshwater Marsh		150,812	0.014		2,111
Seasonal Wetland		329,966	0.014		4,620
Pond		134,965	0.014		1,890
Streams (per linear foot)		518	0.014		7
Burrowing Owl Fee (per acre)	$	44,596	0.014	$	624

[1] Based on an estimate that preparing an HCP-only Plan would cost approximately 80% of the costs incurred to prepare the Habitat Plan.

[2] Includes land cover, serpentine, nitrogen deposition, wetland mitigation, burrowing owl and temporary development fees.

Table 9-10. Habitat Plan Nitrogen Deposition Fee Calculation

Serpentine Management & Monitoring Cost Mitigation Related to Nitrogen Deposition[1]	$	5,310,000
Other Mitigation Costs Related to Nitrogen Deposition[2]		14,930,000
Total Mitigation Costs Related to Nitrogen Deposition	$	20,240,000
Share of Nitrogen Deposition from Plan Area[3]		50%
Plan Area Share of Nitrogen Deposition Mitigation Costs	$	10,120,000
Plan Area Vehicle Trip Growth		3,176,000
Nitrogen Deposition Fee per New Vehicle Trip	**$**	**3.19**

[1] Additional per-acre management and monitoring costs for serpentine land covers estimated at $2,148 ($4,360 total serpentine costs minus $2,212 average cost for other land covers). An estimated 2,704 acres of serpentine land in the Reserve System is for mitigation based on estimated serpentine land cover impacts and a 4:1 mitigation ratio. Total additional management and monitoring costs for serpentine mitigation lands in the reserve is $5.81 million ($2,148 x 2,704).

[2] Includes 20% of mitigation costs for land covers known to be sensitive to nitrogen deposition, and 10% of mitigation costs for land covers that may be sensitive to nitrogen deposition. See *Development Fee Nexus Study* for more details.

[3] Based on calculations in **Appendix E**.

Table 9-11. Wetland Fees by Land Cover Type

Land Cover Type	Total per Unit Cost[1]	Required Compensation Ratio for Restoration/ Creation[2]	Restoration Fee per Unit of Impact[3]	Endowment Component[4]	Plan Preparation Component[5]	Total Fee	Method for Determining Fee Boundary
Willow and mixed riparian forest, woodland, and scrub	$122,982/acre	1:1	$122,982/acre	$15,004/acre	$1,722/acre	$139,708/acre	Limit of tree or shrub canopy (drip line)
Central California sycamore alluvial woodland	$112,316/acre	2:1	$224,632/acre	$27,405acre	$3,145/acre	$225,182/acre	Limit of tree or shrub canopy (drip line)
Coastal and valley freshwater marsh	$150,812/acre	1:1	$150,812/acre	$18,399/acre	$2,111/acre	$171,322/acre	Wetland boundary as determined through methods described in Section 6.8.4
Seasonal wetland	$164,983/acre	2:1	$329,966/acre	$40,256/acre	$4,620/acre	$374,842/acre	Same as for coastal and valley freshwater marsh
Ponds	$134,965/acre	1:1	$134,965/acre	$16,466/acre	$1,890/acre	$153,321/acre	Same as for coastal and valley freshwater marsh
Streams	$518/linear foot	1:1	$518/linear foot	$63/linear foot	$7/linear foot	$588/linear foot	Stream length measured along stream centerline

[1] See *Development Fee Nexus Study* for restoration cost assumptions and calculation of total cost for each land cover type.

[2] Source: **Table 5-13**.

[3] Restoration cost multiplied by compensation ratio.

[4] Source: **Table 9-8**.

[5] Source: **Table 9-9**.

Table 9-12. Fee Adjustment Indices

Fee	Annual Adjustment Index[1]	Historic Range of Index (Years)	Average Annual Rate of Index (Years)
Land Cover, Serpentine, and Nitrogen Deposition Fees			
a. Portion for Land Acquisition[2] (46% initially[3])	Change in the annual House Price Index (HPI) for the San Jose-Sunnyvale-Santa Clara, CA Metropolitan Statistical Area (MSA) for the prior calendar year (Federal Housing Finance Agency)[4]	–12.74% to 33.96% (1977 to 2009)	8.33% (1977 to 2009)
b. Portion for Preserve System Operation, Restoration, and Maintenance (54% initially[3])	Change in the Consumer Price Index for the San Francisco-Oakland-San Jose Combined Statistical Area for all urban consumers for the prior calendar year (U.S. Bureau of Labor Statistics)[5]	–10.0% to 18.35% (1915 to 2009)	3.57% (1915 to 2009)
Wetland and Burrowing Owl Fees	Same as b (Consumer Price Index)		

Notes:

[1] Habitat Plan fees to be adjusted on an annual basis by a date determined by the Implementing Entity's Governing Board within the first 6 months of Plan implementation based on the indices for the prior calendar year.

[2] Direct land acquisition costs only. Excludes costs associated with land transaction, site improvements, and due diligence (e.g., pre-acquisition surveys).

[3] The portion of the base development fee and temporary impact fee that will be adjusted according to the HPI and CPI will vary over time. For the first annual automatic adjustment, 46% of the initial fees will be adjusted according to the HPI and 54% will be adjusted according to the CPI. The apportionment in subsequent years will depend on the proportional estimate of land cost to the rest of Plan costs.

[4] See <http://www.fhfa.gov>. Data for the prior calendar year are published in March.

[5] Consumer Price Index, All Items, with base data year of 1982–1984 (i.e., 1982–1984 = 100), for all urban consumers (CPI-U), not seasonally adjusted. See <http://www.bls.gov/>.

Table 9-13. Federal and State Funding Sources for HCPs and NCCPs in California

Program Name	Program Administrator	Funding Source	Funding Available in California	Year	Description	Eligibility	Santa Clara Valley Habitat Plan Potential
Endangered Species Act Section 6 Grants	U.S. Fish and Wildlife Service, California Department of Fish and Game	Federal	$194,891,458	2007–2011 annual average	Grants for HCP land acquisition; current USFWS policy requires non-federal match of 25% that cannot be from local mitigation fees.	HCPs	Strong
Land and Water Conservation Fund	California Department of Parks and Recreation	Federal	$1,275,155	2007	Dollar-for-dollar matching grants for planning, acquisition, and development of outdoor recreation areas and facilities	Cities, counties and districts with authority to acquire, develop, operate and maintain public park and recreation areas	Moderate; used by County Parks in past
Farm and Ranch Land Protection Program	Natural Resource Conservation Service	Federal	$2,407,474	2007	USDA provides up to 50% of conservation easement value; requires partnerships with other agencies.	Active farm and ranch lands	Very limited
Environmental Quality Incentives Program	Natural Resource Conservation Service	Federal	$74,384,767	2011	Financial assistance to plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland.	Owners of active agricultural, forest production, or ranch lands that have a natural resource concern.	Uncertain; higher likelihood for projects that align with annual natural resource concern initiatives
Wildlife Habitat Incentive Program	Natural Resource Conservation Service	Federal	$3,601,152	2011	Provides technical and financial assistance to landowners and others to develop upland, wetland, aquatic, and other types of habitat that supports fish and wildlife populations of National, State, Tribal, and local significance.	Private agricultural land including cropland, grassland, rangeland, pasture, and other land suitable for fish and wildlife habitat development, nonindustrial private forest land including rural land that has existing tree cover or is suitable for growing trees, and Indian land.	Uncertain

Program Name	Program Administrator	Funding Source	Funding Available in California	Year	Description	Eligibility	Santa Clara Valley Habitat Plan Potential
North American Wetlands Conservation Act Grant Program	U.S. Fish and Wildlife Service	Federal	$9,485,299	2006–2007	Program provides matching grants to aid in wetland conservation projects, including land acquisition, restoration, and enhancement. Non-federal match must be at least 1:1.	Non-federal agencies, organizations, or individuals	Uncertain
Landscape Conservation Cooperatives	U.S. Fish and Wildlife Service	Federal	$18,000,000	2011–2012	New program to apply strategic habitat conservation through partnerships with other federal agencies, states, tribes, NGOs, and stakeholders. Program established to improve science and management decisions in response to climate change.	Habitat Plan within California Landscape Conservation Cooperative, one of 16 established throughout the country.	Uncertain
Central Valley Project (CVP) Improvement Act Habitat Restoration Program	U.S. Fish and Wildlife Service and U.S. Bureau of Reclamation	Federal	$1,000,000–4,000,000 annually	1996 to present	Provides funds for land acquisition, management, monitoring, research, restoration for endangered / threatened species impacted by the CVP.	Federal and State government agencies, private non-profit or profit organizations, and individuals	Strong
Sustainable Communities Planning Grant Program	U.S. Department of Housing and Urban Development	Federal	$100,000,000 nationwide	2011	Provides funds to cities and counties to improve regional planning efforts that increase the capacity to improve land use and zoning.	Undetermined; new program	Unknown
Habitat Conservation Fund	California Department of Parks and Recreation	State, Other[1]	$2,000,000	2007	Program requires dollar for dollar match from non-state source for wetlands, riparian, trails/programs and anadromous/trout categories.	Cites, counties and districts	Moderate; used by County Parks in past

Program Name	Program Administrator	Funding Source	Funding Available in California	Year	Description	Eligibility	Santa Clara Valley Habitat Plan Potential
Recreational Trail Fund	California Department of Parks and Recreation	Federal[2]	$6,037,429	2008	Federal money for non-motorized trail projects; RTP will provide up to 80% of total project costs.	Cities, counties, districts, state agencies and nonprofit organizations with management responsibilities over public lands	Moderate; used by County Parks in past
San Francisco Bay Area Conservancy[3]	California Coastal Conservancy	State, Proposition 40	$40,000,000	Total funding allocation through time	Funding from Proposition 40 and Proposition 50 for acquisition, development, rehabilitation, restoration and protection of land recourses and for Bay Area coastal watershed and wetlands protection, plus acquisition of agricultural and open space properties.	The State Coastal Conservancy, public agencies and nonprofit organizations (land trusts)	Nearly fully encumbered, but $1.6 million is budgeted for projects that may be compatible with the Habitat Plan. Used by County Parks in past.
Soap Lake Floodplain Preservation Grant Program	Pajaro River Watershed Flood Prevention Authority	State, Proposition 50 (Chapter 8)	$3,500,000	2008	Grants for land acquisition and easements in Soap Lake area (Santa Clara and San Benito Counties)	TBD	Likely strong
CalFed Bay-Delta Programs	California Bay Delta Authority and other California agencies	State, Proposition 50	$270,000,000	Total funding allocation through time	Various programs funded by Proposition 50 for habitat restoration and protection, conservation and restoration of watersheds.	State, federal, local and non-governmental agencies are eligible.	Moderate

Table 9-13. Continued

Program Name	Program Administrator	Funding Source	Funding Available in California	Year	Description	Eligibility	Santa Clara Valley Habitat Plan Potential
Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 - Forest and Wildlife Conservation	Wildlife Conservation Board, State Coastal Conservancy, California Department of Parks and Recreation	State, Proposition 84	$450,000,000	Total funding allocation through time	Proposition 84 provides various funding allocations for forest conservation and protection projects and development, rehabilitation, restoration, acquisition and protection of habitat. This includes specific funding for NCCP implementation. $10 million allocated to Wildlife Conservation Board for NCCPs in 2009 state budget.	$180,000,000 is allocated for forest conservation and protection projects; $135,000,000 is allocated for development, rehabilitation, restoration, acquisition and protection of habitat; $90,000,000 is allocated for NCCP establishment or implementation; $45,000,000 is allocated for the protection of ranches, farms, and oak woodlands;	Strong
Same as above	Strategic Growth Council	State, Proposition 84 (Chapter 8)	$60,000,000	2010–2013	The Sustainable Communities Planning Grant and Incentive Program.	The program provides $48 million to support development and implementation of local plans to help the state meet AB32 greenhouse gas emission reduction targets and implement SB375. Cities and counties developing or implementing NCCPs are eligible.	Strong
“Mountain Lion Fund”	State Coastal Conservancy, California Department of Parks and Recreation, Wildlife Conservation Board	State, Proposition 117	$30,000,000	Annual funding through 2020	Proposition 117 provides at least $30 million statewide each year for wildlife habitat preservation, including wetlands, stream and riparian habitat. Half must be spent in northern California.	$21 million is allocated to the WCB for purposes of the Dept. of Fish and Game. $4.5 million is allocated for local park, recreation and open space agencies as matching awards from the state. $4.5 million is for the Coastal and Tahoe Conservancy.	Moderate; used by County Parks once in 1990’s for joint acquisition with MROSD (Jacques Ridge property)

Table 9-13. Continued

Program Name	Program Administrator	Funding Source	Funding Available in California	Year	Description	Eligibility	Santa Clara Valley Habitat Plan Potential
Clean Water State Revolving Fund	Environmental Protection Agency	Revolving fund	$67,105,000	2007	Revolving fund provides low-interest loans for projects that improve water quality and reduce nonpoint source pollution, including wetland preservation, restoration and creation, and the protection of vernal pools and associated habitat such as oak woodlands. Loans can cover 100% of project costs with no cash up front.	Revolving fund loans are available to local governments, non-profits, municipalities, farmers, and homeowners.	Moderate

[1] Initiated by the California Wildlife Protection Act of 1990.

[2] Administered at the federal level by the Federal Highway Administration.

[3] The San Francisco Bay Area Conservancy obtains funds via the Statewide California Coastal Conservancy program. The broader California Conservancy program also funds other projects in the San Francisco Bay Area, though they are all directly on the coastline, not in Contra Costa County.

Sources: East Contra Costa County HCP/NCCP; MuniFinancial; County of Santa Clara Parks & Recreation Department.

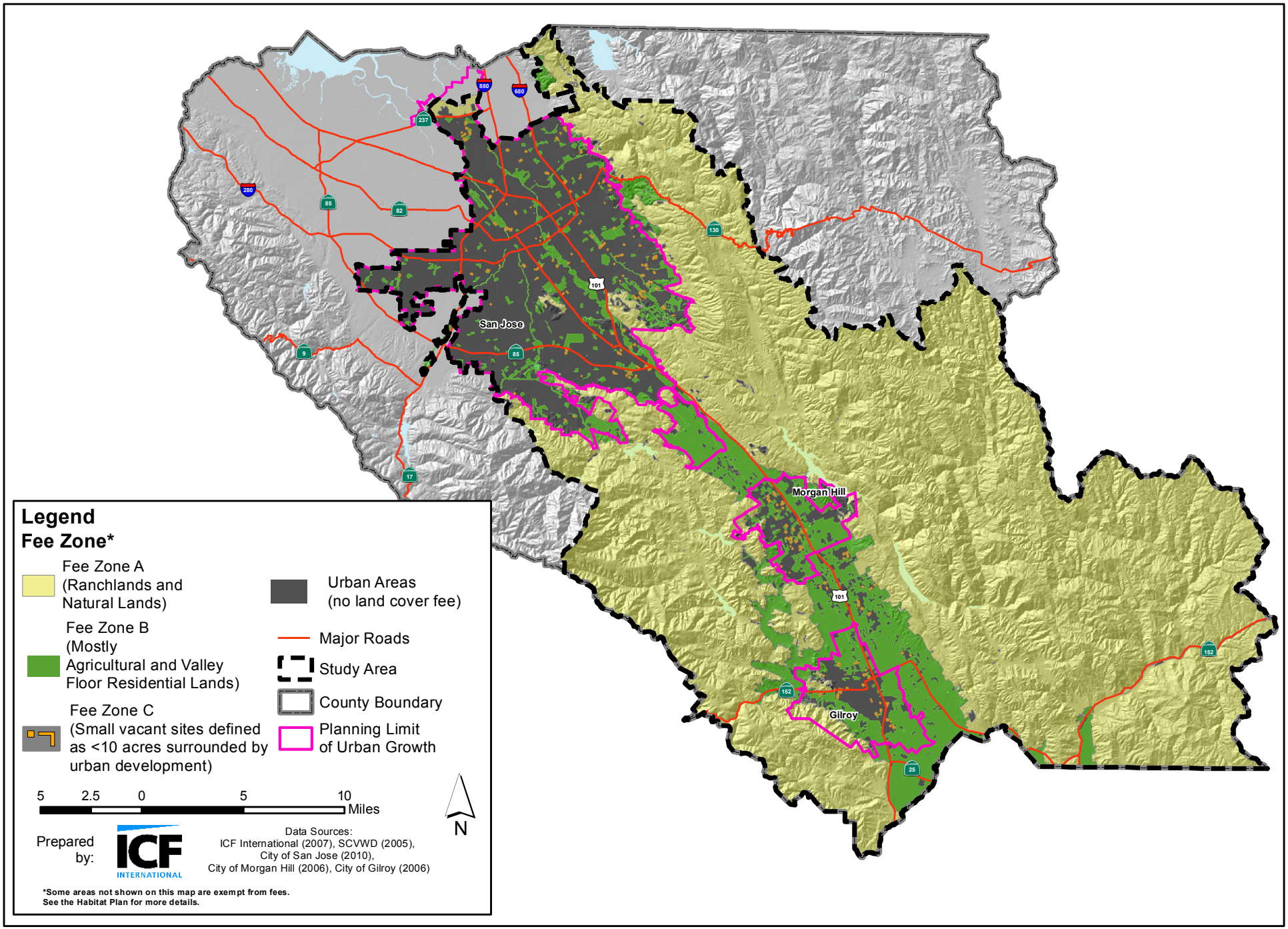

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Figure 9-1
Land Cover Fee Zones

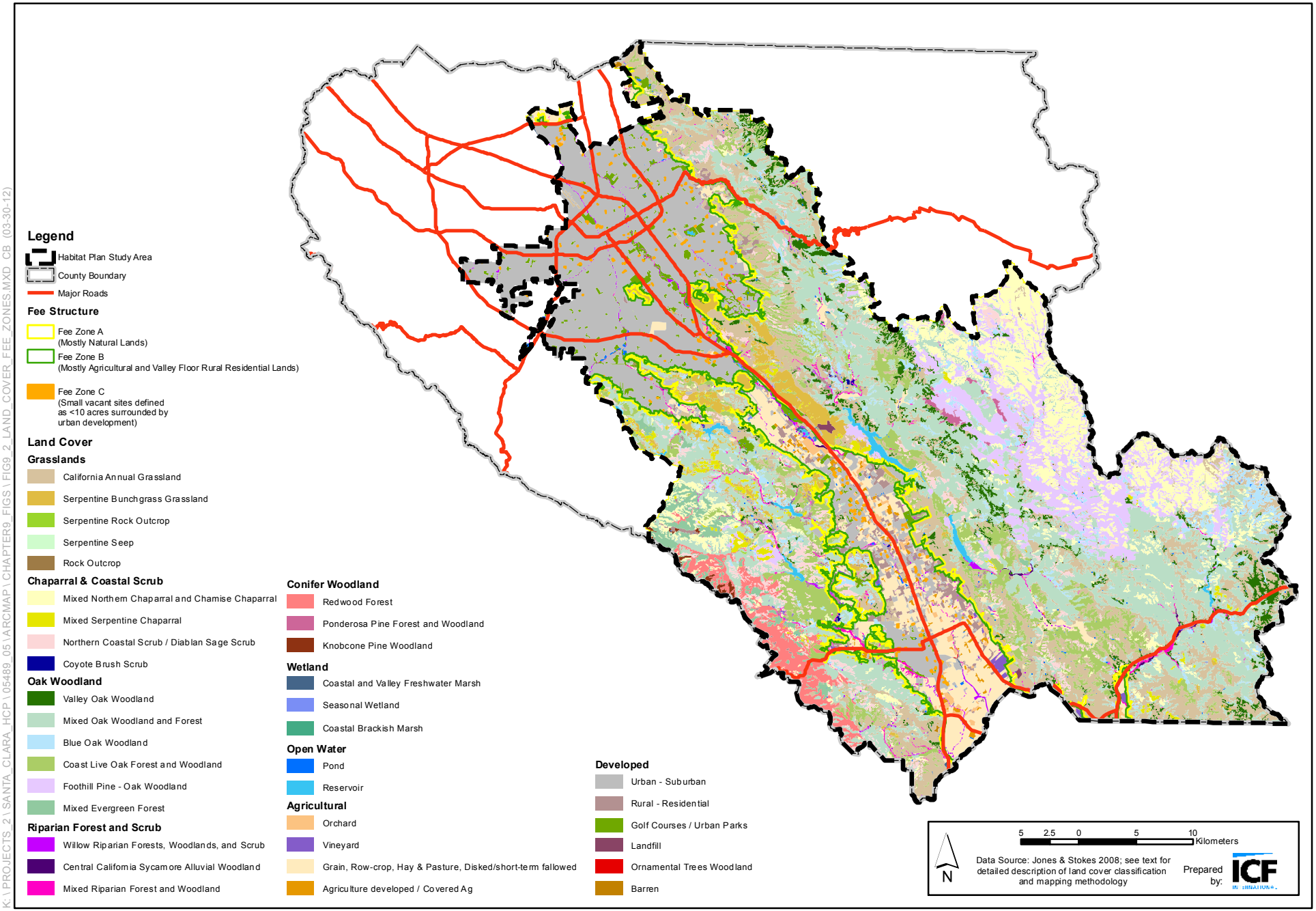

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Figure 9-2
Land Cover Types and Fee Zones