SANTA CLARA VALLEY HABITAT PLAN

DEVELOPMENT FEE NEXUS STUDY

JUNE 30, 2012

WITH URBAN ECONOMICS

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1. Introduction & Summary

This study documents the calculation of the development fees that will be used to partially fund implementation of the Santa Clara Valley Habitat Plan (Plan). The Plan will protect, enhance, and restore natural resources in specific areas of Santa Clara County and contribute to the recovery of endangered species. The Plan will allow the County of Santa Clara (County), the Santa Clara Valley Water District (SCVWD), the Santa Clara Valley Transportation Authority (VTA) and the cities of Gilroy, Morgan Hill, and San José (collectively, the Local Partners or Permittees) to receive permits under the federal Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (NCCPA) for the incidental take of species covered under these laws.

The Plan will streamline the approval of development projects and other covered activities. Instead of being required to analyze impacts on endangered species and conduct mitigation on a case-by-case basis to receive endangered species permits, activities covered under the Plan (also referred to as "covered activities" in this report) can proceed by complying with the Plan including paying the applicable Plan development fees. The Plan includes conservation actions to mitigate the impacts of covered activities and to contribute to the recovery of covered species in the Plan area. The fees will be established by the Implementing Entity[1] and collected from Permittees, private developers, and other local entities to fund the share of Plan costs related to mitigating urban and rural development, the construction and maintenance of public infrastructure, and other covered activities. The Plan identifies other funding for the share of total costs associated with recovery of covered species (referred to as "enhancement") as opposed to mitigation of impacts.

Projects or activities not covered by the Plan do not pay Plan development fees. See Chapter 2 of the Plan for a list of activities not covered by the Plan. These non-covered activities include projects for which a project proponent receives written confirmation from the U.S. Fish and Wildlife Service and the California Department of Fish and Game (the Wildlife Agencies) that the activity is not subject to CESA and ESA, has already received the necessary take authorizations under CESA and ESA, or has otherwise complied with CESA and ESA. This provision allows, for example, a private developer to be exempt from the development fees if they provide written confirmation from the Wildlife Agencies that their obligatinos under the Plan have been satisfied.

The development fee analysis draws on the analysis and provisions of the Plan. The development fees are based on the Plan's assumptions of the amount of covered activities that will occur during the 50-year permit term, the cost of implementing the Plan, and amount of conservation actions that are required to mitigate the impacts of covered activities.

[1] The Implementing Entity will be a Joint Powers Authority (JPA) composed of the Cities of Gilroy, Morgan Hill, and San José, and the County. The Implementing Entity will be responsible for executing the requirements of the Plan, the permits issued under the Plan, an implementing agreement, and the adoption and collection of the Plan development fees.

The Mitigation Fee Act

Development fees are one-time fees, typically paid when a building permit is issued, imposed on development projects by cities and counties. The Mitigation Fee Act (the Act), contained in California Government Code Sections 66000 *et seq*., guides the adoption and collection of development impact fees by local agencies. The Act requires local agencies adopting impact fees to show that there is a reasonable relationship ("nexus") between the type of impacts, the use of fee revenue, and the development projects upon which the fee is imposed. The Act also requires local agencies to show that the amount of the fee is roughly proportional to the impact of a development project. The documentation provided in this study will allow the Implementing Entity under authority granted to it by the Joint Powers Authority to make the findings required by the Act and impose the Santa Clara Valley Habitat Plan development fees.

Summary of Nexus Approach

The Plan includes activities that are designed to mitigate the impacts of new development on covered species and natural communities. In addition, the Plan is also designed to provide habitat conservation activities that go beyond what is required to mitigate development impacts to contribute to the recovery of natural communities and covered species (enhancement). The development fees are designed so that new development and other activities that will impact species habitats will provide funding that is roughly proportional to the estimated reasonable cost of Plan activities that would be required to mitigate those impacts. The overall level of mitigation assumed by this analysis is consistent with the level that would have been achieved if mitigation had been applied on a project-by-project basis consistent with application of the ESA and NCCPA to comparable areas within in California.

The use of development fee revenues will be restricted to the cost categories of the Plan that provide the cost basis for the calculation of the particular fee. For most fees the allowable use of revenues encompass most Plan cost categories including (1) program administration, (2) land acquisition including transaction costs and site improvements, (3) reserve management and maintenance, (4) monitoring research, and scientific review, and (5) contingencies. For certain fees such as the wetland mitigation and burrowing owl fees that are based on the amount of specific cost categories, the use of fee revenues will be restricted to those cost categories.

Demonstrating full funding for the Plan is a requirement for the local partners to receive incidental take permits from the Wildlife Agencies to allow the covered activities to occur. Without the use of fee revenue for Plan activities other than land acquisition the Plan would not be fully funded and incidental take permits would not be available for covered activities. Therefore, the planned uses of fee revenue will benefit private development and other covered activities required to pay the fees at a level that is proportionate to the benefit derived by these activities from the Plan.

Covered Activities

The Plan will allow the Local Partners to obtain incidental take permits for the following covered activities. These activities will be required to pay the Plan development fees or, in some cases, provide land or conservation actions of an equal or greater value than their fee liability in lieu of paying the fees:

- Private development:
  - Urban development
  - Rural development
- Public capital projects and ongoing operations:
  - In-stream capital projects
  - In-stream operations and maintenance projects
  - Rural capital projects
  - Rural operations and maintenance projects (public activities)

Activities related to implementation of the Plan conservation strategy are also covered under the Plan; however, these activities will not be subject to fees under the Plan because of their value for implementation of the Plan.

An impact analysis conducted as part of the Plan preparation process projected the extent of covered activities that will occur over the 50 year permit term in the Plan area. The Plan area includes the cities of Gilroy, Morgan Hill, and San José, and surrounding unincorporated areas of Santa Clara County. The Plan area represents 62 percent of the entire County. Overall, it is projected that there will be up to 17,668 acres of permanent impacts to land in the Plan area that includes existing or potential habitat for covered species, net of conservation actions associated with Plan implementation. The impact analysis also projected the extent and frequency of activities that will have temporary impacts.

Conservation Strategy

The Plan will provide incidental take permits for 18 covered species. The covered species are either currently listed under the ESA and/or the NCCPA, or have a notable potential to become listed during the permit term. The Plan conservation strategy is designed to mitigate impacts on covered species and contribute to their recovery within the study area. The conservation strategy consists of the following major components:

- The acquisition of land and the creation of a reserve system, including regional connections between protected areas;
- The long-term management, enhancement, and in some cases restoration of natural communities within the reserve system;
- The development of a comprehensive wetland-related conservation strategy to address the needs of covered amphibians and aquatic reptiles;
- The implementation of a comprehensive, long-term, adaptive management and monitoring program; and
- The implementation of avoidance and minimization measures on covered activities (called conditions on covered activities).

As described in Chapter 9 of the Plan, a detailed cost model is used to project the costs of implementing the Plan during the permit term and the ongoing costs of managing and monitoring the reserve system after the permit term. The cost model is used to estimate funding needs for the Plan. The development fees are based on the costs estimated in the cost model. The cost model's assumptions are based on data from land management agencies in the study area and the Local Partners. Where data from local agencies was unavailable, assumptions from other Bay Area land management agencies are used. A separate land valuation analysis, based on comparable real estate transaction data, was used to develop the land acquisition cost estimates.

The cost model estimated Plan costs in the following categories:

- Land Acquisition;
- Reserve Management and Maintenance;
- Monitoring, Research, and Scientific Review;
- Western Burrowing Owl Conservation Strategy;
- Habitat Restoration/Creation;
- Program Administration; and
- Contingency Fund.

The total cost of Plan implementation during the permit term is estimated to be $564 million plus the cost of building an endowment to fund reserve system management and monitoring costs in perpetuity. As shown in this report, development fees (or land and conservation actions provided in lieu of development fees) are projected to fund approximately $364 million in Plan costs (see Chapter 10 of this report). All costs and fee revenue estimates are shown in current ($2010) dollar figures. As described in Chapter 9 of the Plan, the fees will be adjusted over time based on inflation and other changes in Plan costs.

The cost model estimates that post-permit management and monitoring of the reserve system will cost $3.1 million per year. These costs will be funded with the proceeds of an endowment fund generated by development fee revenue collected during the permit term.

Summary of Development Fees

The Plan includes five development fees that reflect the difference in per acre mitigation costs depending on the location of the development project or other covered activity. This study documents a reasonable relationship between covered activities and each fee. The fees are summarized below and explained in detail in the following chapters.

- **Land Cover Fees** (Permanent and Temporary) (see Chapters 2, 7, 8, and 9):
  - **Justification:** All covered activities in Zones A, B, and C will have direct or indirect impacts on covered species and their habitats. The land cover fee represents the average level of permanent impacts per acre before additional costs associated with mitigation on serpentine land cover types, wetland land cover types, and Western Burrowing Owl habitat. The temporary fee is for

covered activities with impacts that last for a limited amount of time and allow the disturbed area to recover to pre-project conditions and therefore have lower average costs per acre of impact than covered activities that create permanent impacts.

- **Cost Basis for Fee Calculation:** Average Plan costs per acre of impact in Zones A, B, and C, weighted for differences in costs among zones, excluding (1) nitrogen deposition impact costs for mitigation on non-serpentine land cover types, (2) incremental costs for mitigation on serpentine land cover types (including nitrogen deposition costs on serpentine land cover types), (3) incremental costs for mitigation on wetland land cover types, and (4) incremental cost for the Western Burrowing Owl conservation strategy. For the termporary fee the permanent fee is reduced proportionately to represent the duration of a temporary impact. Includes components for endowment and plan preparation costs.
- **Covered Activities Subject To Fee:** Activities on land cover types in Zones A, B, and C.
- **Calculation of Fee for a Covered Activity:** Acreage, based on parcel size or development area footprint for parcels greater than 10 acres.[2]
- **Use of Fee Revenue:** All Plan costs associated with land cover types in Zones A, B, and C except costs associated with the Western Burrowing Owl conservation strategy (funded by the burrowing owl fee) and costs associated with habitat restoration or creation costs on wetlands (funded by the permanent and temporary wetland mitigation fees). Can be used in conjunction with serpentine and nitrogen deposition fee revenue though the latter are restricted to certain land cover types (see respective fee summaries, below).

- **Serpentine Fee** (Permanent and Temporary) (see Chapters 3, 7, 8, and 9):
  - **Justification:** Average mitigation costs per acre of impact on serpentine land cover types are more costly than for most other land cover types due to the large number of covered species found in serpentine areas and the intensive management and monitoring required to maintain the quality of serpentine habitats. The temporary fee is for covered activities with impacts that last for a limited amount of time and allow the disturbed area to recover to pre-project conditions and therefore have lower average costs per acre of impact than covered activities that create permanent impacts. Includes components for endowment and plan preparation costs.
  - **Cost Basis for Fee Calculation:** Average incremental Plan costs per acre of impact for mitigation on serpentine land cover types excluding costs associated

[2] Exceptions include certain public projects and parcels with conservation easements. See *Santa Clara Valley Habitat Plan*, Chapter 9, *How To Calculate The Land Cover Fee* subsection.

with mitigation of nitrogen deposition on serpentine land cover types. For the termporary serpentine fee the permanent fee is reduced proportionately to represent the duration of a temporary impact.

- **Covered Activities Subject To Fee:** Activities on serpentine land cover types.[3]
- **Calculation of Fee for a Covered Activity:** Same as land cover fee.
- **Use of Fee Revenue:** All Plan costs for land purchases in serpentine land cover types excluding due diligence, pre-acquisition surveys, and site improvements.

- **Nitrogen Deposition Fee** (see Chapters 4, 8, and 9):
  - **Justification**: All new residential and commercial/industrial development will be associated with an increase in vehicle traffic and other sources of airborne nitrogen compounds. These emissions will result in an increase in the deposition of nitrogen compounds in the reserve system. Certain land cover types in the reserve system are sensitive to nitrogen deposition, particularly serpentine types, because nitrogen compounds increase soil fertility, favoring non-native annual grasses over native plant species and the species they host. Includes components for endowment and plan preparation costs.
  - **Cost Basis for Fee Calculation:** Includes (1) average costs per acre of impact for mitigation of nitrogen deposition on non-serpentine land cover types, plus (2) incremental Plan costs per acre of impact for (2a) reserve management and maintenance, and (2b) monitoring, research, and scientific review related to nitrogen deposition on serpentine land cover types.
  - **Covered Activities Subject To Fee:** All activities throughout Plan area (primarily urban development in addition to covered activities in Zones A, B, and C).
  - **Calculation of Fee for a Covered Activity:** Estimated new daily vehicle trips.
  - **Use of Fee Revenue:** All Plan costs on land cover types affected by nitrogen deposition.[4]
- **Burrowing Owl Fee** (see Chapters 5, 8, and 9):
  - **Justification**: A separate fee is needed to fund mitigation of impacts on Western Burrowing Owl nesting habitat because (1) nesting habitat is isolated in specific locations so only a small share of covered activities will cause impacts, and (2) mitigation includes costs that are unique and in addition to the cost of mitigation included in the land cover fee. Includes components for endowment and plan preparation costs. The temporary fee is for covered activities with impacts that last for a limited amount of time and allow the disturbed area to recover to pre-

[3] The four serpentine land cover types include serpentine bunchgrass grassland, serpentine rock outcrop / barrens, serpentine seep, and mixed serpentine chaparral. These types occur predominantly in Zone A.

[4] Includes all four serpentine land cover types plus 13 additional non-serpentine land cover types. See Chapter 4 for list.

project conditions and therefore have lower average costs per acre of impact than covered activities that create permanent impacts.

- **Cost Basis for Fee Calculation:** Average cost per acre of impact for the Western Burrowing Owl conservation strategy. For the termporary fee the permanent fee is reduced proportionately to represent the duration of a temporary impact.
- **Covered Activities Subject To Fee:** Activities in occupied Western Burrowing Owl nesting habitat.[5]
- **Calculation of Fee for a Covered Activity:** Same as land cover fee.
- **Use of Fee Revenue:** All Plan costs associated with the Western Burrowing Owl conservation strategy.

- **Wetland Mitigation Fee** (Permanent and Temporary) (see Chapters 6, 7, 8 and 9)**:**
  - **Justification**: Average mitigation costs per acre of impact on wetland land cover types are more costly than for most other land cover types due to the cost of wetland restoration or creation. The temporary fee is for covered activities with impacts that last for a limited amount of time and allow the disturbed area to recover to pre-project conditions and therefore have lower average costs per acre of impact than covered activities that create permanent impacts. Includes components for endowment and plan preparation costs.
  - **Cost Basis for Fee Calculation:** Average costs per acre of impact for habitat restoration/creation adjusted for differences in costs among wetland land cover types. For the termporary fee the permanent fee is reduced proportionately to represent the duration of a temporary impact.
  - **Covered Activities Subject To Fee:** Activities on wetland land cover types.[6]
  - **Calculation of Fee for a Covered Activity:** Acreage of direct impacts on wetland habitats including riparian and alluvial woodland, marsh, seasonal wetlands, ponds, and streams.[7]
  - **Use of Fee Revenue:** Only Plan costs for habitat restoration or creation.

The assumptions, methods, and approaches used to calculate each of these fees are explained in the following chapters. **Table 1.1** shows the total amount for each fee, the basis on which it is calculated for a covered activity, and the location of covered activities that would be subject to the fee.

[5] See *Santa Clara Valley Habitat Plan*, Chapter 5, Figure 5-11.

[6] The seven wetland land cover types include willow riparian forest and scrub, mixed riparian forest and woodland, Central California sycamore alluvial woodland, coastal and valley freshwater marsh, seasonal wetlands, pond, and stream.

[7] See *Santa Clara Valley Habitat Plan*, Chapter 9, *Wetland Mitigation Fee* subsection for details on application of the fee to covered activities.

Table 1.1: Habitat Plan Development Fees

Development Fee Type	Units	Projected Initial Fee Amount[1] Base Fee	Endowment	Plan Preparation	Total Fee	Geographic Applicability
Land Cover Fee						
Zone A: Ranchlands and Natural Lands	per acre	$ 13,630	$ 1,595	$ 191	$ 15,416	Zone A
Zone B: Mostly Cultivated Agricultural Lands	per acre	$ 9,450	$ 1,106	$ 132	$ 10,688	Zone B
Zone C: Small vacant sites between 2 and 10 acres surrounded by urban development	per acre	$ 3,453	$ 404	$ 48	$ 3,905	Zone C
Serpentine Fee	per acre	$ 44,355	$ 5,190	$ 621	$ 50,166	Serpentine land cover types
Nitrogen Deposition Fee	per new vehicle trip	$ 3.19	$ 0.37	$ 0.04	$ 3.60	Entire Plan Area
Burrowing Owl Fee	per acre	$ 44,596	$ 5,218	$ 624	$ 50,438	Burrowing owl nesting habitat
Wetland Mitigation Fee						
Willow Riparian Forest and Mixed Riparian	per acre	$ 122,982	$ 15,004	$ 1,722	$139,708	Specified wetland land cover type
Central California Sycamore Woodland	per acre	$ 224,632	$ 27,405	$ 3,145	$255,182	Specified wetland land cover type
Freshwater Marsh	per acre	$ 150,812	$ 18,399	$ 2,111	$171,322	Specified wetland land cover type
Seasonal Wetlands	per acre	$ 329,966	$ 40,256	$ 4,620	$374,842	Specified wetland land cover type
Pond	per acre	$ 134,965	$ 16,466	$ 1,890	$153,321	Specified wetland land cover type
Stream	per linear ft.	$ 518	$ 63	$ 7	$ 588	Specified wetland land cover type
Temporary Impact Fee[3]						
Land Cover	per acre	Varies[2]	Varies[2]	Varies[2]	Varies[2]	Zone A, B, and C
Serpentine	per acre	Varies[2]	Varies[2]	Varies[2]	Varies[2]	Serpentine land cover types[3]
Wetland Mitigation	per acre	Varies[2]	Varies[2]	Varies[2]	Varies[2]	Specified wetland land cover types

[1] Projected initial fees would apply only in the first year of Plan implementation. All development fees would be adjusted (up or down) at least annually by March 15 by the indices and adjustment procedures described in Chapter 9 of the Plan.

[2] Temporary impacts fees are calculated based on the applicable the land cover, serpentine, and wetland mitigation fees, including related endowment and plan preparation fees adjusted for the duration of the impact.

Sources: Tables 2.8, 3.2, 4.6, 5.1, 6.2, 8.2, and 9.2.

2. Land Cover Fee

This chapter documents the calculation of the Plan's land cover fee. The land cover development fees are based on the share of Plan costs related to mitigating the impacts of covered activities. The approach follows the following steps explained in the sections that follow:

1. Estimate total land cover mitigation and enhancement costs.
2. Allocate land cover costs to mitigation only.
3. Allocate costs among land cover types.
4. Calculate development fee and estimate projected revenue.

Total Land Cover Mitigation and Enhancement Costs

The first step in calculating the land cover development fees is determining the share of Plan costs related to permanent and temporary development impacts that are common to all covered activities, and not otherwise associated with the calculations for one of the other development fees. Total plan costs for the purposes of the land cover fee therefore exclude the following:

- All wetland habitat restoration/creation costs (funded by the permanent and temporary wetland mitigation fees);
- Costs associated with existing County Parks and Santa Clara Valley County Open Space Authority lands being contributed to the reserve system;
- All Western Burrowing Owl conservation strategy costs (funded by the burrowing owl fee).

The net costs calculated using the methodology described above are then allocated between serpentine and non-serpentine land cover types to calculate the costs that are common to all land cover types on a per acre basis. To calculate cost per acre, costs related to land acquisition including due diligence, pre-acquisition surveys, and site improvements, are based on total acquired acres for the reserve system. However, a small portion of this total acquired acreage will not be in the reserve system because of inefficiencies associated with land acquisition, e.g. a larger parcel than needed may need to be acquired to meet Plan goals. Thus, all other (non-land acquisition) Plan costs on a per acre basis are based on only that share of the acquired land that will be managed and monitored.

Costs are allocated between serpentine and non-serpentine land cover types in the reserve system based on the following approach explained below:

- **Program administration:** Same average costs per acre for serpentine and non-serpentine reserve lands.
- **Land acquisition (purchase costs only):** Cost per acre are based on land values. Land values vary based on (1) the location of the land within the reserve system (the valley floor has higher values than the surrounding hills), and (2) the size of the parcel (smaller parcels have higher per acre costs than larger parcels). Therefore

costs for acquired serpentine reserve lands are based on the distribution of serpentine land within the Plan area, and the assumption that serpentine parcels will be between 50 and 250 acres.

- **Land acquisition (due diligence, pre-acquisition surveys, and site improvements):** Same average costs per acre for serpentine and non-serpentine land cover types.
- **Reserve management and maintenance:** These costs are expected to be higher for serpentine reserve lands than for other land covers because serpentine lands are expected to require more intensive management than other reserve land cover types. First, more covered species occur on serpentine land cover types. In addition, serpentine lands require more active management to maintain the biological values of the site (such as livestock grazing, active exotic species control, prescribed burning, and access controls) than other land cover types. Finally, serpentine land covers are more sensitive to the indirect impacts of nitrogen deposition that requires more management to offset. Cost allocation assumes that 20 percent of total costs are associated with serpentine reserve lands based on analysis of the Plan budget and experience with management of similar lands under other habitat plans.
- **Monitoring, research, and scientific review:** These costs are expected to be higher for serpentine reserve lands than for other land covers for the same reasons discussed above for management and monitoring. Cost allocation assumes that 33 percent of total costs are associated with serpentine reserve lands based on analysis of the Plan budget and experience with monitoring of similar lands under other habitat plans.
- **Contingency fund:** Allocate costs based on the subtotal of all other cost categories.

Table 2.1 shows the calculation of net Plan costs and costs per acre allocated between serpentine and non-serpentine land cover types. Net costs represent both mitigation and enhancement actions.

Allocation of Land Cover Costs To Mitigation Only

The second step in calculating the land cover fee is to determine the share of reserve system lands related to mitigation and excluding enhancement. This amount is applied to the net costs shown in Table 2.1 to determine the share that is solely related to mitigation. **Table 2.2** shows the number of reserve acres required for mitigation of permanent covered impacts. Acres of permanent impacts exclude impacts related to conservation strategy implementation on Reserve Lands. The adverse effects associated with the implementation of conservation actions are considered temporary because they provide a net benefit to covered species and their habitats.

Table 2.1: Habitat Plan Cost For Serpentine and Non-Serpentine Reserve Lands

	Serpentine & Non-Serpentine Acquired Reserve Land Costs			Cost Allocation		Cost Per Reserve System Acre	
	Total Habitat Plan Costs	Cost Adjustments	Net Costs	Serpentine Costs	Non-Serpentine Costs	Serpen-tine	Non-Serpen-tine
Reserve System Acreage							
Acquired Lands						4,930	31,170
Acquired, Managed & Monitored Lands						4,830	29,323
Habitat Plan Cost Components							
Program Administration[1]	$ 45,890,000	$ -	$ 45,890,000	$ 6,490,000	$ 39,400,000	$ 1,344	$1,344
Land Acquisition[2]							
Acquisition	$257,880,000	-	257,880,000	49,220,000	208,660,000	9,983	6,694
Site Improvements	10,780,000	-	10,780,000	1,470,000	9,310,000	299	299
Due Diligence & Pre-acquisition Surveys	10,280,000	-	10,280,000	1,410,000	8,870,000	285	285
Habitat Restoration/Creation[3]	92,630,000	(92,630,000)	-	-	-	-	-
Reserve Management and Maintenance[4]	95,360,000	($39,490,000)	55,870,000	11,170,000	44,700,000	2,313	1,524
Monitoring, Research, and Scientific Review[4]	30,230,000	($3,280,000)	26,950,000	8,690,000	18,260,000	1,799	623
Western Burrowing Owl Conservation Strategy[5]	8,570,000	(8,570,000)	-	-	-	-	-
Subtotal	$551,620,000	$ (143,970,000)	$407,650,000	$78,450,000	$329,200,000	$16,023	$10,769
Contingency Fund[6]	$ 12,420,000	(1,540,000)	10,880,000	2,094,000	8,786,000	434	300
Total	$564,040,000	$ (145,510,000)	$418,530,000	$80,544,000	$337,986,000	$16,457	$11,069

[1] Program administration costs allocated based on serpentine share of acquired, managed, and monitored acreage.

[2] Land acquisition costs allocated based on share of acquired acreage. Acquisition cost per acre for serpentine based on distribution of serpentine land covers in the Plan area, land acquisition costs for the areas where serpentine land covers occur, and the assumption that most serpentine reserve lands will be acquired through purchases of 50-250 acre parcels.

[3] Cost adjustment reflects deduction for all habitat restoration and creation costs because these costs are solely related to wetland land cover types. Wetland restoration costs related to development impacts are funded by the separate wetland mitigation fee. This line item includes a separate contingency.

[4] Cost adjustment reflects deduction for costs associated with existing County Parks and Santa Clara County Open Space Authority lands in the reserve system. Cost allocation based on an estimate that 20 percent of reserve management and maintenance costs and 33 percent of reserve monitoring, research and scientific review costs for new reserve system land will be needed for serpentine land cover types.

[5] All burrowing owl costs are solely related to burrowing owl habitat impacts. These costs are funded by the separate burrowing owl development fee.

[6] Cost adjustment reflects three percent contingency for all line items above (Cost Adjustments column) except habitat restoration/creation that already includes a separate contingency. Cost allocation based on subtotal shares for all other costs.

Sources: *Santa Clara Valley Habitat Plan,* Tables 9-2, 9-3, G-0d, G-5, and G-6; ICF International.

Table 2.2: Reserve Acres Required for Mitigation of Permanent Impacts

Land Cover Type	Estimated Permanent Impacts (acres)[1] Non-Serpentine	Serpentine	Preservation Ratio	Estimated Mitigation (acres) Non-Serpentine	Serpentine
California Annual Grassland	1,719	-	3.00	5,157	-
Serpentine Bunchgrass Grassland	-	527	4.00	-	2,108
Serpentine Rock Outcrop / Barrens	-	21	4.00	-	84
Serpentine Seep	-	-	4.00	-	-
Rock Outcrop	-	-	2.00	-	-
Northern Mixed Chaparral / Chamise Chaparral	79	-	1.00	79	-
Mixed Serpentine Chaparral	-	127	4.00	-	508
Northern Coastal Scrub / Diablan Sage Scrub	170	-	1.00	170	-
Coyote Brush Scrub	10	-	1.00	10	-
Valley Oak Woodland	189	-	2.00	378	-
Mixed Oak Woodland and Forest	1,235	-	2.00	2,470	-
Blue Oak Woodland	122	-	2.00	244	-
Coast Live Oak Forest and Woodland	821	-	2.00	1,642	-
Foothill Pine - Oak Woodland	44	-	1.25	55	-
Mixed Evergreen Forest	48	-	1.25	60	-
Willow Riparian Forest and Scrub	179	-	2.00	358	-
Central California Sycamore Alluvial Woodland	6	-	2.00	12	-
Mixed Riparian Forest and Woodland	104	-	2.00	208	-
Redwood Forest	108	-	1.00	108	-
Ponderosa Pine Woodland	-	-	1.00	-	-
Knobcone Pine Forest	7	-	1.00	7	-
Coastal and Valley Freshwater Marsh	25	-	2.00	50	-
Seasonal Wetland	15	-	2.00	30	-
Pond	52	-	2.00	104	-
Orchard	625	-	-	-	-
Vineyard	37	-	-	-	-
Grain, Row-Crop, Hay and Pasture	7,042	-	0.50	3,521	-
Rural - Residential	1,601	-	0.50	801	-
Golf Courses / Urban Parks	2,095	-	0.50	1,048	-
Ornamental Woodland	30	-	-	-	-
Barren	32	-	-	-	-
Small Vacant Sites-Calif. Annual Grassland	150	-	3.00	450	-
Small Vacant Sites-Mixed Oak Woodland	150	-	2.00	300	-
Small Vacant Sites-Grain, Row-Crop, etc.	300	-	0.50	150	-
Total Mitigation Requirement	**16,995**	**675**		**17,412**	**2,700**
Total - Serpentine & Non-serpentine	**17,670**			**20,112**	

[1] Excludes impacts related to conservation strategy implementation on Reserve Lands. Impacts on 600 acres in three land cover types re-labelled as "Small Vacant Sites" to enable analysis of impacts in Zone C (see "Allocation of Costs Among Land Cover Types" section later in this chapter). Acreage data may vary slightly from other tables in Plan due to rounding.

Sources: *Santa Clara Valley Habitat Plan,* Table 4-2.

The estimated and total allowable acreage of impacts to each land cover type during the permit term is multiplied by a preservation ratio for each land cover to determine the acreage of each land cover type that would be required for mitigation of covered activities. The preservation ratios are consistent with accepted ratios for projects analyzed on a project-by-project basis outside of the Plan. Impacts to serpentine and non-serpentine land covers are shown separately to facilitate calculation of the serpentine fee (see next chapter). As shown in the table, 17,670 acres of impacts will require 20,112 acres of mitigation in the reserve system. The reserve system is planned to have 34,155 acres.[8] The additional amount above the mitigation requirement meets the enhancement requirements of the NCCPA to contribute to the recovery of natural communities and covered species.

Table 2.3 shows the proportion of planned reserve system acquisition that is needed for mitigation of land cover impacts. The table shows mitigation shares for acres to be acquired for the reserve system, as well that subset representing acres also to be managed and monitored, so that individual Plan cost categories can be calculated appropriately. Both mitigation shares related to non-serpentine and serpentine land cover types are shown with the non-serpentine data used in the next step of the analysis, below, and the serpentine data used in the next chapter.

Using the appropriate mitigation share for non-serpentine reserve system lands (acquired vs. acquired, managed, and monitored) we calculate the share of Plan costs associated with non-serpentine mitigation. **Table 2.4** shows the Plan costs related to mitigating impacts on non-serpentine land cover types by applying the mitigation shares from Table 2.3 to the net costs from Table 2.1.

Allocation of Costs Among Land Cover Types

The third step in calculating the land cover fee is to allocate mitigation costs among land cover types based on differences in mitigation requirements. Within the Plan area, 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. Three fee zones are defined by a map of land cover types in the Plan area (see Figure 9-1 in the Plan). These fee zones correspond to the dominant land cover types, conservation value, and open space value within each fee zone. The three fee zones are:

- **Zone A: Ranchland and Natural Lands.** Land within Zone A is strongly dominated by natural land cover types including grassland, oak woodland, and chaparral. 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.

[8] See *Santa Clara Valley Habitat Plan*, Table 5-21.

Table 2.3: Proportion of Reserve Acres Needed for Mitigation (acres)

	Acquired	Acquired, Managed, and Monitored
Non-Serpentine Land Cover Types		
Land Required for Mitigation	17,412	17,412
Total Land Acquisition	31,170	29,323
Share Needed for Mitigation	55.9%	59.4%
Serpentine Land Cover Types		
Lands Required for Mitigation	2,700	2,700
Total Land Acquisition	4,930	4,830
Share Needed for Mitigation	54.8%	55.9%
All Land Cover Types		
Lands Required for Mitigation	20,112	20,112
Total Land Acquisition	36,100	34,153
Share Needed for Mitigation	55.7%	58.9%

Sources: Tables 2.1 and 2.2.

Table 2.4: Non-Serpentine Land Cover Mitigation Costs

Budget Category	Net Costs	Mitigation Requirement	Mitigation Costs
Program Administration	$39,400,000	59.4%	$23,400,000
Land Acquisition			
Acquisition[3]	208,660,000	55.9%	116,640,000
Site Improvements	9,310,000	55.9%	5,200,000
Due Diligence & Pre-acquisition Surveys	8,870,000	55.9%	4,960,000
Habitat Restoration/Creation	-	59.4%	-
Reserve Management and Maintenance	44,700,000	59.4%	26,550,000
Monitoring, Research, and Scientific Review	18,260,000	59.4%	10,850,000
Contingency Fund	8,786,000	59.4%	5,220,000
Total	$337,986,000		$192,820,000

Sources: Tables 2.1 and 2.3.

- **Zone B: Agricultural and Valley Floor Rural Residential Lands.** Zone B is strongly dominated by cultivated agricultural land cover types such as grain, row-crop, hay and irrigated pasture, disked/short term fallowed, orchards, and vineyards. 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) that are not going to be developed before the permit is issued (i.e., not an interim project).
  - 2.0 to 10.0 acres in size (parcels less than 2.0 acres are not covered by the Plan unless one of the four serpentine or seven wetland cover types are within the parcel..
  - Surrounded on four sides by one or more of the following land cover types: urban-suburban, landfill, or agriculture developed.
  - Has no stream, wetland, riparian, or serpentine land cover type within the site.

  These mapped sites are the only areas eligible for the land cover fee in Zone C. (Similar sites not mapped or that do not meet all of the four criteria above pay the 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.

The remainder of the Plan area not mapped as Zones A, B, or C occurs almost entirely in the three participating cities. Because natural and agricultural land cover types are almost entirely absent from these areas, the land cover fee is not charged in these areas on covered activities subject to the Plan. Only the nitrogen deposition fee is charged in these urban areas (see Chapter 4).

Table 2.5 shows an assessment of the impacts of development in each fee zones on each of the Plan's biological goals. The biological goals are explained in Chapter 5 of the Plan.

The relative development fee amount in each fee zone is based on the impacts of development in each Zone on each of the Plan's biological goals. **Table 2.6** shows the calculation of the Zone A, B and C weighting factors. As shown, goals for which development in a given fee zone one will have high impacts are valued at 1.0, goals for which development will have moderate impacts are valued at 0.75, and goals for which development will have low impacts are valued at 0.25. Based on this analysis, overall, each acre of land impact in Zone C is weighted at 25 percent of the impact on the Plan's biological goals as an acre of Zone A impact. Each acre of land impact in Zone B is weighted at 70 percent of the impact on the Plan's biological goals as an acre of impact in Zone A.

Table 2.5: Importance of Fee Zones to Plan Biological Goals

Plan Biological Goal	Fee Zone Importance to Goal		
	Zone A	Zone B	Zone C
Landscape–Level Goals			
Goal 1a and 1b. Protect and maintain natural and semi-natural landscapes; protect and maintain ecological (natural) processes.	High	Moderate	Low
Goal 2. Maintain or improve opportunities for movement and genetic exchange of native organisms within and between natural communities inside and connecting to areas outside the study area.	High	High	Low
Goal 3: Enhance or restore representative natural and semi-natural landscapes to maintain or increase native biological diversity.	High	Moderate	Low
Natural Community–Level Goals			
Goal 4. Maintain and enhance functional grassland communities that benefit covered species and promote native biodiversity.	High	Moderate	Low
Goal 5. Maintain and enhance functional chaparral and northern coastal scrub communities to benefit covered species and promote native biodiversity.	High	None	None
Goal 6. Maintain and enhance functional oak woodland communities to benefit covered species and promote native biodiversity.	High	Moderate	Low
Goal 7. Maintain and enhance functional conifer woodland communities to benefit covered species and promote native biodiversity.	High	None	None
Goal 8. Improve the quality of streams and the hydrologic and geomorphic processes that support them to maintain a functional aquatic and riparian community to benefit covered species and promote native biodiversity.	High	High	Low
Goal 9. Maintain a functional riparian forest and scrub community at a variety of successional stages and improve these communities to benefit covered species and promote native biodiversity.	High	High	Moderate
Goal 10. Maintain, enhance, and create or restore functional pond, freshwater perennial wetland, and seasonal wetland habitats that benefit covered species and promote native biodiversity.	High	High	Low
Species–Level Goals			
Goal 11. Improve the viability of existing Bay checkerspot butterfly populations, increase the number of populations, and expand the geographic distribution to ensure the long-term persistence of the species in the study area.	High	Moderate	Low
Goal 13. Increase the size and sustainability of the breeding population and increase the distribution of breeding and wintering burrowing owls in the study area.	Moderate	High	Moderate
Goal 14. Increase the ability of San Joaquin kit fox to move into and within the study area and provide habitat to increase the likelihood of breeding.	High	Moderate	Low
Goal 15. Provide for the expansion of a breeding population of least Bell's vireos into the study area and increase reproductive success of the least Bell's vireo.	High	High	Low
Goal 16. Conserve existing populations of the foothill yellow-legged frog population where possible and increase the overall population of foothill yellow-legged frog in biologically appropriate locations in the study area.	High	Low	None

Plan Biological Goal	Fee Zone Importance to Goal		
	Zone A	Zone B	Zone C
Goal 17. Conserve existing populations of California red-legged frog, California tiger salamander, and western pond turtle where possible, and increase the number of individuals and expand the overall distribution of populations of these species in biologically appropriate locations within the study area to maintain viable populations and contribute to the regional recovery of these species.	High	Moderate	Low
Goal 18. Increase the population size of tricolored blackbird to enhance the viability of the species in the study area.	High	High	Low
Goal 20. Maintain viability, protect, and increase the size and number of populations of covered serpentine plant species, including Coyote ceanothus, Santa Clara Valley dudleya, Metcalf Canyon jewelflower, most beautiful jewelflower, smooth lessingia, fragrant fritillary, Mt. Hamilton thistle, Loma Prieta hoita, and Tiburon Indian paintbrush, within the study area.	High	Low	None
Goal 21. Protect and increase the size and number of Loma Prieta hoita within the study area.	High	Low	Low

Source: Santa Clara Valley Habitat Plan Chapter 5.

Development Fee and Projected Revenue

Plan costs related to mitigating impacts on non-serpentine land cover types, calculated in Table 2.4, is divided by the acreage of projected impacts to determine the development fee per acre. **Table 2.7** shows the total projected acres of impacts for each land cover type in the Plan area. For each land cover, the impact acreage is multiplied by the weighting factor from Table 2.6 for the corresponding fee zone to determine the weighted equivalent acres of impacts. This approach is similar to the use of "equivalent dwelling units" in other development fee studies and is used to develop a common denominator over which to spread costs. As explained above, acres of impacts associated with conservation strategy implementation on Reserve Lands are excluded.

The funding needs for the land cover fee and the fee per acre by zone are shown in **Table 2.8**. To avoid double counting the funding requirement is reduced by costs associated with the impacts of nitrogen deposition on serpentine land cover types and that will be collected through the nitrogen deposition fee described in Chapter 4. The remaining cost for non-serpentine mitigation activities is divided by the total weighted impact acres from Table 2.7 to determine the land cover fee per weighted impact acre. This fee is multiplied by the weighting factor for each fee zone to determine the land cover fee per acre for impacts from covered activities in Zones A, B and C.

The land cover development fee will be applied to all land covers in Zones A, B, and C including serpentine land covers. As described in the next chapter, the serpentine fee is calculated net of the amount of the land cover fee so that the serpentine fee only includes the additional costs associated with mitigation on serpentine land cover types. This approach, isolating the additional costs associated with mitigation above the level of the land cover fee, is used for the nitrogen deposition, burrowing owl, and wetland fees as well. Thus the land cover fee will represent the base level cost of mitigation for all covered activities across all three zones, with the other fees added in those locations where the associated increased mitigation costs are applicable.

Table 2.6: HCP Impact By Zone

Habitat Plan Biological Goal	Zone A Impact	Zone A Weighting Factor	Zone B Impact	Zone B Weighting Factor	Zone C Impact	Zone C Weighting Factor
Goal 1	High	1.00	Moderate	0.75	Low	0.25
Goal 2	High	1.00	High	1.00	Low	0.25
Goal 3	High	1.00	Moderate	0.75	Low	0.25
Goal 4	High	1.00	Moderate	0.75	Low	0.25
Goal 5	High	1.00	None	-	None	-
Goal 6	High	1.00	Moderate	0.75	Low	0.25
Goal 7	High	1.00	None	-	None	-
Goal 8	High	1.00	High	1.00	Low	0.25
Goal 9	High	1.00	High	1.00	Moderate	0.75
Goal 10	High	1.00	High	1.00	Low	0.25
Goal 11	High	1.00	Moderate	0.75	Low	0.25
Goal 13	Moderate	0.75	High	1.00	Moderate	0.75
Goal 14	High	1.00	Moderate	0.75	Low	0.25
Goal 15	High	1.00	High	1.00	Low	0.25
Goal 16	High	1.00	Low	0.25	None	-
Goal 17	High	1.00	Moderate	0.75	Low	0.25
Goal 18	High	1.00	High	1.00	Low	0.25
Goal 20	High	1.00	Low	0.25	None	-
Goal 21	High	1.00	Low	0.25	Low	0.25
Total Impact		18.75		13.00		4.75
Impact Compared To Zone A		**1.00**		**0.69**		**0.25**

Source: Table 2.5.

Table 2.7: Weighted Equivalent Impacts

Land Cover Type	Estimated Permanent Impacts (acres)[1]	Fee Zone	Serpen -tine?	Weight- ing Factor	Weighted Equiva- lent Acres
California Annual Grassland	1,719	A	No	1.00	1,719
Serpentine Bunchgrass Grassland	527	A	Yes	1.00	527
Serpentine Rock Outcrop / Barrens	21	A	Yes	1.00	21
Serpentine Seep	-	A	Yes	1.00	-
Rock Outcrop	-	A	No	1.00	-
Northern Mixed Chaparral/Chamise Chaparral	79	A	No	1.00	79
Mixed Serpentine Chaparral	127	A	Yes	1.00	127
Northern Coastal Scrub /Diablan Sage Scrub	170	A	No	1.00	170
Coyote Brush Scrub	10	A	No	1.00	10
Valley Oak Woodland	189	A	No	1.00	189
Mixed Oak Woodland and Forest	1,235	A	No	1.00	1,235
Blue Oak Woodland	122	A	No	1.00	122
Coast Live Oak Forest and Woodland	821	A	No	1.00	821
Foothill Pine - Oak Woodland	44	A	No	1.00	44
Mixed Evergreen Forest	48	A	No	1.00	48
Willow Riparian Forest and Scrub	179	A	No	1.00	179
Central California Sycamore Alluvial Woodland	6	A	No	1.00	6
Mixed Riparian Forest and Woodland	104	A	No	1.00	104
Redwood Forest	108	A	No	1.00	108
Ponderosa Pine Woodland	-	A	No	1.00	-
Knobcone Pine Forest	7	A	No	1.00	7
Coastal and Valley Freshwater Marsh	25	A	No	1.00	25
Seasonal Wetland	15	A	No	1.00	15
Pond	52	A	No	1.00	52
Orchard	625	B	No	0.69	433
Vineyard	37	B	No	0.69	26
Grain, Row-Crop, Hay and Pasture	7,042	B	No	0.69	4,882
Rural - Residential	1,601	B	No	0.69	1,110
Golf Courses / Urban Parks	2,095	B	No	0.69	1,453
Ornamental Woodland	30	A	No	1.00	30
Barren	32	A	No	1.00	32
Small Vacant Sites (various land cover types)	600	C	No	0.25	152
Total	17,670				13,726
Zone A (non-Serpentine)	4,995	A	No	1.00	4,995
Zone B (non-Serpentine)	11,400	B	No	0.69	7,904
Zone C (non-Serpentine)	600	C	No	0.25	152
Subtotal Non-Serpentine	16,995				13,051
Serpentine	675	A	Yes	1.00	675
Total All Impacts	**17,670**				**13,726**
Zone A (Serpentine & non-Serpentine)	5,670	A	NA	1.00	5,670

[1] Acreage data may vary slightly from other tables in Plan due to rounding.

Sources: *Santa Clara Valley Habitat Plan*, Table 4-2; Table 2.6.

Table 2.8: Land Cover Development Fee

Non-Serpentine Land Cover Mitigation Costs	$192,820,000
Less: Non-Serpentine Nitrogen Deposition Impact Costs	(14,930,000)
Net Non-Serpentine Land Cover Mitigation Costs	$177,890,000
Estimated Acres of Impact (weighted)	13,051
Land Cover Impact Costs (Fee) (per acre)	**$13,630**

Fee Zone	*Weighting Factor*	*Fee per Acre*
Zone A	1.00	$13,630
Zone B	0.69	9,450
Zone C	0.25	3,453

Sources: Tables 2.4, 2.6, 2.7, and 4.3.

Total revenue from land cover fees applied across covered activities in Zones A, B, and C over the permit term is shown in **Table 2.9**. The table includes a reduction in the applicable acreage for covered activities by the County of Santa Clara and the Santa Clara County Open Space Authority because of credit that these agencies will receive in lieu of contributing land acquisitions to the reserve system. As explained in Chapter 8 of the Plan, 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. These land acquisitions reduce the fee revenue received under the Plan because the fee obligation is met by land acquisitions in lieu of cash payments.

Table 2.9: Projected Land Cover Development Fee Revenue

Land Cover Zone	**Net Estimated Impact**[1] (acres)	**Impact Costs (Fee)** (per Acre)	**Projected Impact Costs (Fee Revenue)**
Zone A	4,352	$13,630	$59,320,000
Zone B	11,055	9,450	104,470,000
Zone C	450	3,453	1,550,000
Total	15,857		$165,340,000

[1] Excludes impacts associated with plan implementation. Excludes covered activities by Santa Clara County Roads & Airports, Santa Clara County Parks, and the Santa Clara County Open Space Authority (SCVOSA) because fee obligation anticipated to be zero in lieu of enrollment of lands into the reserve system by Santa Clara County Parks and the SCVOSA.

Sources: Tables 2.7 and 2.8; ICF International.

3. Serpentine Impact Fee

Plan actions required to mitigate impacts to serpentine land cover types are substantially more costly per acre of impact than mitigation actions for impacts to other land cover types. To reflect the higher mitigation costs, the serpentine impact fee will be assessed on impacts to the four serpentine land cover types:

- Serpentine bunchgrass grassland;
- Serpentine outcrops and barrens;
- Serpentine seep; and
- Mixed serpentine chaparral.

As explained in the last chapter the fee is calculated net of the base land cover fee so it will be charged in addition to the land cover fee that applies to the fee zone in which the serpentine land cover types occur.

The causes for increased mitigation costs of impacts on serpentine land cover types were explained in the last chapter in the text associated with Table 2.1. In addition, the preservation ratio for serpentine land cover types is higher than for other land cover types (see Table 2.2).

The serpentine fee is calculated using the same approach used for the land cover fee. Using the appropriate mitigation share for serpentine reserve system lands (acquired vs. acquired, managed, and monitored) we calculate the share of Plan costs associated with serpentine mitigation. **Table 3.1** shows the Plan costs related to mitigating impacts on serpentine land cover types based on applying the mitigation shares from Table 2.3 to the net costs from Table 2.1 in the prior chapter.

Table 3.1: Serpentine Mitigation Costs

Budget Category	Net Costs	Mitigation Requirement	Mitigation Costs
Program Administration	$6,490,000	55.9%	$3,630,000
Land Acquisition			
Acquisition[3]	49,220,000	54.8%	26,970,000
Site Improvements	1,470,000	54.8%	810,000
Due Diligence & Pre-acquisition Surveys	1,410,000	54.8%	770,000
Habitat Restoration/Creation	-	55.9%	-
Reserve Management and Maintenance	11,170,000	55.9%	6,240,000
Monitoring, Research, and Scientific Review	8,690,000	55.9%	4,860,000
Contingency Fund	2,094,000	55.9%	1,170,000
Total	$80,544,000		$44,450,000

Sources: Tables 2.1 and 2.3.

Plan costs related to mitigating impacts on serpentine land cover types, calculated in Table 3.1, is divided by the acreage of projected impacts to determine the development fee per acre. Total projected acres of impacts for serpentine land cover type in the Plan area were already explained and shown in Table 2.7 in Chapter 2.

The funding needs for the serpentine fee and the fee per acre by zone are shown in **Table 3.2**. To avoid double counting the funding requirement is reduced by costs associated with the impacts of nitrogen deposition on serpentine land cover types and that will be collected through the nitrogen deposition fee described in Chapter 4.

Table 3.2: Serpentine Development Fee and Projected Fee Revenue

Serpentine Mitigation Costs		$44,450,000
Less: Serpentine Nitrogen Deposition Impact Costs		(5,310,000)
Net Serpentine Mitigation Costs		$39,140,000
Estimated Acres of Impact (weighted)		675
Serpentine Mitigation Costs per Acre		$57,985
Less: Land Cover Fee per Acre		(13,630)
Serpentine Impact Costs (Fee) (per acre)		**$44,355**
Fee Zone	*Weighting Factor*	*Fee per Acre*
Zone A	1.00	$44,355
Zone B	0.69	30,753
Zone C	0.25	11,237

Sources: Tables 2.6, 2.7, 2.8, 3.1,and 4.1; ICF International.

The remaining cost for serpentine mitigation activities is divided by the total weighted impact acres from Table 2.7 to determine the gross serpentine fee per weighted impact acre. Deducting the land cover fee results in the net serpentine fee per acre. This fee is multiplied by the weighting factor for each fee zone to determine the serpentine fee per acre for impacts from covered activities in Zones A, B and C. As mentioned above, the only applicable fee is likely to be for Zone A because serpentine land cover types are primarily found in Zone A

Table 3.3 shows total revenue from serpentine fees applied across covered activities in serpentine land cover types over the permit term. The table includes a reduction in the applicable acreage for covered activities by the County of Santa Clara and the Santa Clara County Open Space Authority because of credit that these agencies will receive in lieu of contributing land acquisitions to the reserve system.

Table 3.3: Serpentine Impacts

Land Cover Zone	Net Estimated Impact[1] (acres)	Impact Costs (Fee) (per Acre)	Projected Impact Costs (Fee Revenue)
Zone A	660	$44,355	$29,270,000
Zone B	-	30,753	-
Zone C	-	11,237	-
Total	660		$29,270,000

[1] Excludes impacts associated with plan implementation. Excludes covered activities by Santa Clara County Roads & Airports, Santa Clara County Parks, and the Santa Clara County Open Space Authority (SCVOSA) because fee obligation anticipated to be zero in lieu of enrollment of lands into the reserve system by Santa Clara County Parks and the SCVOSA.

Sources: Tables 2.7 and 3.2; ICF International.

4. Nitrogen Deposition Fee

The nitrogen deposition fee is based on the Plan costs related to mitigating the impacts of airborne nitrogen deposition related to development in the Plan area. As described in Chapter 4 of the Plan, serpentine grassland and serpentine covered species in the Plan 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 Plan. Serpentine plants covered by the Plan that will be adversely affected by increased nitrogen deposition include Metcalf Canyon jewelflower, most beautiful jewelflower, smooth lessingia, Tiburon paintbrush, and fragrant fritillary.

As explained in Chapter 2, serpentine lands in the reserve system will have higher average per-acre costs for reserve management and maintenance, and for monitoring, research, and scientific review, than costs for non-serpentine land covers. These higher costs result from the number of covered species occurring in serpentine land cover types[9] and the costs of 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 additional costs above average per acre costs included in the land cover development fee. These costs are calculated in **Table 4.1**. As described in Chapter 3, the above average per-acre acquisition costs for serpentine lands are included in the serpentine fee and is not included in the nitrogen deposition fee.

[9] At least seven covered wildlife species and all nine covered plants occupy one or more serpentine land-cover types for all or part of their life-history.

Table 4.1: Additional Costs of Nitrogen Deposition Impacts on Serpentine Land Cover Types

Serpentine Reserve Management and Maintenance Cost per Acre	$2,313	
Serpentine Monitoring, Research & Scientific Review Cost per Acre	1,799	
Total Serpentine Management & Monitoring Cost per Acre		$4,112
Non-serpentine Reserve Management and Maintenance Cost per Acre	$1,524	
Non-Serpentine Monitoring, Research & Scientific Review Cost per Acre	623	
Total Non-Serpentine Management & Monitoring Cost per Acre		$2,147
Additional Serpentine Management & Monitoring Cost per Acre		$1,965
Serpentine Acres Acquired for Mitigation		2,700
Additional Management & Monitoring Cost Due to Serpentine Mitigation		$5,310,000

Sources: Tables 2.1 and 2.2.

In addition to serpentine grassland, 13 other land cover types in the Plan area are identified as sensitive or potentially sensitive to nitrogen deposition. For land cover types known to be sensitive to nitrogen deposition,[10] 20 percent of estimated mitigation costs are related to nitrogen deposition. For land cover types that may be sensitive to nitrogen deposition,[11] 10 percent of estimated mitigation costs are related to nitrogen deposition. **Table 4.2** shows the non-serpentine land acquisition that is needed to offset nitrogen deposition. Footnote 1 in that table explains the source of the estimated mitigation costs.

Table 4.3 shows the total estimated Plan cost related to the non-serpentine reserve acreage needed to offset nitrogen deposition.

[10] Land cover types known to be sensitive to nitrogen deposition are northern mixed and serpentine chaparral, northern coastal scrub, mixed oak woodland, foothill pine-oak woodland, mixed evergreen forest, and redwood forest.

[11] 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.

Table 4.2: Non-Serpentine Land Cover Types Affected by Nitrogen Deposition

	Mitigation Acres Acquired	Proportional Effect from N-Deposition[1]	Acreage Needed to Offset N-deposition
California Annual Grassland	5,157	10%	516
Northern Mixed Chaparral / Chamise Chaparral	79	20%	16
Northern Coastal Scrub / Diablan Sage Scrub	170	20%	34
Valley Oak Woodland	378	10%	38
Mixed Oak Woodland and Forest	2,470	20%	494
Blue Oak Woodland	244	10%	24
Coast Live Oak Forest and Woodland	1,642	10%	164
Foothill Pine - Oak Woodland	55	20%	11
Mixed Evergreen Forest	60	20%	12
Redwood Forest	108	20%	22
Coastal and Valley Freshwater Marsh	50	10%	5
Seasonal Wetland	30	10%	3
Pond	104	10%	10
Total	10,547		1,349

[1] Effects from nitrogen deposition assigned as 20 percent if identified in CEC (2006) as a California ecosystem known to be sensitive to nitrogen-deposition, and 10 percent if identified in same publication as an ecosystem that may be sensitive to nitrogen deposition. Land-cover types not shown are not thought to be sensitive to nitrogen deposition.

Sources: California Energy Commission. 2006. Impacts of Nitrogen Deposition on California Ecosystems and Biodiversity. Prepared by University of California, Santa Barbara, and Creekside Center for Earth Observation. Public Interest Energy Research Program Publication CEC-500-2005-165. Available at http://www.energy.ca.gov/2005publications/CEC-500-2005-165/CEC-500-2005-165.PDF; Table 2.2.

Table 4.3: Mitigation Costs for Non-Serpentine Land Cover Types Affected by Nitrogen Deposition

Non-Serpentine Habitat Plan Cost per Acre	$11,069
Non-Serpentine Reserve Acres Needed to Offset N-deposition	1,349
Total Non-Serpentine Land Cover Mitigation Cost Needed to Offset N-deposition	$14,930,000

Source: Tables 2.1 and 4.2.

The nitrogen deposition fee will be charged based on the average daily vehicle trip generation of the development project. Vehicle emissions are a major source of new nitrogen emissions in the Plan area. The impact fees charged to development projects will be based on the projected trip generation estimated in the traffic study for the proposed development conducted by the jurisdiction in which the project is located. If the development does not require a traffic study, the jurisdiction may estimate trip generation based on standard trip generation factors, such as those published by the Institute of Transportation Engineers (ITE). It is expected that the traffic studies for proposed development projects will consider factors that may reduce vehicle trip generation, such as the availability of transit services, the mix of uses in the development and adjacent areas, and the density of the development.

To calculate the nitrogen deposition fee, vehicle trip growth from development in the Plan area is estimated using growth projections developed by the Association of Bay Area Governments (ABAG) and the local partner cities. Projected growth in dwelling units and employment is converted to an estimate of vehicle trip growth using the daily trip generation rates shown in **Table 4.4.** Trip rates are based on average rates published in ITE's *Trip Generation.* To account for the lower trip generation rates associated with development near transit stations, a 44 percent reduction in trip generation is assumed for development within 2,000 feet of a transit station, based on the findings of a recent study of trip generation rates for transit-oriented development. The sites included in the survey ranged from 50 feet to 3,800 feet from the nearest transit station.

Table 4.4: Trip Generation Rates

Land Use	ITE Land Use Category	Base Trips per DU/ Employee	Trips per DU/ Employee Near Transit[1]
Residential			
Single Family	210 - Single Family Detached Housing	9.57	5.36
Multifamily	220 - Apartment	6.72	3.76
Nonresidential			
Manufacturing, Wholesale, Transportation	140 - Manufacturing	2.31	1.29
Retail	820 - Shopping Center[2]	21.47	12.02
Financial and Professional Services	710 - General Office Building	3.32	1.86
Health, Education and Recreation	610 - Hospital	5.20	2.91
Other	710 - General Office Building	3.32	1.86

[1] Trip rate for development near transit is estimated to be 44% lower than general ITE trip rates, based on research showing an average 44% reduction in daily trip rates for residential development near transit stations, compared to average rates reported by ITE.

[2] ITE Trip Generation does not provide trip rates per employee for most retail development. Trip rate is based on average rate of 42.94 weekday trips per 1,000 squre feet, and assumes an average of 500 square feet per employee.

Sources: ITE Trip Generation, 7th Edition; Cervero, R. and G. B. Arrington, "Vehicle Reduction Impacts of Transit-Oriented Housing", Journal of Public Transportation, Vol. 11, No. 3, 2008.

Table 4.5 shows the projected average daily trip generation from new development during the permit term. In general, growth in dwelling units and employees is estimated based on ABAG projections of 2035 development, which are the longest-range projections available for the Plan area. Development at the end of the permit term is estimated by assuming that the linear growth

rate projected through 2035 will continue to the end of the permit term. To estimate the trip generation reductions resulting from development near transit, the City of Morgan Hill projected the amount of development that will occur within 2,000 feet of the Morgan Hill Caltrain Station. The City of San José provided projections of development both within 2,000 feet of transit stations and further from transit stations. Projected development near the Gilroy Caltrain Station was not available; however, as a conservative estimate, it is assumed that five percent of development in Gilroy will occur within 2,000 feet of the Caltrain Station because this area is largely built-out.

Air pollution simulation modeling is used to estimate the percentage of nitrogen deposition in the habitat areas that results from the growth in air pollution emissions within the Plan area, as opposed to existing air pollution within the Plan area, and air pollution (existing and new) that is transported from other regions to the Plan area (see summary in Plan Chapter 4 and the technical report in Appendix E of the Plan). The modeling estimated that 49 percent of nitrogen deposition on habitat areas in 2035 will come from new development and associated vehicle traffic generated locally within the study area, and this will increase to 51 percent by the end of the permit term. Taking the mid-point of these two estimates, this study allocates 50 percent of the Plan costs related to mitigating nitrogen deposition impacts to new development in the study area through the nitrogen deposition fee.

Table 4.6 shows the nitrogen deposition fee per vehicle trip and projected fee revenues. The fee includes the Plan area's share of the costs to mitigate nitrogen deposition on both serpentine and non-serpentine lands in the reserve system.

The nitrogen deposition fee will be collected on covered activities throughout the Plan area including in Zones A, B, and C and in the predominantly urban areas outside those zones.

Table 4.5: Projected Plan Area Vehicle Trip Growth During Permit Term

	Gilroy[1]	Morgan Hill	San Jose	Unincor-porated	Total	Daily Trip Rate	Daily Trip Generation
Development within 2,000' of Transit Stations							
Residential			Dwelling Units				
Single Family	215	20	29	-	264	5.36	1,000
Multifamily	185	1,415	62,319	-	63,918	3.72	238,000
Total	400	1,435	62,348	-	64,183		
Nonresidential			Employees				
Manufacturing, Wholesale, Transportation	95	63	9,660	-	9,818	1.19	12,000
Retail	187	420	21,090	-	21,697	12.02	261,000
Financial and Professional Services	135	231	50,802	-	51,168	1.85	95,000
Health, Education and Recreational Services	499	153	87,069	-	87,721	2.91	255,000
Other	212	-	44,166	-	44,378	1.85	82,000
Total	1,128	867	212,787	-	214,782		
Subtotal - Development within 2,000' of Transit Stations							944,000
Development Not Near Transit Stations							
Residential			Dwelling Units				
Single Family	4,092	2,866	3,525	8,724	19,208	9.57	184,000
Multifamily	3,508	1,059	54,127	-	58,694	6.65	390,000
Total	7,600	3,925	57,652	8,724	77,901		
Nonresidential			Employees				
Manufacturing, Wholesale, Transportation	1,805	3,818	38,378	4,592	48,593	2.13	104,000
Retail	3,553	2,620	18,046	958	25,177	21.47	541,000
Financial and Professional Services	2,565	3,409	56,035	3,042	65,051	3.30	215,000
Health, Education and Recreational Services	9,481	8,027	96,038	2,104	115,650	5.20	601,000
Other	4,028	3,500	48,716	3,496	59,740	3.30	197,000
Total	21,432	21,374	257,213	14,192	314,211		
Subtotal - Development Not Near Transit Stations							2,232,000
Total Projected Daily Trip Generation							3,176,000

[1] Growth projections for the area near Gilroy Caltrain station. As a conservative estimate, it was assumed that 5% of Gilroy's growth will occur within 2,000 feet of the Caltrain Station because this area is largely built out.

Sources: ABAG 2007 Projections; San Jose Planning Department; Morgan Hill Growth Projections 2009; Table 4.4.

Table 4.6: Nitrogen Deposition Costs and Fee per Vehicle Trip

Serpentine Management & Monitoring Costs Related to Nitrogen Deposition	$5,310,000
Other Mitigation Costs Related to Nitrogen Deposition	14,930,000
Total Mitigation Costs Related To Nitrogen Deposition	$20,240,000
Share of Nitrogen Deposition From New Development Within Plan Area	50%
Net Mitigation Costs Related To Nitrogen Deposition	$10,120,000
Plan Area Vehicle Trip Growth (2010-2060)	3,176,000
Nitrogen Deposition Costs (Fee) (per new vehicle trip)	**$3.19**

Sources: Santa Clara Valley Habitat Plan, Appendix E; Tables 4.1, 4.3 and 4.5.

5. Western Burrowing Owl Fee

The Plan proposes to undertake an aggressive suite of measures aimed at reversing the declining trend of the burrowing owl population in Santa Clara County. The goal of the Plan is to establish a burrowing owl population in the permit area. The general approach will be to increase the numbers, distribution, and connectivity of burrowing owl colonies in the permit area. The burrowing owl conservation strategy is described in more detail in Chapter 5 of the Plan, with an expanded discussion in Appendix M of the Plan.

A separate fee is needed to fund the burrowing owl conservation strategy because (1) occupied nesting habitat overlaps with few other covered species, and (2) conservation actions include costs that are unique and go beyond the cost of land acquisition that is addressed by the land cover fee. The burrowing owl fee per acre is shown in **Table 5.1.**

Table 5.1: Burrowing Owl Mitigation Costs and Fee

Burrowing Owl Mitigation Costs	$8,570,000
Contingency[1]	260,000
Total	$8,830,000
Acres of Impact	198
Burrowing Owl Mitigation Costs (Fee) (per Acre)	$44,596

[1] Contingency based on three percent of costs, consistent with the cost model completed for the Plan.

Sources: Table 2.1; ICF International.

6. Wetland Mitigation Fee

The wetland mitigation fee will be charged to Permittees or private project proponents that have direct impacts on wetlands, ponds, streams or riparian woodland/scrub. This fee is a supplemental fee that will be charged in addition to the base land cover fee for the fee zone where the impacts will occur.

As described in Chapter 5 of the Plan, mitigation requirements for wetland, stream, pond, and riparian woodland/scrub impacts include both preservation and restoration/creation. The wetland mitigation fee will cover the cost of wetland, stream, and riparian restoration or creation, but not preservation of existing wetlands. The cost of preservation of these land cover types is included in the base land cover development fee because land prices are not expected to be significantly affected by the presence of wetlands, 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 development fee (according to fee zone) towards land acquisition and the conservation program as a whole, as well as a wetland mitigation fee to cover the costs of successful restoration or creation.

The wetland mitigation fee is intended to pay the full cost of the habitat restoration or creation needed to mitigate for development impacts, including design, implementation, and post-construction monitoring. The fee also pays the cost of environmental compliance for restoration projects, permit-term management, and biological monitoring on restored wetlands. Management and monitoring following the end of the permit term are higher per acre compared to other land covers. This incremental cost is allocated solely to the wetland mitigation fee through a higher endowment component (see Chapter 8). Wetland mitigation fees vary by wetland type to account for the different costs of restoration and the different mitigation ratios required.

Project proponents may propose to the Implementing Entity to restore or create, manage, and monitor their own pond mitigation site in lieu of paying all or part of the wetland fee. The Implementing Entity must approve requests to perform aquatic restoration or creation in lieu of paying the wetland mitigation 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 site as part of the Reserve System.

Table 6.1 shows the calculation of the wetland mitigation fees for each type of wetland land cover. The fees are based on the per-acre cost to design, construct and monitor wetland restoration and creation projects, as well as management and monitoring overhead associated with restored wetlands, as estimated in the Plan cost model. The wetland mitigation fees include all costs from the Habitat Restoration/Creation category of the cost model.

For each land cover type requiring habitat restoration, the estimated cost of restoring or creating an acre of habitat is multiplied by the mitigation ratio that applies to that land cover type. The required mitigation ratios are shown in Table 5-13 of the Plan. These ratios are the amount of habitat restoration or creation required under the Plan to mitigate impacts to these land covers.

Table 6.1: Wetland Mitigation Costs per Acre / Linear Foot

Habitat Restoration / Creation Cost Category	Willow and mixed riparian forest, scrub, and woodland (per acre)	Central California sycamore alluvial woodland (per acre)	Coastal and Valley Freshwater marsh (per acre)	Seasonal wetlands (per acre)	Ponds (per acre)	Stream (per linear ft.)
Operating Plus Capital Equipment Costs	$34,700	$34,700	$34,700	$34,700	$34,700	$4
Habitat Restoration / Creation Construction Costs						
Design	1,060	1,060	1,060	1,060	1,060	5
Plans, Specifications, and Engineering	10,600	9,275	12,720	14,310	13,250	69
Bid Assistance	212	212	318	318	318	1
Pre-construction Surveys	390	390	104	104	104	-
Construction	42,400	37,100	63,600	71,550	53,000	276
Construction Oversight & Monitoring	2,120	1,855	3,180	3,578	2,650	14
Post-construction Monitoring & Maintenance	12,720	11,130	9,540	10,733	7,950	41
Restoration Repair	6,360	5,565	9,540	10,733	7,950	41
Contingency[1]	12,420	11,029	16,050	17,899	13,983	67
Total Per Acre Restoration Cost	$122,982	$112,316	$150,812	$164,983	$134,965	
Total Per Linear Foot Cost (for streams)						$518
Mitigation Requirement[2]	1.0	2.0	1.0	2.0	1.0	1.0
Mitigation Costs (Fee) (per acre or linear foot)	**$122,982**	**$224,632**	**$150,812**	**$329,966**	**$134,965**	**$518**

[1] Cost model includes a 3 percent contingency for restoration staffing and overhead, and a 15 percent contingency for other habitat restoration/creation costs.

[2] Habitat restoration or creation required per acre of impact (per linear foot for streams).

Sources: *Santa Clara Valley Habitat Plan,* Tables 4-2, 5-13, G-0, and G-4.

Table 6.2 shows the projected wetland mitigation fee revenue based on projected impacts to land covers subject to the wetland mitigation fees. Additional habitat restoration and creation beyond the amount needed to mitigate projected development impacts is included in the Plan. Therefore, the wetland mitigation fees will not fund all of the habitat restoration and creation included in the Plan.

Table 6.2: Projected Wetland Mitigation Costs

Land Cover Type	Estimated Impacts (acres, miles for streams)[1]	Impact Costs (Fee) (per Acre/ per Linear Foot)	Projected Impact Costs (Fee Revenue)
Willow Riparian Forest and Scrub	104	$122,982	$12,790,000
Central Calif. Sycamore Woodland	6	224,632	1,350,000
Mixed Riparian Forest and Woodland	179	122,982	22,010,000
Freshwater Marsh	25	150,812	3,770,000
Seasonal Wetland	15	329,966	4,950,000
Pond	52	134,965	7,020,000
Streams	9.4	518	25,710,000
Total Projected Wetland Mitigation Fee Revenue			$77,600,000

[1] Excludes impacts associated with plan implementation. Acreage data may vary slightly from other tables in Plan due to rounding.

Sources: Tables 2.7 and 6.1.

7. Temporary Impact Fees

As described in Chapter 2 of the Plan, there are many covered activities that are ongoing and that result in small, localized, temporary impacts on natural land cover types. 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. These activities will be subject to fees for temporary impacts. Chapter 9 of the Plan identifies the specific activities subject to the temporary impact fee.

The temporary impact fee is calculated as a percentage of the base land cover, serpentine, or wetland mitigation fee based on the duration of the temporary impact. Projects subject to the temporary impact fee will pay the fee in one of two ways:

If the frequency of the impact can be predicted during the permit term, the applicant may pay a discounted fee for infrequent treatments, adjusted from the full development fee. The total fee will be calculated using the formula below.

$$\text{Temporary Impact Fee} = \textit{Applicable Permanent Fee} \times \textit{Activity Footprint in Acres} \times (F + R) / 50$$

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. If the project proponent conducts active, on-site restoration to restore the site to pre-project or ecologically improved conditions, the temporary impact fee may be used if the site recovers within 5 years of the end of the covered activity. Temporary impacts are not subject to the nitrogen deposition fee.

The time expected for a site to return to pre-project conditions will be determined on a case-by-case basis and will vary depending on site conditions, the intensity of the temporary impact, and whether active restoration is implemented on site. The project proponent must document that the disturbance and site recovery occurred at or better than the predicted timeline, and whether a site is returned to pre-project or ecologically improved conditions using active or passive means.

OR

The applicant may pay the entire applicable permanent development fee based on the footprint of the activity and retain the ability to disturb the area repeatedly during the permit term.

Temporary impacts that occur within wetland land cover types will be assessed a temporary wetland mitigation fee according to the formula shown above based on the applicable wetland mitigation fee (see Table 6.1). The base temporary impact fee will also be assessed on the footprint of wetland impacts (i.e., projects with wetland impacts pay the temporary wetland fee and the base temporary impact fee).

As explained in more detail in Chapter 6 regarding permanent impact wetland mitigation fees, subject to certain criteria applicants have the option of developing and implementing their own wetland restoration project.

Table 7.1 shows projected temporary impact fee revenue from construction and operation and maintenance activities during the permit term. **Table 7.2** shows the projected temporary wetland mitigation fee revenue. The area and duration of temporary impacts is based on the temporary impact estimates shown in Table 4-3 of the Plan and the impact analysis conducted by the Plan's consultants. The duration of temporary construction impacts depends on the nature of the construction activities to be undertaken. Operations and maintenance impacts are assumed to occur every other year. A temporary fee would also be imposed for the Western Burrowing Owl fee.

Table 7.1: Temporary Land Cover Mitigation Fee Revenue

Impact Type and Land Cover Zone	Land Cover Fee (per acre)	Average Duration of Impacts	Temporary Fee Percent of Full Fee[1]	Temporary Fee (per acre)	Estimated Impacts[2] (acres)	Temporary Fee Revenue
Temporary Construction Impacts						
Land Cover Fee						
Zone A	$13,630	1 Year	4%	**$545**	571	$311,195
Zone A	13,630	3 Years	6%	**818**	102	83,436
Zone B	9,450	1 Year	4%	**378**	246	92,988
Zone B	9,450	3 Years	6%	**567**	108	61,236
Zone C	3,453	1 Year	4%	**138**	-	-
Serpentine Fee	44,355	1 Year	4%	**1,774**	42	74,508
Subtotal Estimated Fee Obligation						$623,363
Estimated In-Lieu Credit[3]						(179,215)
Total Estimated Fee Revenue						$444,148
Temporary Operations and Maintenance Impacts						
Land Cover Fee						
Zone A	$13,630	Every Other Yr.	50%	**$6,815**	783	$5,336,145
Zone B	9,450	Every Other Yr.	50%	**4,725**	118	557,550
Zone C	3,453	Every Other Yr.	50%	**1,727**	-	-
Serpentine Fee	44,355	Every Other Yr.	50%	**22,178**	50	1,108,900
Subtotal Estimated Fee Obligation						$7,002,595
Estimated In-Lieu Credit[3]						(5,389,670)
Total Estimated Fee Revenue						$1,612,925
Total Estimated Fee Obligation (rounded)						$7,630,000
Total Estimated In-Lieu Credit (rounded)[3]						(5,570,000)
Total Estimated Land Cover Temporary Fee Revenue (rounded)						**$2,060,000**

[1] Assumes minimum duration of temporary impacts will be two years, with impacts occurring in one year and an additional year to return to pre-project conditions.

[2] Excludes impacts associated with plan implementation.

[3] Represents covered activities by Santa Clara County Roads & Airports, Santa Clara County Parks, and the Santa Clara County Open Space Authority (SCVOSA). Fee obligation anticipated to be zero in lieu of enrollment of lands into the reserve system by Santa Clara County Parks and the SCVOSA.

Sources: Tables 2.8 and 3.2; ICF International.

Table 7.2: Temporary Wetland Mitigation Fee Revenue

Land Cover Type	Restoration Fee per Acre (per Foot for Streams)	Average Duration of Impacts	Tempo-rary Fee Percent of Full Fee[1]	Temp. Restoration Fee per Acre (per Foot for Streams)	Estimated Impacts (acres, miles for streams)[2]	Temporary Restoration Fee Revenue
Temporary Construction Impacts						
Willow Riparian Forest and Scrub	$122,982	1 Year	4%	**$4,919**	68	$334,492
Central California Sycamore Alluvial Woodland	224,632	1 Year	4%	**8,985**	1	8,985
Mixed Riparian Forest and Woodland	122,982	1 Year	4%	**4,919**	46	226,274
Coastal and Valley Freshwater Marsh	150,812	1 Year	4%	**6,032**	7	42,224
Seasonal Wetland	329,966	1 Year	4%	**13,199**	-	-
Pond	134,965	1 Year	4%	**5,399**	5	26,995
Streams	$518		4%	**$21**	46.2	$5,122,656
Subtotal - Temporary Wetland Mitigation Fees for Construction Impacts						$5,761,626
Temporary Operations and Maintenance Impacts						
Willow Riparian Forest and Scrub	$122,982	Every Other Yr.	50%	**$61,491**	33	$2,029,203
Central California Sycamore Alluvial Woodland	224,632	Every Other Yr.	50%	**112,316**	4	449,264
Mixed Riparian Forest and Woodland	122,982	Every Other Yr.	50%	**61,491**	49	3,013,059
Coastal and Valley Freshwater Marsh	150,812	Every Other Yr.	50%	**75,406**	-	-
Seasonal Wetland	329,966	Every Other Yr.	50%	**164,983**	1	164,983
Pond	134,965	Every Other Yr.	50%	**67,483**	3	202,449
Streams	$518		50%	**$259**	1.7	$2,324,784
Subtotal - Temporary Wetland Mitigation Fees for O&M Impacts						$8,183,742
Total Estimated Wetland Mitigation Temporary Fee Revenue (rounded)						**$13,950,000**

[1] Assumes minimum duration of temporary impacts will be two years, with impacts occurring in one year and an additional year to return to pre-project conditions.

[2] Excludes impacts associated with plan implementation. Acreage data may vary slightly from other tables in Plan due to rounding. All entities will pay wetland mitigation fees.

Sources: Table 6.1; ICF International.

8. Endowment Cost Component

The reserve system under the requirements of the Wildlife Agencies as stated in the Plan will require management and monitoring after the permit term. To guarantee funding for these post-permit costs, an endowment will be gradually created during the permit term. It is intended that, 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.

To create the endowment, an endowment cost component will be included in all Plan fees that represent costs associated with post-permit management and monitoring of the reserve system. The endowment cost component is the only planned source for contributions to the endowment fund. The endowment fund will be completely funded by fee payments from Permittees and project proponents. The endowment must be fully funded before the end of the permit term because the Plan must provide an assurance that funding will be available for management and monitoring of the reserve system in perpetuity in order to receive incidental take permits. The incidental take permits are necessary to allow the covered activities to take place. Therefore, it is justified to use fees imposed on covered activities to fully fund the endowment for perpetual reserve management and monitoring.

The cost of funding the endowment will be allocated in proportion to the fees charged to fund Plan implementation during the permit term because the fees paid by a project represent the cost to mitigate the project's impacts. In this manner, the cost of funding the endowment is allocated in proportion to the impacts caused by each project.

The Plan cost model estimates that annual post-permit reserve management and monitoring costs would be approximately $3,090,000, in current dollars. An endowment fund model is used to estimate the level of contributions to the fund that will be needed to generate a fund balance at the end of the permit term (50 years) that can support reserve management and monitoring in perpetuity.

The endowment fund model is based on two assumptions in addition to the length of the permit term and annual post-permit costs. First, the model requires an assumption about the real (after inflation) rate of interest earnings on the growing endowment fund balance during the permit term. Annual real returns on endowment fund balances are assumed to equal 3.25 percent. This assumption is 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 (CDFG). The 3.25 percent annual real rate of return is net of NFWF administrative fees. NFWF has a more recent agreement with CDFG that uses a 3.50 percent rate of earnings growth. The endowment model uses the more conservative rate of 3.25 percent. The County of Santa Clara Finance Agency corroborated this assumption based on their fund management experience.

Second, the endowment model must make an assumption about the pace of covered activities and consequent development fee revenue flow over the permit term. Endowment funding is based on the pace of development fee revenues, and the timing of the growth in the endowment

fund balance affects interest earnings on that balance. The model assumes that the flow of funding into the endowment fund would occur in equal installments, representing a constant flow of total development fee revenue during the permit term. Of course development fee revenues and therefore endowment funding is likely to vary based on the pace of private development and public agency covered activities over the permit term, probably by substantial amounts. However, the effects of a variable pace are offsetting, i.e. lower endowment fund interest earnings in one year are compensated by higher earnings in other years. Furthermore, as with all the development fees the Plan includes provisions for updates to the fee levels in response to changing conditions so that endowment funding can be adjusted if necessary to ensure an adequate fund balance by the end of the permit term.

Based on an annual revenue requirement of $2,930,000, the endowment would need to equal $90.1 million at the end of the permit term to continue generating that amount in perpetuity. A constant revenue flow of $730,000 annually is needed to build the fund assuming re-investment of all interest earnings over the permit term. Appendix A provides detailed calculations from the endowment fund model.

Annual costs for restored wetlands costs are higher than for other reserve lands so these endowment costs are broken out and allocated solely to wetlands. As shown in **Table 8.1,** over 50 years 11.7 percent of all development fee revenue is needed for annual costs that are constant across all reserve lands, and 12.2 percent of wetland mitigation fee revenue is needed for the additional costs assocated with restored wetlands.

Using the endowment cost factor from Table 8.1, **Table 8.2** shows the endowment fee component for each applicable development fee. For the temporary fees, the applicable fee would be multiplied by the endowment cost factor to calculate the endowment cost component.

Table 8.1: Endowment Cost Factor

	All Reserve Lands	Restored Wetland Only	Total Endowment Costs & Revenue
Annual Average Costs Beyond Permit Term (roundedd)	$2,870,000	$60,000	$2,930,000
Allocation	*98.0%*	*2.0%*	*100.0%*
Annual Endowment Funding Requirement During Permit Term (2010$)	$720,000	$10,000	$730,000
Permit Term (years)	50	50	50
Total Endowment Funding Requirement During Permit Term *(a)*	$36,000,000	$500,000	$36,500,000
Projected Development Fee Revenue			
Land Cover	$165,340,000	$-	
Serpentine	29,270,000	-	
Nitrogen Deposition	10,120,000	-	
Burrowing Owl	8,830,000	-	
Wetland Mitigation	77,600,000	77,600,000	
Temporary Land Cover	2,060,000	-	
Temporary Wetland	13,950,000	13,950,000	
Total *(b)*	$307,170,000	$91,550,000	
Endowment Cost Factor *(c = a / b)*	**0.117**	0.005	
Cost Factor for All Reserve Lands Excluding Restored Wetland		0.117	
Endowment Cost Factor For Restored Wetland		**0.122**	

Sources: SCVVHP, Table 9-4; Tables 2.9, 3.3, 4.6, 5.1, 6.2, 7.1, 7.2, and A.1; SCVHP Table 9-4.

Table 8.2: Endowment Fee Component

	Base Fee Amount	Endowment Cost Factor	Fee Component
Land Cover Fee (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 Mitigation Fee (per acre except 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 Fees (per acre except streams)			
Land Cover and Serpentine	Varies[1]	0.117	Varies[1]
Wetland	Varies[1]	0.122	Varies[1]

[1] Temporary impacts fees are calculated based on the applicable the land cover, serpentine, and wetland mitigation fees adjusted for the duration of the impact.

Sources: Tables 2.8, 3.2, 4.6, 5.1, 6.2, and 8.1.

9. Plan Preparation Cost Recovery Component

The Plan preparation cost recovery component will be included in all of the Plan's development fees to partially reimburse the Local Partners for the costs incurred to develop the Plan. The plan preparation cost recovery component (also called the plan preparation cost component) does not include costs funded by sources other than the Local Partners. The only other funding source for the Plan has been four Section 6 Planning Grants totaling $1,107,648.

The Plan will provide conservation actions to mitigate covered activities. In addition to the actions required to mitigate covered activities, the Plan will provide additional conservation actions to contribute to the recovery of covered species and natural communities. Only plan preparation costs related to mitigation of the impact of covered activities were included in the plan preparation fee. The plan preparation cost component assumes 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 percent of the actual preparation cost of the current Plan that includes enhancement activities pursuant to the NCCPA.

The plan preparation cost component will be allocated in proportion to the fees charged to fund plan implementation during the permit term because the fees paid by a project represent the cost to mitigate the project's impacts. In this manner, the cost of funding plan preparation is allocated in proportion to the impacts caused by each project.

Table 9.1 shows the calculation of the plan preparation cost factor used to calculate the plan preparation cost component. To reimburse the Local Partners for the share of plan preparation costs associated with mitigation, 1.4 percent needs to be added to all other development fees (excluding the endowment cost component).

Table 9.2 applies the plan preparation cost factor to each of the other fee amounts to calculate the plan preparation cost component. For the temporary fees, the applicable fee would be multiplied by the plan preparation cost factor to calculate the plan preparation fee owed.

Table 9.1: Plan Preparation Cost Factor

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 (rounded)		$4,190,000
Projected Development Fee Revenue		
Land Cover	$165,340,000	
Serpentine	29,270,000	
Nitrogen Deposition	10,120,000	
Burrowing Owl	8,830,000	
Wetland Mitigation	77,600,000	
Temporary Land Cover	2,060,000	
Temporary Wetland	13,950,000	
Total		$307,170,000
Plan Preparation Cost Factor		0.014
Base Development Fee Revenue - Private Development Only		$215,260,000
Plan Preparation Fee Revenue		3,010,000

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

Sources: Tables 2.9, 3.3, 4.6, 5.1, 6.2, 7.1, and 7.2; Santa Clara County; ICF International.

Table 9.2: Plan Preparation Fee Component

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
Burrowing Owl Fees (per acre)	$44,596	0.014	$624
Wetland Mitigation Fee (per acre except streams)			
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
Temporary Fees (per acre except streams)			
Land Cover and Serpentine	Varies[1]	0.014	Varies[1]
Wetland Mitigation	Varies[1]	0.014	Varies[1]

[1] Temporary impacts fees are calculated based on the applicable the land cover, serpentine, and wetland mitigation fees adjusted for the duration of the impact.

Sources: Tables 2.8, 3.2, 4.6, 5.1, 6.2, and 9.1.

10. Revenue and Cost Summary

Table 10.1 summarizes the total estimated revenue and costs for the Plan. Development fee revenue is estimated to fund approximately 55 percent of total plan costs. This share is roughly proportional to impacts from development as shown, for example, in Table 2.3 in Chatper 2.

Most of the revenue sources listed in the Table 10.1 are drawn form prior chapters of this report and are listed at the bottom of the table. Estimates for land cover revenues from public agencies are listed separately from private development revenues and are based on estimates of covered activitiies by those agencies. Chapter 9 of the Plan provides explanations for funding from special participating entity fees, other local sources, and state and federal sources.

The primary cost shown in Table 10.1 is the plan implementation budget that is summarized in Table 2.1 of this report and explained in more detail in Chapter 9 of the Plan. Plan preparation costs are drawn from Table 9.1 of this report. The endowment balance at end of the permit term: is drawn from Table A.1 in Appendix A of this report.

Table 10.1: Revenue & Cost Summary

	Revenue Estimate	Revenue Share
Development Fees		
Land Cover and Nitrogen Deposition Fees		
Private Development (all jurisdictions)	$163,440,000	24.8%
Santa Clara County[1]	-	0.0%
City of San Jose	2,000,000	0.3%
City of Gilroy	80,000	0.0%
City of Morgan Hill	290,000	0.0%
Santa Clara Valley Water District	8,090,000	1.2%
Santa Clara Valley Transportation Agency	1,560,000	0.2%
Serpentine Fee[1]	29,270,000	4.5%
Wetland Mitigation Fee (private development and public agencies)	77,600,000	11.8%
Burrowing Owl Fee	8,830,000	1.3%
Temporary Impact Fees (all public agencies)	16,010,000	2.4%
Endowment Cost Component	36,500,000	5.5%
Plan Preparation Cost Component	3,010,000	0.5%
Participating Special Entity Fees	17,000,000	2.6%
Total Fee Funding	$363,680,000	55.3%
Non-Fee Funding		
Other Local Funding		
Santa Clara County Parks Land Acquisition and Recreation[1,3]	$45,980,000	7.0%
Land Acquisition by Local Land Agencies, Non-Profits, Foundations[2,3]	77,270,000	11.7%
Interest Income on Permit Period Funding	2,180,000	0.3%
Endowment Investment Income	53,640,000	8.2%
Total Other Local Funds	$179,070,000	27.2%
State and Federal Funding		
New Wildlife Agency Funds (Section 6, etc.)	$115,000,000	17.5%
Total Non-Fee Funding	$294,070,000	44.7%
Total Funding & Plan Costs		
Total Funding	$657,750,000	100.0%
Plan Implementation Budget (excl. Plan Prepararion and Endowment)	$564,040,000	
Plan Preparation Costs	3,010,000	
Endowment Balance at End of Permit Term	90,140,000	
Total Cost of Plan and Endowment	$657,190,000	
Surplus / (Deficit)	**$560,000**	

[1] Development fees except for permanent and temproary wetland mitigation fees for Santa Clara County 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 (estiamted at 5,950 acres).

[2] Cost of land to be provided by 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.

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

Sources: Tables 2.10, 3.3, 4.6, 5.1, 6.2, 7.1, 7.2, 8.1, and 9.1; Santa Clara County; ICF International.

Appendix A: Endowment Fund Model

The output of the endowment fund model referred to in Chapter 8 is shown on the following pages. The model demonstrates how much constant annual revenue is needed to fully fund the endowment at the end of the permit term based on:

- Annual post-permit term costs;
- Constant annual revenue flow during the permit term;
- Rate of return on the endowment fund balance; and
- The length of the permit term.

Chapter 8 provides details on the source of the rate of return assumption and model calculations.

Table A.1: Endowment Fund Cash Flow (2010 Dollars)

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Opening Fund Balance	$-	$741,863	$1,507,836	$2,298,703	$3,115,274	$3,958,382	$4,828,892	$5,727,694	$6,655,706	$7,613,879
Fee Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Interest Earnings[1]	11,863	35,973	60,867	86,570	113,109	140,510	168,802	198,013	228,173	259,314
Total Revenues	$741,863	$765,973	$790,867	$816,570	$843,109	$870,510	$898,802	$928,013	$958,173	$989,314
Post-Permit Costs	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Net Cash Flow	$741,863	$765,973	$790,867	$816,570	$843,109	$870,510	$898,802	$928,013	$958,173	$989,314
Closing Fund Balance	$741,863	$1,507,836	$2,298,703	$3,115,274	$3,958,382	$4,828,892	$5,727,694	$6,655,706	$7,613,879	$8,603,193

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	11	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*
Opening Fund Balance	$8,603,193	$9,624,659	$10,679,323	$11,768,264	$12,892,595	$14,053,467	$15,252,067	$16,489,621	$17,767,397	$19,086,700
Fee Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Interest Earnings[1]	291,466	324,664	358,941	394,331	430,872	468,600	507,555	547,775	589,303	632,180
Total Revenues	$1,021,466	$1,054,664	$1,088,941	$1,124,331	$1,160,872	$1,198,600	$1,237,555	$1,277,775	$1,319,303	$1,362,180
Post-Permit Costs	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Net Cash Flow	$1,021,466	$1,054,664	$1,088,941	$1,124,331	$1,160,872	$1,198,600	$1,237,555	$1,277,775	$1,319,303	$1,362,180
Closing Fund Balance	$9,624,659	$10,679,323	$11,768,264	$12,892,595	$14,053,467	$15,252,067	$16,489,621	$17,767,397	$19,086,700	$20,448,880

Table A.1: Endowment Fund Cash Flow (2010 Dollars) ***(continued)***

Year	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
	21	*22*	*23*	*24*	*25*	*26*	*27*	*28*	*29*	*30*
Opening Fund Balance	$20,448,880	$21,855,331	$23,307,492	$24,806,848	$26,354,933	$27,953,330	$29,603,676	$31,307,658	$33,067,020	$34,883,560
Fee Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Interest Earnings[1]	676,451	722,161	769,356	818,085	868,398	920,346	973,982	1,029,361	1,086,541	1,145,578
Total Revenues	$1,406,451	$1,452,161	$1,499,356	$1,548,085	$1,598,398	$1,650,346	$1,703,982	$1,759,361	$1,816,541	$1,875,578
Post-Permit Costs	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Net Cash Flow	$1,406,451	$1,452,161	$1,499,356	$1,548,085	$1,598,398	$1,650,346	$1,703,982	$1,759,361	$1,816,541	$1,875,578
Closing Fund Balance	$21,855,331	$23,307,492	$24,806,848	$26,354,933	$27,953,330	$29,603,676	$31,307,658	$33,067,020	$34,883,560	$36,759,138

Year	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
	31	*32*	*33*	*34*	*35*	*36*	*37*	*38*	*39*	*40*
Opening Fund Balance	$36,759,138	$38,695,673	$40,695,145	$42,759,599	$44,891,149	$47,091,974	$49,364,325	$51,710,528	$54,132,983	$56,634,168
Fee Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Interest Earnings[1]	1,206,534	1,269,472	1,334,455	1,401,549	1,470,825	1,542,352	1,616,203	1,692,455	1,771,184	1,852,473
Total Revenues	$1,936,534	$1,999,472	$2,064,455	$2,131,549	$2,200,825	$2,272,352	$2,346,203	$2,422,455	$2,501,184	$2,582,473
Post-Permit Costs	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Net Cash Flow	$1,936,534	$1,999,472	$2,064,455	$2,131,549	$2,200,825	$2,272,352	$2,346,203	$2,422,455	$2,501,184	$2,582,473
Closing Fund Balance	$38,695,673	$40,695,145	$42,759,599	$44,891,149	$47,091,974	$49,364,325	$51,710,528	$54,132,983	$56,634,168	$59,216,641

Table A.1: Endowment Fund Cash Flow (2010 Dollars) *(continued)*

Year	2052 *41*	2053 *42*	2054 *43*	2055 *44*	2056 *45*	2057 *46*	2058 *47*	2059 *48*	2060 *49*	2061 *50*
Opening Fund Balance	$59,216,641	$61,883,044	$64,636,105	$67,478,641	70,413,560	$73,443,863	$76,572,651	$79,803,124	$83,138,588	$86,582,455
Fee Revenue	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000	$730,000
Interest Earnings[1]	1,936,403	2,023,061	2,112,536	2,204,918	2,300,303	2,398,788	2,500,474	2,605,464	2,713,867	2,825,792
Total Revenues	$2,666,403	$2,753,061	$2,842,536	$2,934,918	$3,030,303	$3,128,788	$3,230,474	$3,335,464	$3,443,867	$3,555,792
Post-Permit Costs	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-
Net Cash Flow	$2,666,403	$2,753,061	$2,842,536	$2,934,918	$3,030,303	$3,128,788	$3,230,474	$3,335,464	$3,443,867	$3,555,792
Closing Fund Balance	$61,883,044	$64,636,105	$67,478,641	$70,413,560	$73,443,863	$76,572,651	$79,803,124	$83,138,588	$86,582,455	$90,138,247

Year	Ongoing *51+*	Permit Period Total *2012-2061*
Opening Fund Balance	$90,138,247	**$-**
Fee Revenue	$-	**$36,500,000**
Interest Earnings[1]	2,929,493	**53,638,247**
Total Revenues	$2,929,493	**$90,138,247**
Post-Permit Costs	$2,930,000	**$-**
Net Cash Flow	$(507)	**$90,138,247**
Closing Fund Balance	$90,137,740	**$90,138,247**

[1] Interest earnings estimated based (Opending Fund Balance + (Annual Fee Revenue / 2)) x (Annual Interest Rate). Annual interest rate = 3.25%
Annual interest rate is real rate of return net of inflation and administrative fees based on estimates by National Fish and Wildlife Foundation for similar endowments.
Sources: National Fish and Wildlife Foundation; SCVHP Table 9-4.