

CHAPTER 9: ECONOMIC ANALYSIS AND FUNDING PROGRAM

The proposed South Sacramento Habitat Conservation Plan (SSHCP) is designed to mitigate for adverse biological and ecological effects attributed to future development in the south Sacramento County area by preserving and protecting a wide range of habitats and species, while concurrently streamlining the development permitting process. In addition, the SSHCP would contribute to regional conservation goals that extend beyond mitigation requirements. In order to realize these benefits, the federal Endangered Species Act (ESA) requires that a HCP provide assurances that it is adequately funded in order for an Incidental Take Permit to be issued;¹ similar funding assurances are also mandated by the California Endangered Species Act (CESA).² Based on these requirements, and because the goals and objectives of the SSHCP cannot be attained without adequate funding, the proposed funding program plays a vital role in successful development, implementation, and viability of the SSHCP.

This chapter presents the findings of the economic and funding analysis. The key objectives of this analysis are to estimate the range of costs associated with the implementation of the SSHCP and to establish the financial framework that would be used to offset these costs. Section 9.1 describes the conceptual approach to the analysis, including an overview of the methodology used and data sources. Section 9.2 presents planning-level cost estimates for the various actions and activities associated with implementation of the SSHCP. Section 9.3 presents SSHCP funding requirements and outlines the parameters for the HCP funding program that is tied primarily to mitigation fees and land dedication, in conjunction with potential alternative funding sources; it also presents an adaptive fee mechanism to account for fluctuating HCP implementation costs over time and addresses the framework for managing the financial resources associated with the SSHCP. Detailed tables covering the cost and funding estimates and analytical assumptions are presented in Attachment 1.

9.1 METHODOLOGY AND DATA

The economic and funding analysis prepared for the Preliminary Draft HCP is based on the best information available at the time the analysis was completed, including specific parameters that outline the anticipated implementation of the HCP. These parameters include the estimated level of future development and related habitat preservation and restoration requirements; physical characteristics of the proposed habitat preserve system; anticipated habitat management and monitoring activities; and the proposed implementation structure for the HCP. Details on these parameters are presented throughout other chapters of the HCP and are implicit to the economic and funding analysis. The methodology and data explicit to the economic and funding analysis are presented below.

¹ Section 10 (a)(2)(B)(iii), Federal Endangered Species Act

² Section 783.2 (a)(10), Title 14, California Code of Regulations (14 CCR §783.2)

A comprehensive spreadsheet model was developed to track costs and funding requirements associated with HCP implementation (see Attachment 1). The model uses a set of linked MS Excel spreadsheets, which translate HCP conservation requirements and analytical assumptions into a set of cost estimates, organized by the cost categories presented in Section 9.2. Based on anticipated HCP costs, the model estimates funding requirements and associated development fees that would generate sufficient revenues to offset mitigation-based implementation costs. It also tracks funding requirements associated with non-mitigation based costs.

The spreadsheet model utilizes a array of data sources to estimate HCP costs. Data on projected development and conservation requirements serve as the foundation for the economic analysis and are taken directly from the HCP specifications, including the number of acres subject to development (“take”) and preservation, organized by habitat type and conservation zone. The quantity of land preservation (in acres) is used in conjunction with average unit costs to estimate total plan costs. In turn, mitigation costs are allocated across the number of acres of projected development to calculate mitigation fees.

Land acquisition costs represent the largest component of implementation costs. Information on regional land values was developed using a model founded on a comprehensive database of land values in the HCP area, statistical techniques, and coordination with local conservation organizations and qualified real estate professionals. The database was constructed using sales transaction data in Sacramento County between 2000 and 2006, which were obtained through a commercially-available property data clearinghouse.³ The sales data were subjected to a rigorous screening process to ensure that all observations (i.e., sales transactions) were valid and generally representative of the types of properties that would be acquired under the HCP. Using these data, linear regression techniques were used to create a predictive model of land values, which was used to generate average per-acre land values across the 12 conservation zones establish as part of the SSHCP. This information was reviewed by an agricultural land appraiser with substantial experience in the south Sacramento County area.⁴ Due to the extended period covering the HCP planning process, estimated land values required updating due to dynamic conditions in the regional real estate market since the time data were collected. Accordingly, land values were updated from 2006 to 2008 conditions using a land value index based on trends in the residential real estate market in the HCP area.⁵

Cost estimates were also developed for a range of other conservation activities. These estimates were based on a comprehensive review of other regional HCP cost models, literature reviews, independent research, and professional judgment by biological and restoration staff with experience in this field. HCP implementation costs were generally based on average unit costs. The cost of individual HCP components would vary above and below these averages based on the site-specific characteristics, such as site conditions and project size, which are not defined at this

³ Property sales data were obtained from CD-Data via its *ParcelQuest* product.

⁴ Gregory A. House (House Agricultural Consultants), Accredited Farm Manager, Accredited Rural Appraiser, and Certified Professional Agronomist

⁵ A custom land value index was developed using residential sales transactions in the HCP plan area published by DataQuick. The index is based on changes in the median sales price of residential homes in the zip codes that comprise the plan area.

time. Further, based on the geographic and temporal scale of the HCP, as well as the complexity of proposed conservation actions, many assumptions were required to develop the cost estimates presented here. Therefore, the values presented in this analysis are considered planning-level cost estimates that are used to approximate future HCP funding requirements.

9.2 HCP IMPLEMENTATION COSTS

Implementation of the proposed SSHCP would entail a range of conservation-related activities and programs that require funding. Costs associated with implementing the SSHCP are organized into the following categories, which are summarized below:⁶

- Land preservation;
- Habitat assessment, planning, and restoration;
- Habitat management and maintenance
- Monitoring and adaptive management;
- Environmental compliance;
- Remedial actions (changed circumstances);
- Agricultural enhancement; and
- Plan administration.

9.2.1 Land Preservation

Future development in the Plan area will require habitat preservation to mitigate for impacts based on established mitigation ratios. Additional habitat preservation would be sought to meet the conservation objectives of the HCP. In order to meet these habitat preservation targets, undeveloped land that meets the biological criteria outlined in the HCP would be acquired to develop the HCP preserve system. In addition to the raw value of land, costs associated with land acquisition and preservation include a range of transaction-related expenses (due diligence), biological screening, and initial site improvements.

The primary component of land preservation costs is that for acquiring the land, which is based on representative land values for the types of properties that would be acquired under the HCP. Identifying the types of properties that would be the focus of acquisition efforts is related directly to the conservation goals outlined in the HCP, including general location of land preservation (across conservation zone), property size, and acquisition technique.

The HCP outlines habitat preservation requirements by conservation zone. A defined amount of habitat preservation is required within the Urban Development Area (UDA), which corresponds to Conservation Zones 1-5 and 12. However, most land preservation would occur on rural lands

⁶ The cost estimates presented in this section exclude contingency costs, which are discussed separately in Section 9.2.9.

outside the UDA in Conservation Zones 6-11. Overall, habitat preservation targets inside and outside the UDA are 6,712 acres and 47,871 acres, respectively. Included in these preservation targets are lands that would be avoided as part of development projects and dedicated to the HCP preserve system, thereby avoiding potential land acquisition costs; a total of 4,699 acres of land within the UDA has been identified as habitat avoidance areas.

In terms of property size, the focus of HCP acquisition efforts would be on larger parcels, defined in the HCP as 20 acres or greater, in order to meet conservation goals. To retain some flexibility in meeting the biological goals of the HCP, the plan allows for acquisition of smaller parcels on a case-by-case basis, primarily outside the UDA. For this analysis, it is assumed that 99.5 percent of land acquired outside the UDA and 95 percent of land acquisition inside the UDA would occur on parcels in excess of 20 acres.

Land acquisition would be accomplished either through fee-title purchase, conservation easement,⁷ or land delivery. The approach to land acquisition would vary relative to location inside versus outside the UDA. Inside the UDA, it is anticipated that all habitat would be acquired in fee title, which reflects an anticipated lack of willing-sellers of easements in rapidly-urbanizing parts of Sacramento County, as well as the need for more intensive habitat management on preserve lands within the UDA.

Outside the UDA, it is expected that conservation easements would be the primary method to acquire habitat as the economic viability of existing land uses, such as agriculture and grazing, continues in these areas and the conservation and biological value of land can be maintained with easement restrictions. The role of conservation easements in the SSHCP would be driven by acquisition costs, availability of willing-sellers, and required management activities. Overall, it is assumed that conservation easements would account for 90 percent of land acquisitions outside the UDA.

9.2.1.1 Land Values and Costs

Generally, land values in the HCP area have increased substantially over the last decade, although they have stabilized in recent years because of downturn in the local real estate market. Rapid appreciation in the value of targeted conservation lands can pose a problem for habitat preservation due to escalating funding requirements and the lag time between habitat take and the purchase of land. Depreciating land values, on the other hand, can lead to a funding program with revenues that exceed costs. Accordingly, developing accurate estimates of land values over time is critical to the SSHCP funding program.⁸

⁷ A conservation easement refers to a legally enforceable land preservation agreement that transfers certain use rights on a property from a landowner to a qualified land protection organization, typically restricting future urban development on the property. These restrictions remain with the property in perpetuity. The landowner who relinquishes these development rights continues to privately own and manage the land subject to easement restrictions.

⁸ Changes in land values during the permit period will be address in the mitigation fee adjustment program (see Section 9.3.1.10)

Fee-Title Land Values

The starting point in estimating land acquisition costs for this analysis was to develop estimates of fee-title land values in the Plan area. As shown in Table 9-1, representative per-acre land values vary by location (i.e., conservation zone) and parcel size. For larger rural parcels, land values outside the UDA range from approximately \$6,600 per acre (Zone 7) to \$12,400 per acre (Zone 9). Inside the UDA, land values increase substantially to between \$22,300 and \$68,600 per acre for parcels greater than 20 acres. On average, per-acre land values are substantially higher for smaller urban properties. Outside the UDA, per-acre values for properties less than 20 acres range from \$25,600 to \$48,100, while the range inside the UDA is \$87,000 to \$267,500.

Table 9-1: Average Fee-Title Land Values in the HCP Plan Area (per acre)

| Conservation Zone | Parcel Size | |
|-------------------|-------------|-----------|
| | 0-20 acres | 20+ acres |
| Zone 1 | \$110,200 | \$28,300 |
| Zone 2 | \$182,400 | \$46,800 |
| Zone 3 | \$87,000 | \$22,300 |
| Zone 4 | \$139,200 | \$35,700 |
| Zone 5 | \$267,500 | \$68,600 |
| Zone 6 | \$42,800 | \$11,000 |
| Zone 7 | \$25,600 | \$6,600 |
| Zone 8 | \$42,700 | \$11,000 |
| Zone 9 | \$48,100 | \$12,400 |
| Zone 10 | \$28,900 | \$7,400 |
| Zone 11 | \$43,900 | \$11,300 |
| Zone 12 | \$92,800 | \$23,800 |

These results support some basic and intuitive generalizations regarding land values. First, the development potential of properties has a significant effect on land values. Development potential in the HCP plan area is driven by existing and future infrastructure and land use policy, which are captured by locations of properties relative to the UDA. The UDA shows the potential extent of future development based on the anticipated expansion of infrastructure plus additional areas designated for development by local jurisdictions, which may extend beyond the USB established by the County. Second, smaller parcels tend to have higher average per-acre values compared to larger parcels. Smaller parcels are typically in closer proximity to development pressure, which has an influence toward higher land values. Further, larger parcels are generally characterized by a different type of real estate market, one where the focus is on agricultural and rural residential

uses, which have lower per-acre values compared to urban real estate markets. Finally, there is a smaller pool of buyers, and therefore demand, for large parcels of land; as a result, prices tend to be lower.

Conservation Easement Values

Generally, conservation easements may offer some degree of cost savings in that they generally cost less than fee title acquisition. Relatively lower values for easements are attributed to the fact that landowners retain some level of property rights. Thus, the value (or cost) of the conservation easement would typically represent the value of the rights foregone by the seller of the easement, which is typically tied to future development opportunities.

Due to the large role in acquiring preserve lands under the SSHCP, estimates of conservation easement values play a critical role in the land value analysis. Research into representative values of conservation easements indicates a wide range of values consistent with the unique characteristics of such agreements. In cases where development potential is high, the cost savings of acquiring land via conservation easements relative to fee-title acquisitions is low. On the other hand, in areas where development potential is low and the property owners retain some economically viable uses of the land, such as agriculture, the cost savings attributed to the use of conservation easements may be high.

The structure of a conservation easement has a direct bearing on its value. Key parameters that define the structure of an easement include provisions for residential dwelling units, allowable land uses, subdivision of land, transference of water and mineral rights, and transportation improvements (e.g., roads and bridges). For this analysis, easement values were developed based on assumptions related to the structure of proposed easements that would be used by the Implementing Entity in acquiring preserve lands, with inputs from appraisers experienced in easement valuation, representative easement valuation. Generally, conservation easement values are expected to vary across habitat types, as shown in Table 9-2. The percentage ranges in the table represent the cost of acquiring land via easement as a proportion of fee-title values, and are organized by habitat tiers used in developing mitigation fees. For this analysis, the approximate mid-point value in the range for each habitat type was used, which varies between 75 percent and 85 percent of fee-title values.⁹

Table 9-2: Conservation Easement Values in the HCP Plan Area

| Habitat Type | Conservation Easement Value (% of Fee-Title Value) |
|--------------|--|
| Agriculture | 80% (range: 70%-90%) |

⁹ It should be noted that as the SSHCP is implemented, all acquisitions will be negotiated and tailored to the characteristics of each property. All easement transactions would be based on a formal appraisal of each property under consideration. The assumptions about easement values used in the cost analysis represent planning-level estimates, and the range in values used here do not represent a minimum or maximum of the actual costs that might be paid.

| | |
|------------------|--------------------------------------|
| Oak Woodland | 85% (range: 80%-90%) |
| Riparian | 85% (range: 80%-90%) |
| Valley Grassland | 75% (range: 60%-85%) |
| Vernal Pool | 75% (range: 60%-85%) |
| Wetland | 75% (average of other habitat types) |

Summary of Land Values and Costs

The value (cost) of land comprising the SSHCP preserve system was calculated using representative values together with habitat preservation targets by conservation zone. The total cost of land acquired under the SSHCP is estimated to be approximately \$423.2 million over the 50-year permit term. Assuming proportional development and land preservation over this period, this equates to \$8.5 million in land costs annually. The majority of land costs are for properties outside the UDA. Specifically, land costs outside and inside the UDA are \$364.0 million and \$59.3 million, respectively, illustrating the large amount of habitat avoidance (and corresponding land dedication) expected within the UDA.

9.2.1.2 Transaction Costs (Due Diligence)

A number of transaction costs are associated with the land acquisition process, whether it be fee title or conservation easement. Typically, these costs are part of the due diligence process and may include legal fees, title searches and insurance, and appraisals. Depending on the property being acquired, other types of transaction costs can include, but are not limited to, legal boundary surveys, Phase 1 Environmental Assessments, and coordination with regulatory agencies. Because most of these activities are part of the due diligence process, it is likely that some proportion of these transaction costs would be incurred on properties that are not ultimately acquired.

Estimating transaction costs is difficult because these costs would vary substantially based on the characteristics of the property being acquired and the complexity of the transaction. This analysis utilizes a “transaction-based” approach, for which costs are based on representative per-transaction expenses and the number of transactions needed to meet land preservation targets. Representative transaction costs were developed from discussion with conservation managers and from other regional HCPs. Estimates of the number of transactions were based habitat preservation targets and average parcel sizes.

Due diligence costs for standard transactions are estimated to be approximately \$24,300 for fee-title acquisitions. Due diligence costs for acquisitions using conservation easement are expected to 25 percent higher than standard transactions (\$30,300 per transaction) reflecting the added complexity and higher legal and appraisal costs associated with these types of transactions. In addition, a cost escalation factor of 1.25 (or 25 percent) was applied to both estimates to account for properties that are considered for acquisition and subjected to due diligence, but that are not ultimately acquired. Accounting for the escalation factor, due diligence costs for fee-title and easement acquisitions are estimated to be \$30,300 and \$37,900 per property acquired, respectively.

Total costs for due diligence activities are estimated to be \$16.8 million, accounting for 4.0 percent of total land acquisition costs.

9.2.1.3 Preserve Documentation Record

A Preserve Documentation Report (PDR) would be prepared for all properties acquired under the HCP and would identify existing physical and biological conditions on properties being considered for acquisition. Specifically, the PDR would include information on the property location; physical condition of facilities (e.g., fences); and biological setting, including documentation of special-status species and invasive weeds identified on the property. It is assumed that the habitat assessment conducted as part of the PDR would require limited biological surveys,¹⁰ and the completed PDR would come in the form of a brief report and accompanying maps. Representative costs for completion of the PDR are based on the estimated number of hours for biological staff to complete required tasks and average labor costs. Similar to other due diligence costs, a cost escalation factor was applied to estimate PDR costs as it would apply to all all properties being screened for acquisition. On average, the estimated cost to complete the PDR is \$34 per acre of habitat preservation. In total, the estimated cost of preparing PDRs is approximately \$1.9 million over the permit term.

9.2.1.4 Initial Site Improvements

Most preserve lands acquired under the SSHCP would undergo varying levels of site improvements upon acquisition, such as removal of degraded facilities, repair and replacement of gates, signage, and new fencing. The extent of these improvements is dependent on condition of the property at the time it is acquired and whether the property is acquired in fee or easement. It is estimated that initial site improvement costs would be \$278 per acre acquired in fee. It is assumed that conservation easements would not undergo the same level of site improvements as properties acquired in fee and are allocated 75 percent of site improvement costs. The total cost of implementing initial site improvements on preserve properties is \$12.2 million.

9.2.2 Habitat Assessment, Planning, and Restoration Costs

Once properties are acquired, the Implementing Entity would be responsible for a range of initial activities in order to integrate properties into the HCP preserve system. These activities include a comprehensive biological/ecological inventory and assessment to establish baseline conditions and development of a property-specific management plan. Some properties may also be targeted for habitat restoration.

9.2.2.1 Biological Assessment and Inventory

¹⁰ A reconnaissance-level habitat assessment would be conducted as part of the PDR when acquiring preserve lands; however, a more comprehensive biological inventory would be completed in conjunction with habitat assessments and development of management plans, which are discussed in Section 9.2.2.

The biological assessment and inventory would document existing biological conditions on the property and provide the foundation for the development of the management plan. The specifications for the biological assessment would vary based the type of habitat and may include the following: habitat and land cover map; evaluation of hydrology and geophysical resources; wetland delineations; special-status plant and animal surveys; and invasive weed surveys. Because some activities are habitat-specific, the cost to conduct the biological assessment would vary by habitat type. Costs were estimated based on the labor requirements for implementing the biological assessment, and are expected to range between about \$50 to \$100 per acre. The total cost for conducting biological assessments on preserve properties is estimated to be nearly \$2.9 million over the permit term.

9.2.2.2 Preserve-Specific Management Plans

A management plan would be prepared for all properties acquired under the HCP and would be based on the results of the habitat assessment, taking into account the overall management and habitat-level goals of the HCP. Representative components of the management plan would address agricultural production, grazing regimes, weed control, prescribed fire, and wetland management issues. Because anticipated management strategies would vary by habitat type, cost estimates to prepare management plans would also vary. The cost of preparing management plans is based on the level of effort required by conservancy or contractor staff to develop the plan, which would vary in relation to complexity of biological issues for each property. Overall, the range in costs for development of the initial management plan for properties is between \$50 and \$100 per acre, and the total cost for preparing management plans is \$2.9 million. Over time, these plans would be updated periodically to account for dynamic biological conditions and adaptive management strategies; these ongoing costs are addressed under monitoring and adaptive management (see Section 9.2.4).

9.2.2.3 Habitat Restoration and Creation

The SSHCP includes habitat restoration goals that vary by habitat type, in part to meet the no-net loss policy for jurisdictional wetlands. Restoration costs vary across habitat types and depend on restoration protocols that would be developed as part of the Plan. For this analysis, costs associated with habitat restoration were organized into three categories: (1) planning and design, (2) construction, and (3) monitoring and maintenance. Planning and design activities may include, but are not limited to, review of historical documents, site reconnaissance, soil testing, preparation of permit applications, engineering, and preparation of construction drawings and specifications. Construction activities typically include staking, earthwork, plant and seed procurement, planting/seeding, and installation of irrigation system. In the short term, restoration projects are subject to intensive monitoring and maintenance activities for first 5 to 10 years after restoration is complete; long-term management and monitoring costs on restored habitat are excluded from habitat restoration costs, but are covered in Section 9.2.4.

Table 9-3 presents a summary of representative restoration costs across the various habitats subject to restoration under the SSHCP. These cost estimates have been developed based on a review of regional HCPs, other studies and reports, and coordination with restoration experts. Habitat

restoration costs are estimated to range between \$42,100 per acre for oak woodland habitats to \$64,900 per acre for mixed riparian woodland. Restoration costs for wetland habitats range from approximately \$50,000-\$62,000 per acre.

Table 9-3: Habitat Restoration and Creation Costs (per acre)

| Habitat Type | Habitat Restoration Costs | | | | Habitat Creation |
|------------------------------|---------------------------|--------------|----------|----------|------------------|
| | Planning | Construction | O&M | Total | |
| Blue Oak Woodland | \$5,700 | \$16,900 | \$19,500 | \$42,100 | \$42,100 |
| Freshwater Marsh | \$7,500 | \$34,900 | \$14,000 | \$56,400 | \$62,000 |
| Mixed Riparian Scrub | \$4,800 | \$22,900 | \$22,200 | \$49,900 | \$49,900 |
| Mixed Riparian Woodland | \$6,400 | \$27,100 | \$31,400 | \$64,900 | \$64,900 |
| Open Water | \$7,700 | \$32,200 | \$13,300 | \$53,100 | \$58,500 |
| Savannah | \$5,700 | \$16,900 | \$19,500 | \$42,100 | \$42,100 |
| Seasonal Impoundment | \$11,600 | \$27,900 | \$13,700 | \$53,100 | \$58,500 |
| Seasonal Wetland | \$7,900 | \$36,800 | \$14,600 | \$59,300 | \$65,200 |
| Swale | \$11,600 | \$27,900 | \$13,700 | \$53,100 | \$58,500 |
| Valley Oak Riparian Woodland | \$5,300 | \$23,100 | \$29,800 | \$58,200 | \$58,200 |
| Vernal Pool | \$11,600 | \$27,900 | \$13,700 | \$53,100 | \$58,500 |

Due to the lack of suitable land for restoration, some habitats would need to be created rather than restored. In fact, habitat creation is expected to be the primary tool in meeting restoration requirements, and is assumed to account for 75 percent of habitat restoration/creation activity. The unit costs associated with habitat creation are comparable to restoration for upland habitats, but are assumed to be approximately 10 percent higher for wetland habitats. In addition, habitat restoration and creation is expected to occur primarily on lands acquired in fee that have been purchased to meet the conservation goals of the HCP, thereby bypassing the need to acquire additional land to implement restoration projects. Total habitat restoration and creation costs anticipated under the HCP are \$161.7 million.

9.2.2.4 Species Enhancement Measures

As part of the proposed conservation strategy, the HCP calls for certain conservation measures aimed at benefiting target species. Such measures include installing bat roost structures (bats); planting hedgerows and trees (Swainsons hawk); planting shrubs and installing hunting perches (Loggerhead shrike); establishing nesting areas and burrows (Burrowing owl); establishing

blackberry nesting sites (Tricolored blackbird); and valley elderberry restoration (Valley elderberry longhorn beetle). Cost estimates were developed for each measure and allocated to the appropriate habitat type based on the relationship between species and habitats. The costs associated with implementation of species enhancement measures are estimated to total about \$1.0 million over the permit term.

9.2.3 Habitat Management and Maintenance

All preserve lands acquired in fee would be subject to active management and maintenance activities. Management of preserve lands under conservation easements would be in accordance with the provisions of the easement and the responsibility of individual landowners. However, a small proportion (approximately 5 percent) of preserve lands under conservation easements would allow for active management; these are referred to as “intensive easements.”

Costs associated with preserve management and maintenance activities include capital expenditures on equipment, materials and infrastructure improvements; construction of field facilities; and installation of water wells and pumping equipment. They also include ongoing costs associated with invasive species control and maintenance of facilities. Conversely, certain management activities, specifically cattle grazing, can provide revenues that help offset management costs. Not all management activities would occur on every type of habitat; as a result, management activities were cross-referenced to the applicable habitats in order to develop cost estimates.

Total management costs over the 50-year permit term are an estimated \$13.1 million. On an annual basis, they range from about \$164,900 in year 1 to \$359,700 in year 50, increasing incrementally by an average of \$4,000 per year as land is added to the preserve system. During the post-permit term, management costs are expected to decline to about \$198,700 annually covering only long-term O&M expenditures.

9.2.4 Monitoring and Adaptive Management

Unlike active management of preserve lands owned in fee, habitat monitoring and adaptive management activities apply to all preserve lands. The SSHCP monitoring program would include compliance-level monitoring to ensure that the HCP is meeting the terms and requirements of its permit. The monitoring program would also include effectiveness monitoring that focuses on the status and condition of target habitats and species and which would require annual surveys. In the context of adaptive management, the SSHCP calls for the creation of an advisory board, in the form of an Independent Conservation Assessment Team, to review the status of HCP implementation. It also calls for directed research to help guide adaptive management strategies. Finally, periodic updates to preserve-level management plans and the system-wide monitoring plan would be required.

Implementation of the SSHCP monitoring and adaptive management program is estimated to cost approximately \$67.0 million over the permit term. On average, annual costs are expected to increase by about \$49,300 per year from \$133,300 to over \$2.5 million per year by the end of the

permit term. Post-permit monitoring and adaptive management costs are expected to remain stable at nearly \$2.6 million annually.

9.2.5 Environmental Compliance

Implementation of certain conservation activities proposed under the SSHCP may require additional environmental compliance. For this analysis, it is assumed that only CEQA compliance would be required for these activities, and compliance with NEPA, Sections 401 and 404 of the Clean Water Act (CWA), Section 106 of the National Historic Preservation Act (NHPA), Sections 1600–1607 of the California Fish and Game Code, and other miscellaneous requirements (e.g., county grading permits, road encroachment permits, stormwater pollution prevention plans) would not be necessary. Because environmental compliance costs can vary substantially in relation to project size and complexity, assumptions were made on the number and size/complexity of projects based on the following three categories:

- Small/simple projects (up to 10 acres)
- Medium/moderately complex projects(10–50 acres)
- Large/most complex projects (more than 50 acres)

Average costs were developed for each category based on contracting the preparation and submittal of compliance documents. All environmental compliance costs are expected to be incurred during the permit term and would not be required for ongoing management and monitoring activities. Overall, it is estimated that environmental compliance costs would total \$3.5 million over the permit term, an average of \$70,000 annually.¹¹

9.2.6 Remedial Measures (Changed Circumstances)

The HCP funding program is required to account for costs associated with potential remedial actions in response to changed circumstances in the Plan area. Changed circumstances may include listing of new species, listing of covered species, designation of critical habitat, flooding, wildfire, drought, invasive species, disease, application of pesticides and herbicides, toxic/oil spills, and/or vandalism. Due to the uncertainty associated with changed circumstances, it is not possible to forecast the prevalence and extent of these events in the Plan area over time. As such, it was assumed that the cost of remedial measures would be 10 percent of the total management budget on preserve lands over the permit term. Remedial measures are not required after the permit term, and are excluded from post-permit funding requirements. The total budget available to fund remedial measures is an estimated \$1.3 million over the permit term.

9.2.7 Agricultural Enhancement Funding

¹¹ The environmental compliance costs of covered activities unrelated to conservation actions will be incurred by the project applicant and are not included in this cost estimate.

Under the SSHCP, all landowners who sell easements on lands that become part of the SSHCP preserve system would be eligible for monetary payments for the purpose of agricultural enhancement. For this analysis, it is assumed that payments under the agricultural enhancement program would be \$10 per acre per year and would extend into perpetuity. Over the 50-year permit term, agricultural enhancement funding would total an estimated \$11.0 million, and would continue at about \$431,000 annually thereafter.

9.2.8 Plan Development Costs

The development of the proposed SSHCP entailed a significant amount of time and costs that have been incurred by the six local jurisdictions/agencies that would be holders of the permit (i.e., Local Partners): Sacramento County, City of Elk Grove, City of Rancho Cordova, City of Galt, Sacramento Regional County Sanitation District, and Sacramento County Water Agency. Taking into account labor costs and direct expenditures, it is estimated that total plan development costs are approximately \$6 million, which has been accounted for as part of the total cost of implementing the SSHCP. Costs vary across individual permit holders as follows:

- Sacramento County: \$1 million
- City of Elk Grove: \$1 million
- City of Rancho Cordova: \$1 million
- City of Galt: \$1 million
- Sacramento Regional County Sanitation District: \$1 million
- Sacramento County Water Agency: \$1 million

Because plan development costs will have already been incurred by the time the Plan is implemented, the nominal costs presented above were compounded over the 50-year permit term to estimate the opportunity costs (i.e., foregone investment income) over this period. This figure, approximately \$11.7 million, is used for the purpose of estimating total plan costs.

9.2.9 HCP Administration Costs

A range of administrative activities would be required to implement the proposed SSHCP, which contribute to overall plan costs. Plan administration costs represent standard operating costs that would be incurred by the HCP Implementing Entity, including staffing, office, and other miscellaneous expenses. Plan administration costs are expected to fluctuate over time based on staffing and equipment needs. Because the Implementing Entity would continue to manage the SSHCP preserve system after the permit term expires, these costs would continue in perpetuity. Estimates of plan administration costs are based on the parameters of the HCP implementation strategy (see Chapter 12, Plan Implementation) and a review of budget information from other regional conservation organizations and HCPs.¹²

¹² Data sources include the Sacramento Valley Conservancy and Natomas Basin Conservancy.

Staffing required by the HCP Implementing Entity would include a range of administrative and technical positions, as well as a 10-member Board of Directors, as described in Chapter 12. For the purpose of cost estimation, it is assumed that the Implementing Entity would be staffed by approximately seven to nine full-time equivalents (FTEs) over the permit term. For this analysis, labor costs associated with most habitat restoration, management, and monitoring activities are excluded from staffing costs as these activities are assumed to be undertaken primarily by outside contractors under the direction of Implementing Entity. Staffing costs include salaries, as well as benefits and payroll taxes.

A range of office expenses would also be incurred by the HCP Implementing Entity. These include, but are not limited to, rent for office space, computers, other IT equipment and software, office furniture, supplies, communications, copying and printing, and postage. Office expenses attributed directly to employees, such as computers, are calculated based on staffing requirements over time. Office expenses for equipment assume the need for periodic replacement.

Lastly, there are a range of miscellaneous administrative costs associated with plan implementation. These include, but are not limited to, costs associated with insurance (liability and vehicle), accounting, legal review, travel, vehicle leasing, conferences and training, law enforcement, public outreach, and cost recovery for local jurisdictions and agencies implementing the HCP.

Total plan administration costs over the 50-year HCP permit period are estimated at \$66.0 million. Staffing, office, and other administrative costs are estimated to account for about \$32.5 million (49 percent), \$5.5 million (8 percent), and \$28.0 million (42 percent), respectively, of total administration over the permit period. Administration costs are expected to increase from approximately \$427,000 in the startup year (i.e., Year 0) to a peak of about \$1.7 million during the implementation period. At the end of the 50-year HCP permit period, the level of administrative responsibilities is expected to remain relatively constant, with an estimated average long-run operating budget of \$1.6 million per year.

9.2.10 Contingency Costs

As indicated above, the costs presented in this section are planning-level estimates. To account for uncertainties, contingencies have been added to the costs to help protect against short-term cost overruns. A general contingency of five (5) percent is included in the cost model for all categories except land acquisition, habitat restoration, and remedial measures. No contingency is assigned to land acquisition as these costs are reflective current market conditions. By nature, costs attributed to remedial measures represent contingencies for unexpected management costs, so no additional contingencies were included. For habitat restoration, a higher contingency rate of 15 percent was applied to restoration costs to reflect the potential failure of habitat restoration projects and need for restoration repairs. For this analysis, contingencies have been set at modest levels to reflect the fact that the proposed funding program has a fee adjustment program built in which would allow for adjustments to mitigation revenues to cover shifts in costs over the long term. In total, contributions to the contingency fund are expected average about \$655,000 annually and \$32.7 million over the permit term.

9.2.11 Summary of HCP Costs and Funding Requirements

A summary of HCP implementation costs is presented in Table 9-4.¹³ The cost information is organized into five-year increments over the 50-year permit term, and costs anticipated after the permit term are presented as average annual values. The cost estimates include both capital and operational costs. Capital costs represent one-time costs for land, infrastructure or major equipment, while operational costs are ongoing costs that would extend beyond the permit term.

The costs presented in Table 9-4 represent the total funding requirements for implementation of the SSHCP. Overall, it is estimated that HCP implementation costs would total an estimated \$828.8 million over the 50-year life of the HCP. The largest component of costs over the permit term is land acquisition (54.8 percent) followed by habitat assessment, planning, and restoration (23.4 percent); monitoring and adaptive management (8.5 percent); plan administration (8.4 percent); management and maintenance (1.7 percent), plan development (1.4 percent); agricultural enhancement (1.3 percent); environmental compliance (0.4 percent); and remedial measures (0.2 percent). On average, plan implementation would entail expenditures of approximately \$16.6 million annually over the 50-year period, although costs would increase incrementally as land is added to the preserve system, thereby increasing expenditures for habitat management and monitoring. During the post-permit period, the HCP preserve system would require ongoing expenditures for habitat management, monitoring, agricultural enhancement payments, and plan administration; the costs associated with these ongoing activities are estimated to be over \$5.0 million annually extending into perpetuity.

¹³ The cost estimates presented in this section and Table 9-4 cover total plan costs, which include mitigation and non-mitigation costs, as well as contingencies associated with each cost component.

Table 9-4: Summary of Plan Implementation Costs

| Fee Component | Total Cost per Period | | | | | | | | | | | | Annual Ave (Permit) | Annual Ave (Post-Permit) | |
|---|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|--------------------------|-----|
| | 0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 | Total | | | |
| Land Acquisition | \$0 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$45,403,521 | \$454,035,214 | \$9,080,704 | \$0 |
| Habitat Assessment, Planning, and Restoration | \$0 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$19,369,175 | \$193,691,747 | \$3,873,835 | \$0 |
| Habitat Management and Maintenance | \$0 | \$907,383 | \$1,011,724 | \$1,116,065 | \$1,220,407 | \$1,324,748 | \$1,429,089 | \$1,533,430 | \$1,637,772 | \$1,742,113 | \$1,846,454 | \$13,769,186 | \$275,384 | \$208,683 | |
| Monitoring and Adaptive Management | \$0 | \$1,217,010 | \$2,510,361 | \$3,803,712 | \$5,097,062 | \$6,390,413 | \$7,683,763 | \$8,977,114 | \$10,270,465 | \$11,563,815 | \$12,857,166 | \$70,370,881 | \$1,407,418 | \$2,680,151 | |
| Environmental Compliance | \$0 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$367,500 | \$3,675,000 | \$73,500 | \$0 | |
| Remedial Measures | \$0 | \$86,417 | \$96,355 | \$106,292 | \$116,229 | \$126,166 | \$136,104 | \$146,041 | \$155,978 | \$165,916 | \$175,853 | \$1,311,351 | \$26,227 | \$0 | |
| Agricultural Enhancement | \$0 | \$129,252 | \$344,671 | \$560,090 | \$775,510 | \$990,929 | \$1,206,348 | \$1,421,768 | \$1,637,187 | \$1,852,606 | \$2,068,026 | \$10,986,386 | \$219,728 | \$430,839 | |
| Plan Development | \$0 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$1,165,965 | \$11,659,648 | \$233,193 | \$0 | |
| Plan Administration | \$448,350 | \$4,731,435 | \$5,089,674 | \$5,471,539 | \$5,774,653 | \$6,164,813 | \$7,663,563 | \$7,971,822 | \$8,345,392 | \$8,709,301 | \$8,900,696 | \$69,271,238 | \$1,385,425 | \$1,711,972 | |
| TOTAL | \$448,350 | \$73,377,658 | \$75,358,946 | \$77,363,859 | \$79,290,022 | \$81,303,230 | \$84,425,028 | \$86,356,336 | \$88,352,954 | \$90,339,912 | \$92,154,355 | \$828,770,650 | \$16,575,413 | \$5,031,644 | |
| Contingency (incl. in total) | \$21,350 | \$2,870,382 | \$2,953,998 | \$3,038,739 | \$3,119,729 | \$3,204,865 | \$3,342,791 | \$3,424,027 | \$3,508,373 | \$3,592,258 | \$3,667,929 | \$32,744,441 | \$654,889 | \$219,086 | |

9.3 HCP FUNDING PROGRAM

Long-term viability of the SSHCP requires adequate funding to offset the plan implementation costs described in Section 9.2. Funding to implement the HCP is expected to come from development fees, which would be used to cover mitigation-related costs attributed to future development. Alternative sources of funding would need to be secured to fund activities aimed at meeting conservation goals, which are above those required to mitigate impacts from future urbanization. Additionally, some form of funding will be necessary to generate the funds needed to make the initial land acquisitions under the “get ahead-stay ahead” program, and where feasible, to implement programs and projects that promote the overall purposes and objectives of the SSHCP. The availability and reliability of these alternative funding sources vary, which is an important consideration for the long-term sustainability of the HCP.

This section outlines the key parameters of the HCP funding program, which include:

- Allocation of costs between mitigation and non-mitigation sources;
- Proposed mitigation fees;
- Land delivery system;
- Applicability of mitigation fees and exemptions;
- Collection of mitigation fees;
- Timing of mitigation fee payments;
- Mechanism to adjust mitigation fees over time;
- Other funding sources available to the HCP;
- Funding adequacy and assurances;
- Pace of development and mitigation fee collection;
- Post-permit funding; and
- Framework for financial management under the SSHCP.

9.3.1 Mitigation Fees

The basic premise in calculating proposed development fees is that the fees are set at levels that fully offset the mitigation-based cost of implementing of the SSHCP. Mitigation fees can be structured in a number of ways, but in all cases must comply with State law. This analysis uses a “tiered-fee” structure, where separate fees are calculated based on the type of habitat that is impacted by a particular project. This approach accounts for variations in costs associated with unique conservation requirements for different types of habitat. For the SSHCP, proposed mitigation fees are calculated on a per-acre-of-development basis; i.e., the fee represents the mitigation payment required for one acre of development. The fee is calculated by adding the per-acre revenues required to offset each of the cost components discussed in Section 9.2. Certain

components of the fee cover one-time fixed costs that would occur over the permit term, such as expenditures for land acquisition; habitat assessment, planning and restoration; environmental compliance; and remedial measures. Generally, the fee for one-time costs is calculated by dividing the respective total costs for those components by the number of developable acres in the HCP area. Other cost components would extend beyond the permit term in perpetuity, including habitat management and maintenance, monitoring and adaptive management, agricultural enhancement, and plan administration; the fees for these components are structured as contribution to a non-wasting endowment fund.

9.3.1.1 Cost Allocation and Fee Nexus

A critical component of the HCP funding program is related to the fair share allocation of total HCP costs to future development. Generally, HCP costs that are associated with mitigating the impacts attributed directly and indirectly to future development would be incurred by developers (in the form of mitigation fees and/or land dedication requirements), while the costs associated with conservation activities that exceed mitigation requirements would be incurred by the public (in the form of public funding). The implementation costs attributed to future development have been estimated as a component of total plan costs and serve as the foundation for estimating proposed mitigation fees.

As indicated in Section 9.2.11, the total cost of HCP implementation is approximately \$828.8 million. However, not all of these costs are attributed to future development in the HCP planning area; instead, some HCP costs cover the conservation of habitat that exceeds mitigation requirements. This section discusses the allocation of project costs among development and non-development sources, and includes a nexus analysis between development impacts and proposed fees.

In California, the legal relationship between development and fees is founded on the Mitigation Fee Act (Government Code §§ 66000-66025), which was enacted by Assembly Bill 1600 in 1987. Per the Act, a development impact fee is a “monetary exaction other than a tax or special assessment that is charged by a local governmental agency to an applicant in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project (Government Code § 66000(b)). Public facilities include public improvements, public services, and community amenities (Government Code § 66000(d)). Habitat conservation can be considered a public service and community amenity.

Several of the core principles of the Mitigation Fee Act are found in California Code §66001, which states that a local jurisdiction shall:

- (1) Identify the purpose of the fee.
- (2) Identify the use to which the fee is to be put.
- (3) Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.
- (4) Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.

The purpose and use of proposed HCP mitigation fees have been outlined in detail in this chapter. Mitigation fees will be used to ensure the overall funding of the SSHCP Conservation Strategy.

The requirements referenced above are also intended to demonstrate the nexus between development and fees. The nexus between future development in the planning area and habitat conservation is relatively clear. Future development will directly and indirectly convert habitat to urban uses, which results in adverse impacts to species which depend on these habitats, as well as a decline on the overall ecological value and diversity of the region. The conservation of sensitive habitats elsewhere in the planning area would help ensure the viability of species affected by development and would promote ecosystem health.

Based on this nexus, future development projects electing coverage under the HCP would be responsible for the cost of habitat conservation that is necessary to mitigate for project impacts. Accordingly, future development would only be responsible for paying for the mitigation-related costs of the HCP, which are a subset of total HCP costs presented in Section 9.2. The proportion of total HCP costs that would be borne by development is based on mitigation ratios and other requirements established by regulatory agencies, which form the basis of land preservation and restoration goals outlined in the HCP. Specifically, the SSHCP calls for a total of 564,583 acres of habitat preservation in the HCP planning area, of which 45,553 acres (83.5 percent) are attributable to mitigation requirements for future development. The additional 9,030 acres targeted for conservation are intended to further promote the biological and ecological objectives of the HCP. In addition, the extent of habitat restoration required to mitigate for impacts from future development (1,146 acres) is only a component of the total restoration goals of the HCP (2,646 acres).

Based on the nexus requirement between habitat impacts and mitigation fees, separate cost estimates were developed for the mitigation component of the HCP. A summary of these costs are presented in Table 9-5. In total, mitigation-based costs over the 50-year permit term are estimated to total \$614.3 million, or 74.1 percent of total HCP costs (\$828.8 million) over the permit period. During the post-permit period, annual ongoing costs for mitigation are estimated to average \$4.2 million per year, accounting for 83.6 percent of ongoing costs for the overall HCP, which are estimated at about \$5.0 per year.

Table 9-5: Mitigation-Based Funding Requirements (\$millions)

| Cost Category | Permit Term (Total) | | | Post-Permit (Annual Average) | | |
|--|---------------------|------------|---------|------------------------------|------------|---------|
| | Total HCP | Mitigation | Percent | Total HCP | Mitigation | Percent |
| Land Acquisition | \$454.0 | \$377.8 | 83.2% | - | - | - |
| Habitat Assessment, Planning & Restoration | \$193.7 | \$84.4 | 43.6% | - | - | - |
| Habitat Management | \$13.8 | \$12.5 | 90.9% | \$0.2 | \$0.2 | 91.6% |
| Monitoring & Adaptive Mgmt | \$70.4 | \$58.8 | 83.5% | \$2.7 | \$2.2 | 83.5% |

| | | | | | | |
|--------------------------|----------------|----------------|--------------|--------------|--------------|--------------|
| Environmental Compliance | \$3.7 | \$3.1 | 83.5% | - | - | - |
| Remedial Measures | \$1.3 | \$1.2 | 90.9% | - | - | - |
| Agricultural Enhancement | \$11.0 | \$8.9 | 81.1% | \$0.4 | \$0.3 | 81.1% |
| Plan Development | \$11.7 | \$9.7 | 83.5% | - | - | - |
| Plan Administration | \$69.3 | \$57.8 | 83.5% | \$1.7 | \$1.4 | 83.5% |
| Total | \$828.8 | \$614.3 | 74.1% | \$5.0 | \$4.2 | 83.6% |

9.3.1.2 Tiered-Fee Mitigation Structure

Mitigation funding under the SSHCP would be based on a tiered-fee structure, where development on different types of habitat would be subject to a different fee. The underlying principle for a tiered-fee structure is that land preservation and conservation requirements, and therefore costs, vary by habitat type. For those habitats that require larger amounts of land preservation (i.e., higher mitigation ratios), habitat restoration and more intensive management, per-acre costs are relatively higher. As such, it is more appropriate to charge a higher mitigation fee for those habitats rather than proportionally distributing total mitigation costs across all future development.

There is a total of 18 different types of habitat covered for take in the SSHCP planning area.¹⁴ For the purposes of developing mitigation fees, these habitats were consolidated into seven groups (or tiers): (1) Agriculture; (2) Oak Woodland; (3) Riparian-Jurisdictional; (4) Riparian-Non-Jurisdictional; (5) Valley Grassland; (6) Vernal Pool;¹⁵ and (7) Wetland. The assignment of individual habitat types across habitat tiers is presented in Table 9-6.

Table 9-6: Tiered Habitat Structure

| Habitat Tier | Habitats |
|-------------------------------|---|
| Agriculture | Cropland, irrigated pasture-grassland, orchards, vineyards |
| Oak Woodland | Blue oak woodland, savannah |
| Riparian (Jurisdictional) | Mixed riparian scrub, mixed riparian woodland, valley oak riparian woodland |
| Riparian (Non-Jurisdictional) | Cottonwood woodland |

¹⁴ Stream and creek habitats were not directly accounted for in the calculation of habitat take and preservation requirements. It is assumed that stream and creeks would be conserved as part of the conservation of other habitat types.

¹⁵ Vernal pool habitat was separated from “wetland” habitats based on the focus on vernal pool protection in the HCP.

| | |
|------------------|--|
| Valley Grassland | Valley grassland |
| Vernal Pool | Vernal pool |
| Wetland | Freshwater marsh, open water, seasonal impoundment, seasonal wetlands, swale |

9.3.1.3 Conservation Requirements by Habitat Tier

The estimated amount of development (or take), preservation, and restoration for each habitat tier is summarized in Table 9-7. Based on the SSHCP conservation strategy, future development would result in the take of 45,607 acres of habitat, for which 54,583 acres would be acquired as part of the HCP preserve system and an additional 2,646 acres of habitat would be restored. A large proportion of these conservation targets is attributed to mitigation requirements. Of the total land area targeted for preservation, 45,553 acres (83.5 percent) are to mitigate for future development. In the context of habitat restoration, approximately 2,646 acres are targeted for restoration, but only 1,146 acres (or 43.3 percent) are for mitigation purposes.

Table 9-7: Conservation Requirements by Habitat Tier

| Habitat Tier | Take | Land Preservation | | Habitat Restoration | |
|-------------------------------|---------------|-------------------|---------------|---------------------|--------------|
| | | Total | Mitigation | Total | Mitigation |
| Agriculture | 13,222 | 15,222 | 13,222 | 0 | 0 |
| Oak Woodland | 77 | 4,077 | 77 | 21 | 21 |
| Riparian (Jurisdictional) | 223 | 446 | 446 | 1,723 | 223 |
| Riparian (Non-Jurisdictional) | 1,846 | 923 | 923 | 0 | 0 |
| Valley Grassland | 28,784 | 31,784 | 28,784 | 0 | 0 |
| Vernal Pool | 323 | 999 | 969 | 323 | 323 |
| Wetland | 1,131 | 1,131 | 1,131 | 579 | 579 |
| Total | 45,607 | 54,583 | 45,553 | 2,646 | 1,146 |

Different habitats would also require different levels and types of management and monitoring, resulting in different costs that are reflected in the mitigation fees. It is assumed that all lands in the HCP preserve system would be subject to monitoring requirements, regardless of whether a property was acquired in fee or conservation easement. However, active management of preserve lands would only occur on habitat owned in fee, with the exception of intensive conservation easements, which would include provisions that allow for targeted management activities on land with ownership interest retained by the landowner. Similarly, payments to landowners for the

purpose of agricultural enhancement would vary by habitat tier based on the proportion of land acquired in fee versus easement.

Plan administration and environmental compliance costs are not expected to vary by habitat type. Therefore, this component of the mitigation fee is constant across habitat tiers, and is based on the proportion of mitigation-based preserve acreage (45,553 acres) relative to total HCP preserve acreage (54,583 acres), or 83.5 percent.

9.3.1.4 Mitigation Fees

The proposed mitigation fees for the SSHCP are presented in Table 9-8, which shows the total fee, as well as a breakdown of the fee into fixed costs over the permit term and contribution to an endowment to fund post-permit operations and management. Proposed mitigation fees under the tiered-fee structure range from approximately \$7,000 to over \$100,000 per developed acre depending on type of habitat developed. The lowest mitigation fee is for non-jurisdictional riparian habitat (\$7,300/acre), which is due primarily to the 0.5:1 mitigation ratio implicit in the conservation requirements. The proposed fee for valley grassland is also on the low end of the range (\$12,600/acre), which is driven by relatively lower land costs in areas targeted for preservation (and accounting for habitat avoidance inside the UDA), as well as the fact that no habitat restoration is required. The proposed mitigation fee for agriculture is an estimated \$15,000/acre, which is higher than valley grassland mainly because the location of targeted preservation is in higher-value conservation zones. The remaining habitat tiers all include some level of habitat restoration, and some have higher mitigation ratios, which drive up the overall fee. The mitigation fee per acre of development for oak woodland is \$27,000/acre, wetland is \$49,400/acre, jurisdictional riparian is \$100,700/acre, and vernal pool is \$108,700/acre.

Table 9-8: Proposed Mitigation Fees

| Fee Component | Agriculture | Oak Woodland | Riparian (Jurisdictional) | Riparian (Other) | Valley Grassland | Vernal Pool | Wetland |
|---|-----------------|-----------------|---------------------------|------------------|------------------|------------------|-----------------|
| Land Acquisition – Purchase | \$10,550 | \$9,530 | \$19,480 | \$4,850 | \$8,040 | \$28,650 | \$9,490 |
| Land Acquisition – Other | \$260 | \$260 | \$520 | \$130 | \$260 | \$780 | \$260 |
| Habitat Assessment, Planning, and Restoration | \$130 | \$13,100 | \$72,510 | \$290 | \$120 | \$66,570 | \$35,470 |
| Habitat Management and Maintenance | \$240 | \$360 | \$370 | \$80 | \$340 | \$820 | \$260 |
| Monitoring and Adaptive Management | \$1,670 | \$1,670 | \$3,520 | \$880 | \$1,670 | \$5,540 | \$1,850 |
| Environmental Compliance | \$70 | \$70 | \$130 | \$30 | \$70 | \$200 | \$70 |
| Remedial Measures | \$20 | \$30 | \$30 | \$10 | \$30 | \$70 | \$20 |
| Agricultural Enhancement | \$290 | \$230 | \$570 | \$150 | \$240 | \$640 | \$240 |
| Plan Development | \$210 | \$210 | \$430 | \$110 | \$210 | \$640 | \$210 |
| Plan Administration | \$1,580 | \$1,580 | \$3,160 | \$790 | \$1,580 | \$4,740 | \$1,580 |
| MITIGATION FEE | \$15,000 | \$27,000 | \$100,700 | \$7,300 | \$12,600 | \$108,700 | \$49,400 |
| <i>Fixed Costs (Permit Term)</i> | <i>\$13,700</i> | <i>\$25,700</i> | <i>\$98,000</i> | <i>\$6,600</i> | <i>\$11,200</i> | <i>\$104,700</i> | <i>\$48,100</i> |
| <i>Endowment Contribution (Post-Permit)</i> | <i>\$1,300</i> | <i>\$1,300</i> | <i>\$2,700</i> | <i>\$700</i> | <i>\$1,300</i> | <i>\$4,000</i> | <i>\$1,400</i> |

9.3.1.5 Land Dedication

The implementation strategy outlined in the SSHCP includes a land dedication system that can be utilized to acquire preserve lands and reduce mitigation fees (see Section 10.6.4). Where land is dedicated, which could include areas of habitat avoidance on properties, and full conservation credit is granted, the mitigation fee would be adjusted by excluding some portion or the entire land purchase component of the fee since the land is being provided up front. The reduction in fee is dependent on applicable mitigation ratios by habitat type. For example, for agricultural land (1:1 mitigation ratio), dedicating one acre of agricultural land for every acre of development would reduce the mitigation fee by the entire land purchase component of the fee. However, for vernal pools, the mitigation ratio is 3 to 1, so one acre of land dedication would only mitigate for one-third of an acre of habitat development; therefore, the mitigation fee would only be reduced by one-third of land purchase costs. The remaining components of the proposed fees would remain unchanged as they are used to fund ongoing conservation activities that are required on all preserve lands.

9.3.1.6 Applicability of Mitigation Fees

The proposed mitigation fees would apply to all covered activities (see Chapter 4), including those proposed by a Plan Permittee, that result in the take of covered habitat in the SSHCP planning area (see Chapter 7). Habitats exempt from the fee are those lands that are not covered for take, reflecting their development status and/or negligible benefit for covered species. Exempt habitats include: aqueducts, disturbed, eucalyptus woodland, high-density development, low-density development, major roads, mine tailings, recreation/landscaped, wetland restoration, and woodland restoration. This exemption allows lands within more urban landscapes to be redeveloped and thus promotes in-fill development. The land cover map developed for the SSHCP would provide the basis for the types of habitats that are impacted by a proposed project.

9.3.1.7 Collection of Mitigation Fees

For private projects, all mitigation fees would be collected by the applicable jurisdiction and transferred to an account administered by the Implementing Entity. All mitigation fees paid by public agencies (i.e., Permittees) would be transferred directly to the Implementing Entity. The process and schedule for transferring mitigation fees would be developed by the local jurisdictions and the Implementing Entity. Both the local jurisdictions and Implementing Entity would maintain records of all mitigation fee payments associated with the SSHCP.

9.3.1.8 Timing of Mitigation Fee Payments

Mitigation fees must be paid prior to, but no more than 60 days in advance of, any site disturbance or the issuance of any permit for grading, building, or other site improvements. The timing of mitigation fee payments is outlined in Chapter 10, Plan Implementation; see Section 10.5.2.

9.3.1.9 Pace of Development and Fee Collection

It is the intent of the SSHCP that conservation activities, including land preservation, stay ahead of the pace of development impacts. This “Get-Ahead-Stay-Ahead” provision is outlined in Chapter 10, Plan Implementation; see Section 10.5.3 for more information.

9.3.1.10 Mitigation Fee Adjustment Program

The proposed funding program must ensure that the SSHCP is sustainable over time. If funding lags behind increasing costs, plan implementation may be compromised. Therefore, the funding program must be flexible and able to respond to changing economic conditions, including inflationary pressures and a dynamic real estate market. It must also be able to respond to other unexpected funding shortfalls over time. Because it is not possible to predict future changes in costs and revenues, the SSHCP includes a mitigation fee adjustment program that provides for periodic adjustments to proposed mitigation fees. There are two components to the fee adjustment program: automatic adjustments and periodic audits.

Automatic Adjustment of Mitigation Fees

The main drivers of mitigation fees can be organized into two categories: land acquisition and operations and maintenance (O&M). The cost of land acquisition is tied directly to land values and the market for undeveloped land in the HCP planning area, which has been volatile with sharp increases and declines over the past decade. O&M costs, which cover all other costs considered in this analysis, are tied more generally to changes in the cost of labor/personnel, services, and goods and materials used in operating the preserve system. Based on these inherent differences, it is anticipated that land acquisition and O&M costs would likely change at different rates over time, and accordingly, they require different adjustment mechanisms. All of the proposed mitigation fees presented in Table 9-8 would be automatically adjusted by March 15th of each year according to the following indices, which are summarized in Table 9-9.

There are no readily available cost indices for land acquisition, as the variation in land values is often attributed to site-specific factors. However, there are correlations between the housing market, housing prices, and land costs. As such, trends in housing prices can provide insight on changes in land values, particularly land with high development value. Several sources track housing prices. For this analysis, the recommended index to adjust the land acquisition cost portion of fees is the annual Home Price Index (HPI) for the Sacramento-Arden-Arcade-Roseville, CA Metropolitan Statistical Area (MSA) from the Office of Federal Housing Enterprise Oversight (OFHEO). The fee adjustment index would be based on the change in the average annual HPI (Quarter 1 through Quarter 4) for the prior calendar year. For example, the change in land acquisition portion of the fee in 2010 would be based on the average annual change in the HPI from calendar year 2008 to 2009. Since 1977, the average annual change in the HPI index for the Sacramento area has been approximately 6.0 percent.

O&M costs would be indexed using the California Construction Cost Index (CCCI).¹⁶ The CCCI was determined to be the most applicable index as it tracks costs most relevant to ongoing O&M activities. An alternative to the CCCI, the Consumer Price Index (CPI), was not considered to be an accurate gauge of changes in HCP implementation costs as it includes too broad a spectrum of commodities, many of which are not pertinent to HCP activities. The fee adjustment index would be based on the change in the average annual CCCI (January through December) for the prior calendar year. Since 1999, the CCCI has increased at an average rate of about 4.0 percent per year.

Table 9-9: Mitigation Fee Adjustment Indices^{1,2}

| Fee Component | Adjustment Index | Historic Index Range | Average Annual Change |
|---|---|----------------------------|-----------------------|
| Land Acquisition (Purchase Only) ³ | Change in the annual Home Price Index (HPI) for the Sacramento-Arden-Arcade-Roseville, CA MSA the prior calendar year (Office of Federal Housing Enterprise Oversight) ⁴ | -19.0% - 22.5% (1977-2008) | 5.89% |
| O&M (Other Fee Components) | Change in the California Construction Cost Index (CCCI) for the prior calendar year (California Department of General Services) ⁵ | 0.9% - 6.7% (1999-2008) | 3.98% |

- 1/ Fee adjustment indices would apply to all mitigation fee habitat tiers
- 2/ Mitigation fees to be adjusted by March 15 annually based on the indices for the prior calendar year
- 3/ Applies to land acquisition costs only. Excludes costs associated with transactions, due diligence, preserve documentation records, and initial site improvements
- 4/ See <http://www.ofheo.gov/hpi.aspx>
- 5/ See <http://www.resd.dgs.ca.gov/CaliforniaConstructionCostIndexPage.htm>

Periodic Audit and Adjustment of Mitigation Fees

In addition to annual fee adjustments, it will be important to conduct a comprehensive review of the SSHCP funding program, focusing on mitigation fee levels, to ensure that the fees generated by development and other covered activities are adequately covering their share of Plan costs. A comprehensive fee audit would be completed by March 15 every three years for the first 15 years of the plan (i.e., years 3, 6, 9, 12, and 15) and every five years thereafter (i.e., years 20, 25, 30, 35, 40, and 45), where year 1 is the first full calendar year of HCP implementation. The frequency of fee audits was established to account for cost-related uncertainties in early years of Plan implementation and to allow time to accumulate sufficient data to analyze the relationship between costs and fee revenues. The audit process would include a detailed review of implementation costs and how they have tracked the assumptions in the original funding plan.

¹⁶ The California Construction Cost Index is developed based upon Building Cost Index (BCI) cost indices for San Francisco and Los Angeles produced by Engineering News Record (ENR). It is tracked and reported at the State level by the California Department of General Services, Real Estate Services Division.

For example, actual land sales in the planning area that have occurred subsequent to SSHCP, including land acquisitions made as part of the SSHCP, would be reviewed and used as inputs to determine the current land costs at the time the audit is performed. O&M costs would also be reviewed to determine whether the automatic adjustment of fees is tracking actual costs. Following completion of the independent fee audits, mitigation fees may be adjusted to reflect refined cost estimates. The fee audit would be conducted either by the Implementing Entity or by an outside, independent financial auditor. Automatic annual fee increases would resume after the periodic fee audit and would continue until the next audit.

9.3.2 Non-Mitigation Costs and Funding Requirements

As described above, the South Sacramento HCP includes in its conservation strategy provisions that would aid in the recovery of species, which extend beyond mitigation requirements attributable to future development. Non-mitigation-based funding requirements have been accounted for separately and are presented in Table 9-10. The total cost of implementing conservation activities beyond mitigation requirements is an estimated \$214.5 million over the 50-year permit term. The greatest costs are associated with achieving habitat restoration goals, roughly \$109.3 million. Overall, these non-mitigation costs account for 25.9 percent of total HCP costs over the permit period. During the post-permit period, annual ongoing costs for mitigation are estimated to average \$823,200 per year, accounting for 16.4 percent of ongoing costs for the overall HCP.

Table 9-10: Non-Mitigation-Based Funding Requirements (\$millions)

| Cost Category | Permit Term (Total) | Post-Permit (Annual Average) |
|---|---------------------|------------------------------|
| Land Acquisition | \$76.2 | ~ |
| Habitat Assessment, Planning, & Restoration | \$109.3 | ~ |
| Habitat Management | \$1.3 | < \$0.1 |
| Monitoring & Adaptive Mgmt | \$11.6 | \$0.4 |
| Environmental Compliance | \$0.6 | ~ |
| Remedial Measures | \$0.1 | ~ |
| Agricultural Enhancement | \$2.1 | \$0.1 |
| Plan Development | \$1.9 | ~ |
| Plan Administration | \$11.5 | \$0.3 |
| Total | \$214.5 | \$0.8 |

9.3.3 Other Funding Sources

There are many potential public funding sources and mechanisms that can be used to offset HCP implementation costs. These other funding sources are listed in this section and described in more detail in Table 9-11. Public funding would primarily be used to offset costs attributed to conservation activities that exceed mitigation requirements (see Section 9.3.3), while mitigation-based costs attributed to future development would be covered by mitigation fees. The ability to secure public funding would be vital to the success and financial viability of the HCP. This section identifies available funding sources and considers their applicability in the context of the SSHCP. Grants represents the most viable source of public funding available for the SSHCP and are available at the federal, state and local level. Public funding from local municipalities, such as tax financing, fees, and/or property assessments are not considered in this analysis.

9.3.3.1 Grants and Other Funding Programs

A wide range of grants is available to help offset the costs of HCP implementation. Grants are available at the federal and state government levels, as well as from non-profit organizations. Concerns with grant funding include the uncertainty with securing grants, fluctuations in available funding over time, time and expense in preparing grant applications, and restrictions on uses of grant funds. Nevertheless, grants and other funding sources remain important potential sources of funding for the SSHCP.

Federal

- HCP Land Acquisition Grants, Cooperative Endangered Species Conservation Fund (U.S. Fish and Wildlife Service)
- Conservation Grants, Cooperative Endangered Species Conservation Fund (U.S. Fish and Wildlife Service)
- North American Wetlands Conservation Act Grants (U.S. Fish and Wildlife Service)
- Wildlife Restoration Program Grants (U.S. Fish and Wildlife Service)
- State Wildlife Grants Program (U.S. Fish and Wildlife Service)
- Land & Water Conservation Fund Act State Grants (National Park Service, California Department of Parks and Recreation)
- Farm and Ranch Lands Protection Program Grants (Natural Resource Conservation Service)
- Central Valley Project Improvement Act Habitat Restoration Program (US Bureau of Reclamation, U.S. Fish and Wildlife Service)
- Clean Water State Revolving Fund (U.S. Environmental Protection Agency)

Table 9-11: Public and Other Funding Sources

| Program Name | Program Administrator | Type | Funding Sources | Total Funding | Description |
|--|---|-------|-----------------|------------------------------------|---|
| HCP Land Acquisition Grants | U.S. Fish and Wildlife Service | Grant | Federal | \$35.0 million (FY 2008) | Funded through the Cooperative Endangered Species Conservation Fund, Section 6. Grants for HCP land acquisition. Current USFWS policy requires non-federal match of 25% that cannot be from local mitigation fees. |
| Conservation Grants | U.S. Fish and Wildlife Service | Grant | Federal | \$9.8 million (FY 2008) | Funded through the Cooperative Endangered Species Conservation Fund, Section 6. Grants for implementation of conservation projects. Requires 25% match of project costs. |
| North American Wetlands Conservation Act Grants | U.S. Fish and Wildlife Service | Grant | Federal | \$40.3 million (FY 2008) | Program provides matching grants to non-federal agencies, organizations, or individuals to aid in wetland conservation projects, including land acquisition, restoration, and enhancement. Non-federal match must be at least 1:1. |
| Wildlife Restoration Program Grants | U.S. Fish and Wildlife Service | Grant | Federal | \$271.7 million (FY2009) | Authorized under the Pittman-Robertson Act. Used for the selection, restoration, rehabilitation, and improvement of wildlife habitat, wildlife management research, and distribution of information produced by the projects |
| State Wildlife Grants Program | U.S. Fish and Wildlife Service | Grant | Federal | \$61.5 million (FY2008) | Program provides federal grant funds for developing and implementing programs that benefit wildlife and their habitats, including species not hunted or fished. Priority is placed on projects that benefit species of greatest conservation concern. |
| Land and Water Conservation Fund | National Park Service / California Department of Parks and Recreation | Grant | Federal/State | \$23.1 million (FY2008) | Available to cities, counties and districts with authority to acquire, develop, operate and maintain public park and recreation areas. Dollar-for-dollar matching grants for planning, acquisition, and development of outdoor recreation areas and facilities |
| Farm and Ranch Land Protection Program | Natural Resource Conservation Service, U.S. Department of Agriculture | Grant | Federal | \$72.8 million (FY2007) | Purpose is to protect active farm and ranch lands. USDA provides up to 50% of conservation easement value. Qualification criteria are: (1) contain prime, unique, or other productive soil or historical or archaeological resources; (2) be part of a pending offer from a State, tribe, or local farmland protection program; (3) be privately owned; (4) have a conservation plan for any highly erodible land; (5) be large enough to sustain agricultural production; (6) be accessible to markets for what the land produces; (7) have surrounding parcels of land that can support long-term agricultural production; and (8) property be owned by an individual or entity that does not exceed the Adjusted Gross Income (AGI) limitation. Requires partnerships with other agencies. |
| Central Valley Project Improvement Act (CVPIA) Habitat Restoration Program | U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service | Grant | Federal | \$1.5 million annually (1996-2008) | Provides funds for land acquisition, management, monitoring, research, restoration for endangered/threatened species impacted by the CVP. Available to federal and state government agencies, private non-profit or profit organizations, and individuals |
| Wildlife Conservation Board Grants | California Department of Fish and Game, WCB | Grant | State | \$92 million (2007) | Various programs funded by Proposition 40 and Proposition 50, including acquisition and protection of habitat, costal and wetlands protection, and grazing lands and ranchlands program. Available to federal, state, and local government agencies, and nonprofit conservation organizations; in some cases, private land owners |

Table 9-11: Public and Other Funding Sources

| Program Name | Program Administrator | Type | Funding Sources | Total Funding | Description |
|--|--|-------|-----------------|----------------------------------|---|
| California Farmland Conservancy Program | California Department of Conservation | Grant | State | \$25 million (ongoing) | Grants for preservation of strategic agricultural lands. For agricultural conservation easement acquisition projects, temporary fee title acquisition projects, policy/planning projects, restoration of and improvements to agricultural land already under easement. CFCP enabling legislation requires that applicants be a city, county, or qualified non-profit organization. |
| Habitat Conservation Fund | California Department of Parks and Recreation | Grant | State | \$2 million (2007) | Purpose is to protect fish, wildlife, and native plant resources, to acquire or develop wildlife corridors and trails, and to provide for nature interpretation and other programs which bring urban residents into park and wildlife areas. Program requires 50% non-state matching funds. Available to cities, counties and districts. |
| Watershed Coordinator Grant Program | CA Department of Conservation | Grant | State | \$9.0 million (starting in 2008) | Grant funding promotes watershed management and watershed improvements. Grant program expanded through the California Bay Delta Authority. |
| Resources Trust Fund | CA State Lands Commission | Grant | State | Fluctuates | Established in 1997 by SB 271. Based on Tidelands Oil Revenues collected by the State of California. Portion of the Resources Trust Fund is deposited into the Natural Resources Infrastructure Fund (NRIF), which can be used for: environmental review and monitoring by DFG; Natural Community Conservation Plan (NCCP) acquisitions; Habitat Conservation Fund (HCF) funding; and non-point source pollution control. |
| Keystone Initiative Grants | National Fish & Wildlife Foundation | Grant | Non-Profit | \$50,000 to \$300,00 | The program goals are to achieve measurable outcomes in the conservation of fish, wildlife, plants and the habitats on which they depend. Funds typically require a minimum 2:1 non-federal match. Awards are made on a competitive basis to eligible grant recipients, including federal, tribal, state, and local governments, educational institutions, and non-profit conservation organizations. |
| National Fish and Wildlife Foundation - Charter Grant Programs | National Fish & Wildlife Foundation | Grant | Non-Profit | | Grant program funds Acres for America, Native Plant Conservation Initiative, State Comprehensive Wildlife Conservation Support Program, and Five-star Restoration Challenge Grants. |
| CALFED B-Delta Programs | California Bay Delta Authority and other California agencies | Grant | State | \$10 million (2007) | Various programs funded by Proposition 50 for habitat restoration and protection, conservation and restoration of watersheds. Available to State, federal, local, and non-governmental agencies. |
| Clean Water State Revolving Fund | Environmental Protection Agency | Loans | Federal | \$68 billion (overall) | Revolving fund provides low-interest loans for projects that improve water quality and reduce non-point source pollution, including wetland preservation, restoration and creation, and the protection of vernal pools and associated habitat such as oak woodlands. Loans can cover 100% of project costs with no cash up front. Available to local governments, non-profits, municipalities, farmers, and homeowners. |
| Conservation and Science Program | David and Lucile Packard Foundation | Grant | Non-Profit | \$43.2 million (2006) | Funding is available through the Conservation and Science Program. |
| Sustainable Communities and Economies Program | The Columbia Foundation | Grant | Non-Profit | \$3.3 million (FY 2007) | Program is for the protection of natural resources and biodiversity. Priority is given to projects in the San Francisco Bay Area, Northern California, and California Statewide projects |
| Various Grants | William & Flora Hewlett Foundation | Grant | Non-Profit | Unknown | The Foundation makes grants to nonprofit charitable organizations. The Foundation normally does not make grants intended to support basic research, capital construction funds, endowment, general fundraising drives, or fundraising events. One of the Foundation's goals is to save the ecosystem of the North American West |

State

- California Wildlife Conservation Board Grants
- California Farmland Conservancy Program Grants (California Department of Conservation)
- Habitat Conservation Fund (California Department of Parks and Recreation)
- Watershed Coordinator Grant Program (California Department of Conservation)
- Resources Trust Fund (California State Lands Commission)
- CALFED Water Program Grants (California Bay-Delta Authority, California Department of Water Resources)

Non-Profit

- Keystone Initiative Grants (National Fish and Wildlife Foundation)
- Special Charter Programs (National Fish and Wildlife Foundation)
- David and Lucile Packard Foundation
- The Columbia Foundation
- William & Flora Hewlett Foundation

9.3.4 Funding Adequacy and Assurances

The SSHCP funding program is designed so that mitigation-based funding sources would meet all expected mitigation costs of the Plan. Proposed conservation activities that exceed mitigation requirements would rely on other funding sources, which are not definite and fluctuate over time. This section discusses the adequacy of the SSHCP funding program.

9.3.4.1 Short-Term Funding Shortfalls

It is acknowledged that future costs of conservation are difficult to predict. Therefore, the proposed mitigation fee adjustment program would be used to address any potential funding shortfalls in meeting the mitigation costs of the Plan, which would help ensure funding adequacy over the long term. In addition, a contingency fund would be maintained to address any funding shortfalls, associated primarily with higher-than-expected land management and monitoring costs in the short term. Contingency funding was accounted for in estimating total plan costs in Section 9.2. If this fund is inadequate to cover short-term deficiencies, the Implementing Entity would consider whether to adjust the level of conservation activities, including management and monitoring requirements, without jeopardizing the need to meet conservation requirements of the Plan. Adjusting management or monitoring requirements outside the adaptive management framework would require approval of the Implementing Entity and Wildlife Agencies, and some changes may require a minor or major amendment to the Plan.

9.3.4.2 Funding for Conservation beyond Mitigation Requirements

A portion of HCP implementation costs would need to be covered by non-mitigation funding sources. The most likely source of funding would come in the form of grants from federal and state agencies and non-profit organizations. The availability and reliability of these funding sources fluctuates over time, and therefore, there is the potential that funding would not be available to implement non-mitigation conservation activities. In these cases, the Implementing Entity would review and adjust conservation priorities in accordance with available funding. Adjusting management or monitoring requirements outside the adaptive management framework would require approval of the Implementing Entity and Wildlife Agencies, and some changes may require a minor or major amendment to the Plan. In no case would funding shortfalls associated with non-mitigation conservation activities be covered through changes in mitigation fees.

9.3.4.3 Post-Permit Funding (Endowment)

The management, monitoring, and administration of SSHCP preserve lands would continue in perpetuity after the 50-year permit term, which requires a perpetual funding stream to cover costs over time. Perpetual funding needs require the establishment of a non-wasting endowment,¹⁷ which generates sufficient interest earnings to cover ongoing costs. The required size of the endowment depends on the magnitude of ongoing costs and the expected return on investment from the endowment over time. The average annual cost to operate the preserve system during the post-permit term is \$5.0 million, with approximately \$4.2 million attributed to mitigation costs. Actual long-term costs may be lower if the Implementing Entity can develop streamlined procedures for management and monitoring during the permit term, reduce administrative costs, or secure other funding sources (e.g., grants). The endowment required for post-permit funding is an estimated \$167.7 million, of which \$140.3 million would be collected via mitigation fees.¹⁸ The remaining \$27.4 million would be required to cover ongoing costs with non-mitigation lands (to the extent they become part of the preserve system) and would be secured from non-mitigation sources.

The Implementing Entity would attempt to secure non-mitigation endowment funding for SSHCP during the early phases of the permit term, and would coordinate with the Wildlife Agencies on progress toward this goal. If it appears that the endowment fund for non-mitigation preserve lands would not be secured, the Permittees would consult with the Wildlife Agencies on the appropriate course of action, including potential Plan amendments.

9.3.5 Financial Management Framework

The financial framework that would be used to manage operating and endowment funds for plan implementation is an important consideration for the financial viability of the plan and provides

¹⁷ An endowment generally refers to a transfer of funds to be invested for a specific purpose and for which the principal amount is to remain intact (i.e. “non-wasting”) in perpetuity or for a specific period of time.

¹⁸ The endowment is calculated using a three percent capitalization rate; see Section 9.3.6 for more information.

guidance on assumptions implicit to the cost model. This section analyzes likely investment and savings options available to the SSHCP.

Investment options for mitigation fee revenues and associated endowment funds are dependent on the structure of the Implementing Entity. This analysis assumes that the Implementing Entity has access to investment options of the Permittees, including Sacramento County. Sacramento County has a “Pooled Investment Fund,” in which funds of government agencies can be placed to earn a reasonable return prior to being used for various governmental purposes.¹⁹ The specific objectives of the Fund, by rank, include: (1) safety of principal and avoidance of capital losses; (2) liquidity, allowing the County Director of Finance to meet all operating requirements reasonably expected in any depositor’s fund; (3) public trust, specifically avoidance of any transactions that would impair public confidence in the County and participating agencies; and (4) maximum rate of return, consistent with risk, prudent investment, and cash flow characteristics.

The Sacramento County Pooled Investment Fund uses as a performance benchmark the California Local Agency Investment Fund (LAIF) as they share a similar portfolio structure. Annual performance of the LAIF and the Sacramento County Pooled Investment Fund is shown in Table 9-12. For the period Fiscal Year 1987/88 through Fiscal Year 2007/2008, the average annual return for the LAIF was 5.27 percent, while that for the Sacramento County Pooled Fund was 5.39 percent. The average difference in annual returns between the two funds over that period was 0.12 percent.

Table 9-12: Historic LAIF and Sacramento County Pooled Investment Fund Return on Investment (FY 1987/88 – FY 2007/08)

| Fiscal Year | CA LAIF | Sacramento County Pooled Investment Fund | Percent Difference (LAIF-Sacramento Co.) |
|-------------|---------|--|--|
| 87/88 | 7.85% | 7.12% | 0.73% |
| 88/89 | 8.64% | 8.51% | 0.12% |
| 89/90 | 8.65% | 8.55% | 0.10% |
| 90/91 | 8.00% | 8.38% | -0.37% |
| 91/92 | 6.21% | 6.95% | -0.74% |
| 92/93 | 4.70% | 7.22% | -2.52% |
| 93/94 | 4.38% | 5.74% | -1.37% |
| 94/95 | 5.52% | 5.21% | 0.31% |

¹⁹ Investors in the Sacramento County Fund include Sacramento County, school and community college districts, districts directed by the Board of Supervisors, and independent special districts for which the County Director of Finance serves as treasurer. Investments of local agencies outside of these categories are governed by California Government Code §53684 et.seq. While participation in the Sacramento County Fund by the Implementing Entity HCP would be at the discretion of the County, for this discussion, it is assumed that the HCP will be permitted to invest in the Sacramento County Fund.

| | | | |
|----------------|--------------|--------------|---------------|
| 95/96 | 5.70% | 5.26% | 0.44% |
| 96/97 | 5.59% | 5.45% | 0.13% |
| 97/98 | 5.69% | 5.45% | 0.24% |
| 98/99 | 5.34% | 5.21% | 0.13% |
| 99/00 | 5.67% | 5.62% | 0.05% |
| 00/01 | 6.12% | 5.88% | 0.24% |
| 01/02 | 3.43% | 3.54% | -0.11% |
| 02/03 | 2.17% | 2.20% | -0.03% |
| 03/04 | 1.53% | 1.43% | 0.09% |
| 04/05 | 2.23% | 2.19% | 0.04% |
| 05/06 | 3.84% | 3.91% | -0.07% |
| 06/07 | 5.11% | 5.05% | 0.06% |
| 07/08 | 4.37% | 4.28% | 0.09% |
| Average | 5.27% | 5.39% | -0.12% |

For this analysis, if it is assumed that the HCP endowment can be invested to yield a return of 5.39 percent per year over the long term and if inflation is assumed to average 2.0-3.0 percent per year, the difference of approximately 3.0 percent is the real return that the endowment fund should provide; this is the capitalization rate used in the HCP cost model.

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