

# **COACHELLA VALLEY CONSERVATION COMMISSION**

## **FINAL REPORT 2011 LOCAL DEVELOPMENT MITIGATION FEE NEXUS STUDY**

**May 16, 2011**

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# Executive Summary

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## Introduction

Beginning in 1994 local, state, and federal agencies responsible for regulating development and protecting habitat in the Coachella Valley participated in an extensive and comprehensive planning process. This planning effort has produced the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (MSHCP).<sup>1</sup>

The California Department of Fish and Game issued the Natural Community Conservation Plan (NCCP) Permit for the MSHCP on September 9, 2008. The U.S. Fish and Wildlife Service issued the federal permit (the "Permit") for the MSHCP on October 1, 2008. The Permit will expire in 2083, or 75 years from its date of issuance.

The policy objectives of the MSHCP are to:

- (1) Conserve adequate habitat in an unfragmented manner by assembling a Reserve System of habitat lands and then managing and monitoring these lands in perpetuity to maximize their conservation value, and
- (2) Simplify compliance with environmental laws by providing an efficient and streamlined regulatory approach to provide incidental take authority for otherwise lawful and permitted activities such as new development.

The MSHCP obligates its Local Permittees to establish a Reserve System of lands to provide habitat for Covered Species and conserved natural communities. After these lands are acquired by Permittees, the Permittees are obligated to fund a monitoring program to track and measure success of the Covered Species within the Reserve System, and a management program to assess and tailor preservation activities and land management practices in order to conserve Covered Species and natural communities in perpetuity.

Land acquisition is a critical component of the conservation process because conserving land mitigates the effects of development and urbanization discussed below. Monitoring and Management (M&M) programs serve as an ongoing evaluation of the efficacy of conservation. The studies conducted as part of the monitoring program assesses the biological characteristics and particular needs of Covered Species and natural communities within the MSHCP. The management program conducts a range of activities to ensure that Reserve System sustains the habitat values measured by monitoring program assessments. Since land acquisition, monitoring and management are so intimately connected, conservation cannot be achieved without funding all three concurrently.

A Local Development Mitigation Fee (LDMF) imposed on new development projects will be a primary source of funding necessary to comply with the provisions of MSHCP, the Implementing

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<sup>1</sup> This report contains terms defined in the MSHCP, and those terms are capitalized in the body of the report. The definitions established by the MSHCP are found in Appendix B.

Agreement (IA), and the Permit. This report documents the legal and policy basis necessary for Coachella Valley cities and the County of Riverside to update the LDMF.

## Urbanization in the Plan Area

The Coachella Valley (the "Valley") is a broad, low elevation, northwest-southeast trending valley comprising the westernmost limits of the Sonoran Desert. The Valley is located in the central portion of Riverside County, approximately 100 miles east of Los Angeles. The Plan Area includes approximately 1.1 million acres, an amount that excludes Indian reservation lands not subject to the MSHCP.

Growth projections are based on the estimates of residential dwelling units and commercial square feet developed annually by agencies collecting the Transportation Uniform Mitigation Fee (TUMF) and data provided by the California Department of Resources Farmland Mapping and Monitoring Program (FMMP). CVAG calculates that approximately 300 acres were developed in the two year period beginning in 2009 and ending in 2010, also known as years one and two.

Approximately 1,750 acres, on average, were developed annually over a subset of the 1989-2010 data selected to simulate a trough to peak period of the current real estate cycle. When the share of growth from the City of Desert Hot Springs is removed from this total, as the city currently does not participate in the MSHCP, the long term average rate of development is 1,610 acres per year.

Since development has slowed markedly during the recent economic downturn, the LDMF analysis assumes that the annual total of acres developed will increase gradually as the market recovers. The analysis assumes that approximately 300 acres per year will be developed in the Valley during the next few years, growing gradually to 1,610 acres per year by year 13. At this rate, a total of 110,170 acres will be developed over the remainder of the 75-year life of the MSHCP.

## Need for Habitat Conservation

Identifying the MSHCP Reserve System was the result of an extensive and comprehensive analysis conducted by an inter-agency planning team and led by CVAG. The planning team used the best available scientific and commercial data standard to develop the MSHCP with objectives that include the establishment, monitoring, and management of a Reserve System.

The planning team developed a list of 27 Covered Species and 27 natural communities to provide habitat for the Covered Species. This planning process resulted in the identification of 745,900 acres across 21 conservation areas, from which the MSHCP Reserve System will be established. The Reserve System ensures the conservation of these species and natural communities as new development occurs. Without new development, there would be no need to establish the Reserve System because the loss of existing habitat would not occur as a result of development activities.

## Cost of Habitat Conservation

Of the 745,900 acres in the Conservation Areas, a maximum of 22,420 acres may be developed, resulting in a Reserve System of 723,480 acres. Just over three-quarters of the MSHCP Reserve System, or 564,800 acres, have been conserved through 2010. Complementary Conservation

and state and federal contributions to MSHCP implementation will conserve an additional 59,680 acres from September 2010 forward.

An additional 7,800 acres are in areas where the only Conservation Objective is maintaining the fluvial sand transport function through flood control standards and other regulatory mechanisms; these 7,800 acres will not be acquired. This leaves 102,100 acres to be conserved. Of this, 10,800 acres are non-Permittee public and quasi-public lands, and 7,500 acres are Permittee-owned lands that will be conserved in perpetuity under the MSHCP. As of December 31, 2010, the land remaining to be purchased by Local Permittees is 86,580 acres. The LDMF is the primary funding source for this habitat acquisition program.

The LDMF is also the primary funding source of M&M for the conserved acres. M&M activities required by the MSHCP are directly related to the types and amounts of land acquired for the Reserve System. As stated in the MSHCP, the Monitoring and Adaptive Management Program is designed to increase the level of knowledge about species covered by the Plan, conserved natural communities, ecological processes, and connectivity. Changes in management of the Conservation Areas could result from monitoring studies. As a result, the cost of habitat conservation necessarily includes the research, equipment and other costs associated with the M&M programs.

An objective of the LDMF Nexus Study is to demonstrate that sufficient funding is available for the Permittees' habitat acquisition program and all M&M required for these lands after acquisition. A financial model was used to calculate the level of the LDMF needed to fully fund both acquisition and M&M programs after deducting other anticipated revenues and interest earnings on fund balances. In this model, LDMF revenue is allocated among three funds: the Land Acquisition Fund, the Monitoring & Management Fund and the Endowment Fund.

Habitat acquisition expenditures and matching revenues would be accounted for in a Land Acquisition Fund. Meanwhile, M&M expenditures and matching revenues would be accounted for in a Monitoring & Management Fund. A detailed accounting of cost and revenue components for these two funds is found in Chapter 4.

As stated in the MSHCP, the Local Permittees "shall also fund an endowment for the Monitoring and Management Programs." Further, the MSHCP states that "The Local Permittees shall establish an endowment to fund the Monitoring and Management Programs for [conserved] lands *in perpetuity*" (emphasis added)<sup>2</sup>. Accordingly, such revenues contributed by the Local Permittees and the funds used to generate a source of perpetual funding for M&M Programs are accounted for in the Endowment Fund.

The Coachella Valley Conservation Commission (CVCC), a joint powers authority that was created to implement the MSHCP, would manage the funds as part of these responsibilities. The CVCC would stop collecting LDMF revenue and would terminate the Land Acquisition Fund after

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<sup>2</sup> MSHCP Section E.S.6: Obligations of the Permittees, p. ES-18.

50 years. A key objective of the Nexus Study is to support the purchase of all habitat conservation lands within 45 years.

## Cost Allocation and Fee Schedule

**Table E.1** presents the Local Development Mitigation Fee schedule for the MSHCP in 2011 dollars, the base year of cost and revenue estimates in this analysis. The fee would be imposed per dwelling unit for residential land uses and per acre for nonresidential land uses. Per the MSHCP, “the proposed term of the Permits is 75 years, which is the length of time required to fully fund Plan implementation.”<sup>3</sup> Accordingly, the LDMF is charged during the entire 75 year lifetime of the Permit.

The MSHCP states that “the acquisition program is projected to require 30 years to acquire all the Permittee obligation land.”<sup>4</sup> Current economic conditions make the acquisition of all Permittee obligation lands within 30 years of the MSHCP impossible without the imposition of a substantially higher fee. As a result, this analysis extends the projected land acquisition period to 45 years.

Accordingly, the fee schedule in Table E.1 below shows two distinct LDMF amounts for two different periods. The years 2011-2053 are years in which the CVCC is in the process of acquiring land. Years 2054-2083 occur after the CVCC will have completed land acquisition; during these years LDMF revenue is allocated to M&M expenses for lands already acquired, and to the endowment.

In 2054, habitat acquisition is complete and the LDMF amount is adjusted to cover remaining program costs. Since the bulk of program costs are related to land acquisition, the fee decreases by 75 percent in real terms in year 46 of the LDMF program. This adjustment is made to ensure that the CVCC does not collect more LDMF revenue than is necessary to fund the MSHCP. The financial model underlying the fee schedule in Table E.1 is designed to deplete the balance of the Land Acquisition Fund after land acquisition is complete.

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<sup>3</sup> MSHCP Section E.S.1: Background, Purpose, Scope, Process, and Regulatory Context, p. ES-1.

<sup>4</sup> MSHCP Section E.S.1: Background, Purpose, Scope, Process, and Regulatory Context, p. ES-2.

**Table E.1: Fee per Acre**

	2011-2053	2054-2083
Fee per Acre <sup>1</sup>	\$ 5,600	\$ 1,418
Total Acres Developed <sup>2</sup>	61,603	48,300
Local Development Mitigation Fee Revenue	\$ 344,976,800	\$ 68,489,400

Note: Local Development Mitigation Fee revenue rounded to thousands.

<sup>1</sup> The fee for years 2054-2083 reported in this table is an average fee for this period. Since land acquisition is complete by 2053, the fee for years 2054-2083 is adjusted so that the fee amount is just high enough to cover remaining program costs and no more.

<sup>2</sup> Excludes approximately 360 acres of development that was begun prior to MSHCP Permit approval which will be exempt from the Local Development Mitigation Fee.

Sources: Tables A-1 through A-6; Willdan Financial Services.

**Table E.2** shows the fee per acre calculated if development occurring in the City of Desert Hot Springs is included. Details of the impact of the entry of the City of Desert Hot Springs into the MSHCP are discussed in Chapter 1 of this analysis.

**Table E.2: Fee per Acre, with Desert Hot Springs**

	2011-2053	2054-2083
Fee per Acre <sup>1</sup>	\$ 5,150	\$ 1,304
Total Acres Developed <sup>2</sup>	66,983	52,500
Local Development Mitigation Fee Revenue	\$ 344,962,450	\$ 68,460,000

Note: Local Development Mitigation Fee revenue rounded to thousands. This fee is based on an assumption that the City of Desert Hot Springs represents, on average, 8% of development in the Coachella Valley.

<sup>1</sup> The fee for years 2054-2083 reported in this table is an average fee for this period. Since land acquisition is complete by 2053, the fee for years 2054-2083 is adjusted so that the fee amount is just high enough to cover remaining program costs and no more.

<sup>2</sup> Excludes approximately 360 acres of development that was begun prior to MSHCP permit approval which will be exempt from the Local Development Mitigation Fee.

Sources: Tables A-1 through A-6; Willdan Financial Services.

## *Mitigation Fee Act Findings*

Development impact fees are one-time fees, typically paid when a building permit is issued, imposed on development projects by local agencies responsible for regulating land use (cities

and counties). The five statutory findings required by the Mitigation Fee Act for adoption of the LDMF are summarized in Chapter 6 and supported in detail by the remainder of the report.

## Implementation

The LDMF would be collected at time of, building, or other appropriate development- related permit issuance. To implement the fee this report recommends the CVCC do the following:

- ♦ Assist Local Permittees in adopting an ordinance and resolution imposing the LDMF on new development and that includes an inflation adjustment to the fee;
- ♦ Work with Local Permittees to develop administrative guidelines for the LDMF program.
- ♦ Program fee revenues to specific acquisition projects and related expenditures, including M&M and related administrative costs;
- ♦ Maintain a reasonable relationship between M&M expenditures required by the MSHCP and the inventory of land conserved for habitat, even if planned costs for either M&M or acquisition vary from the estimates provided in this analysis; and
- ♦ Identify an appropriate inflation adjustment and recalculate the fee annually for each Local Permittee to adopt.

# 1. Introduction

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This chapter provides background the development projections used in this analysis, the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) and the Local Development Mitigation Fee (LDMF).

The original LDMF was enacted by the legislative bodies of the County of Riverside and the Cities of Cathedral City, Coachella, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs and Rancho Mirage between February 2008 and March 2008 with the LDMF becoming effective upon issuance of the federal permit (the "Permit") on October 1, 2008. Although a member of the Coachella Valley Association of Governments, the City of Desert Hot Springs voted to not participate in the MSHCP in 2006 and is not currently a Local Permittee.

In response to changes in program revenues, costs, and projections of development since the LDMF was first adopted, the Coachella Valley Conservation Commission (CVCC) has decided to update the LDMF program and its funding plan.

This study presents the technical documentation required to update the LDMF. For the agencies to impose an updated LDMF, this analysis recognizes the following changes in key program assumptions:

- ♦ Land acquisition for the Reserve System that occurred since late 2006 has reduced the amount of acreage the CVCC must acquire in future years.
- ♦ Land price estimates have been adjusted to reflect the CVCC's recent transactional experience and priority acquisition locations in the short run, and updated market study values in the long run.
- ♦ Near term estimates of annual land development have been revised downward to reflect actual development patterns in the Coachella Valley and the constraints of current market conditions.
- ♦ The Eagle Mountain Landfill is no longer considered a source of revenue.
- ♦ The City of Desert Hot Springs has begun the process of amending the MSHCP so that the city will be a Local Permittee. Because the MSHCP has not been amended and approved by the Wildlife Agencies, this analysis includes primary calculations based on development projected for the Valley net of growth that will occur in Desert Hot Springs. An alternative scenario shows the likely reduction in the per acre LDMF amount once the calculations incorporate the participation of the city in the MSHCP.

## Habitat Conservation Planning Process

Beginning in 1994 local, state, and federal agencies responsible for regulating development and protecting habitat in the Coachella Valley participated in an extensive and comprehensive planning process. This planning effort has produced the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (MSHCP). The California

Department of Fish and Game issued the Natural Community Conservation Plan (NCCP) Permit for the MSHCP on September 9, 2008. The U.S. Fish and Wildlife Service issued the Permit for the MSHCP on October 1, 2008.

The MSHCP allows the loss of natural communities and taking of species incidental to development and infrastructure projects, provided the mitigation and other measures set forth in the MSHCP are satisfied.

The policy objectives of the MSHCP are to:

- (1) Conserve adequate habitat in an unfragmented manner for the effective preservation of Covered species and conserved natural communities, and
- (2) Simplify compliance with the California Environmental Quality Act (CEQA), California Endangered Species Act (CESA), Natural Community Conservation Planning Act (NCCP), Federal Endangered Species Act (FESA), National Environmental Policy Act (NEPA), and other laws by providing an efficient and streamlined regulatory approach. The agencies that participated in the MSHCP include:
  - ♦ Local government - cities in the Coachella Valley, Riverside County, and five special districts<sup>5</sup>;
  - ♦ Regional agencies - Coachella Valley Association of Governments (CVAG);
  - ♦ State agencies - California Department of Transportation (Caltrans), California Department of Parks and Recreation, Coachella Valley Mountains Conservancy (CVMC)<sup>6</sup> and California State Department of Fish and Game (CDFG); and
  - ♦ Federal agencies - U.S. Fish and Wildlife Service (USFWS), U.S. Bureau of Land Management, U.S. Forest Service, and National Park Service.<sup>7</sup>

Implementation of the MSHCP will reasonably mitigate the impacts on Covered Species and conserved natural communities from Covered activities including new development and associated public infrastructure projects in the Coachella Valley.

## MSHCP and the Incidental Take Permit

Completion of the MSHCP enabled the CDFG and USFWS (Wildlife Agencies) to grant a Permit for the Take of Covered Species.<sup>8</sup> Permittees are the local governments in the Coachella Valley

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<sup>5</sup> In addition to Riverside County, local agencies include the cities of Cathedral City, Coachella, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage, as well as the Coachella Valley Water District, Imperial Irrigation District, Riverside County Flood Control and Water Conservation District, Riverside County Regional Parks and Open Space District, and Riverside County Waste Resources Management District.

<sup>6</sup> CVMC prepared the MSHCP under contract to CVAG, and will also be a Permittee.

<sup>7</sup> BLM, U.S. Forest Service, and National Park Service are cooperative partners in the MSHCP but did not sign the Implementing Agreement.

listed above (Local Permittees) and the three state agencies (excluding CDFG) listed above (State Permittees). "Covered Species" include species that are endangered, threatened, of special concern, or otherwise covered by the MSHCP. "Conserved natural communities" refers to those natural communities protected under the MSHCP pursuant to the Natural Community Conservation Planning Act of 2002.

This type of permit is often referred to as an "Incidental Take Permit" in that it enables the Permittee to engage in an otherwise lawful activity that, as an attendant impact, causes the loss of Covered Species. The Permit also allows limited take of habitat and species for scientific purposes, also known as "scientific take".

The Permit enables the Permittees to allow or engage in activities (Covered Activities) that result in the loss of Covered Species and the conserved natural communities without implementing mitigation requirements beyond those required by the MSHCP. For example, local governments are able to approve new development and the state will be able to construct highway infrastructure in the Coachella Valley. As long as the Permittees remain in compliance with the MSHCP, they are able to conduct these types of activities without developing and implementing additional project-specific mitigation measures with respect to the Covered Species and conserved natural communities, except as may be required by the MSHCP.

The CVCC is a joint powers authority created to implement the MSHCP. Failure to adequately implement the MSHCP, such as not acquiring the lands necessary to protect habitat (described below), could result in the Wildlife Agencies suspending or revoking the Permit.

## Local Development Mitigation Fee

The first requirement of the MSHCP is the establishment and ongoing monitoring and management of a Reserve System of lands to provide habitat for Covered Species and the conserved natural communities. Much of this MSHCP Reserve System already exists. Portions of the Reserve System will be established through Complementary Conservation efforts and contributions by state and federal agencies. Substantial lands remain to be purchased from private landowners to complete the Reserve System as part of the Permittees' mitigation. The Local Permittees are responsible for these habitat acquisition actions and associated monitoring and management programs.

The LDMF imposed on new development projects is a primary source of funding for the habitat acquisition program and the monitoring and management program under the MSHCP. This report documents the legal and policy basis to support the adoption by local agencies in the Coachella Valley of the LDMF, a type of development impact fee under California Government Code Section 66000 *et seq.* The fee would be adopted by Coachella Valley cities and the County of Riverside and collected from new development under their jurisdiction within the Plan Area.

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<sup>8</sup> The permit was granted by USFWS under the *Federal Endangered Species Act*, Section 10(a), and by CDFG under the *California Natural Community Conservation Planning Act*, California Fish and Game Code Section 2835.

The LDMF is necessary for the following two reasons:

- 1) **Local Permittees Must Uphold the MSHCP's Implementing Agreement (IA).** The IA, signed by Local Permittees in October of 2007, defines the roles and responsibilities of Permittees and provides a common understanding of the actions that will be undertaken to implement the MSHCP. For each local government agency to receive incidental take authority for Covered Species, the Wildlife Agencies require that the Local Permittees identify sufficient funding for implementation of the MSHCP. The Cities are also required to adopt an ordinance imposing the Local Development Mitigation Fee.
- 2) **Proposed Development Must Mitigate its Impacts to Covered Species.** Development projects with direct, indirect, or cumulative impacts to Covered species or critical habitat are able to mitigate those impacts with payment of the LDMF. Because the LDMF supports the completion of the MSHCP's Reserve System and associated M&M activities in perpetuity, the LDMF mitigates for the project's direct, indirect, and cumulative impacts to habitat and Covered Species under CEQA.

By creating a region-wide habitat conservation program, developers and local land use agencies are able to rely on the payment of the fee as mitigation for certain habitat impacts and can avoid a time consuming and costly process to receive incidental take authority on a project-by-project basis. Implementation of the MSHCP, including the establishment, monitoring, and management of a Reserve System, provides a comprehensive approach to mitigate such impacts for new development throughout the Coachella Valley. In addition, the MSHCP provides a basis for mitigating the impacts to Covered Species and conserved natural communities associated with the development of public infrastructure necessary to serve new development.

Without the Permit, new development approved by a local government in the Coachella Valley would face a significant constraint because projects would seek separate approval from the wildlife agencies before proceeding. Project-by-project regulatory approval for habitat mitigation would add substantially to the time and cost of the development process.

## 2. Plan Area Land Use

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This chapter describes the boundaries of the area covered by the MSHCP (the “Plan Area”), existing land use, and estimates of growth within the Plan Area.

### Plan Area Boundaries

The Coachella Valley is a broad, low elevation, northwest-southeast trending valley comprising the westernmost limits of the Sonoran Desert. The Valley is located in the central portion of Riverside County, approximately 100 miles east of Los Angeles.

The Plan Area encompasses the Coachella Valley and the surrounding mountains up to the ridgeline. The Plan Area extends west to Cabazon where it is bounded by the range line common to Range 1 East and Range 2 East. This is approximately the limit of the Sonoran or Colorado Desert in the San Geronio Pass area. To the east the Plan Area extends to the range line common to Range 13 East and Range 14 East. Either the ridgeline of the Little San Bernardino Mountains or the boundary line with San Bernardino County where the ridgeline extends north of the county line defines the northern boundary. On the south, either the ridgeline of the San Jacinto and Santa Rosa Mountains or the boundary line with San Diego or Imperial Counties forms the Plan Area boundary.

### Existing Land Use

The Plan Area comprises approximately 1.1 million acres, an amount that excludes Indian reservation lands not subject to the MSHCP. **Table 2.1** summarizes the existing acreage within the Plan Area by land use. The acreage indicated as Urban and Rural in the table corresponds to the Developed Areas shown in Figure 1. The MSHCP Reserve System will be composed of much of the Open Space, Public and Private Conservation Lands plus some Public and Private Non-Conservation Lands to be acquired with funding from the LDMF and other sources. Indian Reservation lands are not subject to the MSHCP, reducing the total area covered by the MSHCP to approximately 1.1 million acres.

**Table 2.1: Plan Area Existing Land Use**

	<b>Total Acres</b>	<b>Percent of Plan Area</b>
Urban	67,400	5.9%
Rural, Rural Residential	12,500	1.1%
Agriculture	84,900	7.5%
Lake (includes Salton Sea) <sup>1</sup>	43,500	3.8%
Reservoir <sup>2</sup>	800	0.1%
Wind Energy Uses	4,400	0.4%
Quarry	900	0.1%
Landfill	400	0.0%
Public and Private Non-Conservation Lands <sup>3</sup>	320,600	28.2%
Open Space-Public and Private Conservation Lands <sup>4</sup>	<u>601,000</u>	<u>52.9%</u>
 Total Area Covered By Plan	 1,136,400	 100.0%
Indian Reservation Lands (Not Covered By Plan)	<u>69,600</u>	
 Total Plan Area	 1,206,000	

Note: Land use estimates above are current as of 2007.

<sup>1</sup> Includes Salton Sea and other natural water bodies.

<sup>2</sup> Includes Lake Cahuilla, Whitewater River recharge ponds, and other artificial water bodies.

<sup>3</sup> Includes private lands which are primarily undeveloped and public lands used for non-conservation purposes. Public lands are owned by Riverside County, County Flood Control, Metropolitan Water District, the State Lands Commission, cities, U.S. Army Corps of Engineers, Coachella Valley Water District, U.S. Bureau of Reclamation, and the U.S. military.

<sup>4</sup> Includes public lands dedicated to open space and conservation purposes and private lands owned by land trusts or conservation organizations, or protected by a conservation easement or deed restriction.

Source: Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan; Willdan Financial Services

## New Development within the Plan Area

With the assistance of data developed by CVAG staff, an estimate was made for the total amount of new development anticipated within the Plan Area. These projections are used by this analysis to allocate habitat acquisition and M&M program costs to new development and to calculate the Local Development Mitigation Fee (see Chapter 4).

### Planning Horizon

This analysis uses a 75-year planning horizon (2009 to 2083) to estimate future growth and assumes that the LDMF could be discontinued after that time. This analysis also assumes a 45-year land acquisition program followed by a 30-year fee collection period to fully fund an endowment that supports M&M in perpetuity.

The 75 year planning horizon was selected to match the permit term for Incidental Take Permits. One of the goals of the MSHCP was to acquire all necessary habitat for conservation in as little time as practical within the timeframe of the planning horizon. The habitat acquisition portion of the MSHCP was originally anticipated to occur within 30 years. However, the rate of development

has significantly slowed, and several major sources of revenue, in particular the Eagle Mountain Open Space Trust, have become unavailable to the CVCC.

Both factors limit the CVCC in acquiring habitat according to its original timeline. Accordingly, this analysis adjusts the land acquisition period to 45 years.

The selection of a planning horizon is consistent with legal requirements for the issuance of incidental take permits that allow the take of Covered Species in the course of otherwise lawful activities such as land development. The MSHCP will, to the maximum extent practicable, minimize and mitigate the impacts of this take and provide for conservation of Covered Species.

#### ***Evaluation of a Buildout Planning Horizon***

If habitat acquisition and M&M costs were spread across all new development through build out of the Plan Area then the Local Permittees would not fully fund the MSHCP until construction of “the last home” in the Coachella Valley. Because the rate of growth slows as buildout approaches, the time horizon for buildout could extend beyond 75 years given recent development trends and the amount of land available for development.<sup>9</sup> This period of time is not a practicable planning horizon for the following reasons:

- ♦ *Permit Compliance:* The habitat acquisition program and establishment of an M&M endowment should be accomplished within a reasonable period of time. If either objective is not achieved before expiration of the Permit, the Wildlife Agencies could determine that the Permittees are not fully funding their obligations under the MSHCP and therefore are not in compliance with the Permit. Non-compliance would constrain economic development within the region by requiring each development project to separately mitigate habitat impacts.
- ♦ *Land acquisition cost inflation:* Acquiring land sooner rather than later will reduce total costs by limiting the impact of land price inflation. Land, particularly residential land, often increases in price faster than the average price inflation of all goods and services as development in a region intensifies. Consequently, early funding of the habitat acquisition program will reduce the total real (inflation-adjusted) cost of the program.
- ♦ *Lost Conservation Opportunities:* Given current development pressure, if land acquisition is not completed within the first 45 years, development within the conservation areas could impede establishment of the Reserve System.

A 75-year planning horizon was selected given these considerations. The 75-year horizon is longer than most facility financing plans because most planned development functions at a smaller scale and funds public infrastructure for a smaller increment of growth than the MSHCP. The 75-year approach also does not unfairly burden near-term development with the entire cost of the program because it spreads costs over such an extended (75-year) period.

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<sup>9</sup> The amount of undeveloped land available for development is defined by land use policies contained in the existing General Plans of cities and the County within the Plan Area.

In sum, a 75-year planning horizon, by being reasonable, conservative, and flexible ensures that the Permittees can provide the maximum practicable funding and benefit from compliance with the Permit through fully funding of the MSHCP.

### **Growth Projections**

Growth projections for the 2007 Nexus Study were based on an analysis of actual development patterns in the Plan area between 1989 and 2010, using data from the California Department of Resources Farmland Mapping and Monitoring Program (FMMP). The 2007 Nexus Study update used an estimate of acres developed per year based on historical development during the period of 1989 to 2004 for the Plan Area. Based on this analysis, CVAG then estimated that the rate of development in the Plan Area excluding Indian Reservation land has averaged 1,370 acres per year.

### ***New Information***

For this analysis, the development assumptions for Coachella Valley, including the City of Desert Hot Springs, are based on both the estimates of residential dwelling units and commercial square feet developed annually by agencies collecting the Transportation Uniform Mitigation Fee (TUMF) and data from FMMP. Development data from 1995 to 2006 was selected in order to capture real estate data from the trough year of 1995 to the peak year of 2006.

This data selection is done in anticipation that cycles like this will occur throughout the lifetime of the LDMF; the average developed acreage calculated in this study captures development through boom and bust years.

Based on this approach, the revised long term rate of growth for the jurisdictions subject to the fee is 1,750 acres per year.

The current General Plans of the Coachella Valley cities and the County of Riverside have sufficient undeveloped land zoned for urban uses within the Plan Area to accommodate this level of development. As economic conditions affecting real estate development have persisted, this analysis reduces development projections for the first eight to twelve years of the planning horizon.

### ***A Scenario for a New Permittee***

This analysis also recognizes that the City of Desert Hot Springs has begun the process of amending the MSHCP so that the city will be a Local Permittee. Because the MSHCP has not been amended and approved by the Wildlife Agencies, this analysis first presents the LDMF if based on growth projections that exclude all development in the City of Desert Hot Springs. An alternative calculation for the LDMF assumes that the MSHCP is amended so that all future development in the city is subject to the LDMF.

Development data for the City of Desert Hot Springs indicates that the City has held between 6 and 10 percent of growth in the Coachella Valley. Accordingly, the LDMF is first shown using estimates of annual developed acreage reduced by a midpoint market share for the City of 8 percent each year (see Table A-1 for the development schedule in detail).

Based on this approach, the revised long term rate of growth for the jurisdictions subject to the LDMF is 1,750 acres less 8 percent, or 1,610 acres. In the next ten years of the Plan, projected annual development slowly increases to 1,610 acres but does not surpass this amount.

### 3. Need for Habitat Conservation

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Identifying the MSHCP Reserve System was the result of an extensive and comprehensive analysis conducted by an inter-agency planning team and led by CVAG. The planning team used the best scientific and commercial data available to develop the MSHCP and define activities supporting acquisition of the Reserve System, followed by monitoring and management of Reserve System lands in perpetuity. This chapter describes how the planning team originally identified lands to include in the MSHCP Reserve System.

#### Habitat Conservation Goals

The MSHCP was developed to achieve the following habitat conservation objectives:

- ♦ Represent native ecosystem types or natural communities across their natural range of variation in a system of conserved areas.
- ♦ Maintain or restore viable populations of the species included in the MSHCP so that incidental take permits can be obtained for currently listed species and non-listed species can be covered in case they are listed in the future.
- ♦ Sustain ecological and evolutionary processes necessary to maintain the viability of the natural communities and habitats for the species included in the MSHCP.

These three goals were used to guide the development of the MSHCP Reserve System.

A fourth objective of the MSHCP is to manage the system adaptively to be responsive to short-term and long-term environmental change.

The management activities required to achieve all four habitat conservation goals will continue in perpetuity and will be funded by earnings from an endowment after the expiration of the Permit. The MSHCP obligates Permittees to establish an endowment to fund these activities in perpetuity for acquired lands. The LDMF will fund a portion of these costs. The endowment is also funded by contributions from state and local agencies and revenue associated with landfill tipping fees and interest earnings on the endowment's year to year balance.

#### Covered Species and Natural Communities

The planning team developed an initial list of 52 species to consider protecting under the MSHCP. These species were identified as either endangered or threatened by the Wildlife Agencies, or at risk for becoming listed as threatened or endangered. Through the planning process this list was reduced to 27 Covered Species. Species were eliminated from the final list for reasons such as a lack of known locations in the Plan Area and insufficient data to facilitate conservation planning. **Table 3.1** lists the 27 Covered Species and identifies the reason for their inclusion in the MSHCP.

The Plan Area contains 46 natural communities. The 27 natural communities included in the MSHCP Reserve System are those needed to provide habitat for the Covered Species. **Table 3.2** lists the natural communities protected by the MSHCP Reserve System.

**Table 3.1: Covered Species Under the MSHCP**Plants

Mecca aster, *Xylorhiza cognata* (NS)  
 Coachella Valley milkvetch, *Astragalus lentiginosus* var. *coachellae* (FE)  
 Triple-ribbed milkvetch, *Astragalus tricarlinatus* (FE)  
 Orcopia sage, *Salvia greatae* (NS)  
 Little San Bernardino Mountains linanthus, *Linanthus maculatus* (or *Gilia maculata*) (NS)

Invertebrates - Insects

Coachella Valley giant sand-treader cricket, *Macrobaenetes valgum*  
 Coachella Valley Jerusalem cricket, *Stenopelmatus cahuilaensis*

Fish

Desert pupfish, *Cyprinodon macularius* (FE/SE)

Amphibians

Arroyo toad, *Bufo californicus* (FE/CSC)

Reptiles

Desert tortoise, *Gopherus agassizii* (FT/ST)  
 Flat-tailed horned lizard, *Phrynosoma mcallii* (CSC)  
 Coachella Valley fringe-toed lizard, *Uma inornata* (FT/SE)

Birds

Yuma clapper rail, *Rallus longirostris yumanensis* (FE/ST/SFP)  
 California black rail, *Laterallus jamaicensis* (ST/SFP)  
 Burrowing owl, *Athene cunicularia* (CSC)  
 Southwestern willow flycatcher, *Empidonax traillii extimus* (SE/FE)  
 Crissal thrasher, *Toxostoma crissale* (CSC)  
 Le Conte's thrasher, *Toxostoma lecontei* (CSC)  
 Least Bell's vireo, *Vireo bellii pusillus* (FE/SE)  
 Gray vireo, *Vireo vicinior* (CSC)  
 Yellow warbler, *Dendroica petechia brewsteri* (CSC)  
 Yellow-breasted chat, *Icteria virens* (CSC)  
 Summer tanager, *Piranga rubra* (NS)

Mammals

Southern yellow bat, *Lasiurus ega* or *xanthinus* (NS)  
 Coachella Valley round-tailed ground squirrel, *Spermophilus tereticaudus chlorus* (CSC)  
 Palm Springs pocket mouse, *Perognathus longimembris bangsi* (CSC)  
 Peninsular bighorn sheep, *Ovis canadensis nelsoni* (FE/ST/SFP)

Note: Species conservation information above current as of 2007.

## Key:

FE: Federal Endangered  
 FT: Federal Threatened  
 SE: State Endangered  
 ST: State Threatened  
 SC: State Candidate  
 SFP: State Fully Protected

CSC: Species of Special Concern (a state list of species that are at risk)

NOS: No Official Status (USFWS, CDFG, and the Scientific Advisory Committee that assisted in preparing the MSHCP recommend inclusion of these species because of the probability of their being placed on an official list.

Source: Coachella Valley Association of Governments, *Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan*, Table 3-1.

**Table 3.2: Natural Communities Included in the MSHCP**

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Active desert dunes  
Stabilized and partially stabilized desert dunes  
Active desert sand fields  
Ephemeral desert sand fields  
Stabilized and partially stabilized desert sand fields  
Stabilized shielded desert sand fields  
Mesquite hummocks  
Sonoran creosote bush scrub  
Sonoran mixed woody and succulent scrub  
Mojave mixed woody scrub  
Desert saltbush scrub  
Desert sink scrub  
Chamise chaparral  
Redshank chaparral  
Semi-desert chaparral  
Interior live oak chaparral  
Cismontane alkali marsh  
Coastal and valley freshwater marsh  
Southern arroyo willow riparian forest  
Sonoran cottonwood-willow riparian forest  
Mesquite bosque  
Desert dry wash woodland  
Desert fan palm oasis woodland  
Southern sycamore-alder riparian woodland  
Arrowweed scrub  
Mojavean pinyon-juniper woodland  
Peninsular juniper woodland and scrub

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Note: Natural communities list current as of 2007.

Source: Coachella Valley Association of Governments, *Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan*, Table 3-3.

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## Identifying the MSHCP Reserve System

The MSHCP planning team collected information on each Covered Species' life history, habitat, ecological requirements, overall range, distribution, threats, and conservation needs. The team gathered similar information on the composition and distribution of natural communities and on existing conservation areas, topography, watersheds, ecological processes, roads, and current land uses. The team then had maps prepared of the natural communities and species' habitat distribution. These maps became the basis of for identifying lands with the highest biological resource value to include in the Reserve System.

For each Covered Species for which sufficient information was available, core habitat areas were delineated with unfragmented habitat that contained intact ecological processes large enough for self-sustaining populations of species. Areas needed to maintain essential ecological processes, core habitat, biological corridors, and linkages were also identified. The following measures of

adequacy were used to determine the habitat necessary to preserve Covered Species and the conserved natural communities and identify lands to be included in the MSHCP Reserve System.

- ♦ *Size of habitat patches.* For each Covered Species, the planning team assessed whether a conservation area provided core habitat. The Core Habitat concept was not applied to species that were considered to occur as metapopulations. These species are the burrowing owl, Le Conte's thrasher, Yuma clapper rail, California black rail, riparian bird species, and southern yellow bat. A conservation area was not deemed inadequate because of the lack of core habitat for these species. The concept of core habitat was not used with natural communities.
- ♦ *The number of core habitat areas protected in conservation areas for each Covered Species.* Where possible, the planning team sought to conserve a minimum of three core habitat areas for each Covered Species. In some cases, more than three core habitat areas for a Covered Species occurred in the conservation areas. In other instances, fewer than three core habitat areas for a Covered Species occurred in the Plan Area.
- ♦ *Representative range of environmental conditions, including temperature, moisture, and elevation gradients, under which the species or natural community occurs in a viable population.* For each Covered Species, the planning team assessed whether the conservation areas included other conserved habitat that provided for the conservation of the range of environmental conditions in which the species occurs in the Plan Area.
- ♦ *Essential ecological processes.* These could include hydrological processes (both subsurface and surface), blowsand movement, erosion, deposition, substrate development, soil formation, and biological processes such as reproduction, pollination, dispersal, and migration. The planning team assessed the conservation areas to evaluate whether the essential ecological processes necessary to sustain the Covered Species and the conserved natural communities present were included in the conservation areas.
- ♦ *Biological corridors and linkages.* For each Covered Species, the planning team assessed whether connectivity of the population in each conservation area was maintained with populations in other conservation areas and to populations outside the Plan Area to the maximum extent feasible.

## Identifying Impacts to Habitat

While the planning process resulted in the identification of an MSHCP Reserve System of 723,480 acres, habitat for each Covered Species can include additional areas within the 1.1 million acres subject to the Plan.<sup>10</sup> Impacts to this habitat, including direct, indirect, and

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<sup>10</sup> As set forth in the MSHCP, development may occur on a maximum of 22,420 acres of the Reserve System. In addition, development that is consistent with maintaining certain conservation objectives is also allowed within 7,800 acres designated as fluvial sand transport areas.

cumulative impacts, from land use decisions made by local governments are addressed by CEQA among other state and federal laws. A direct impact to habitat for a Covered Species results from the construction of new residential, nonresidential, and public uses on lands containing habitat value, or whenever habitat is modified to reduce its suitability for the Covered Species.

Aside from direct impacts, development on lands in the Plan Area without habitat value for any Covered Species can produce indirect impacts on Covered Species as well. New residential, nonresidential, and associated public uses on land without habitat values economically support developed uses on lands that either have or had habitat value for Covered Species. Examples include normal development patterns that allow proximate residential development to support retail development, employment development to support additional housing, and public infrastructure to support all types of private development.

These market support relationships cross from lands containing habitat for Covered Species into lands with no habitat value and vice versa. As a result, all new developed acres in the Coachella Valley have direct or indirect impacts on Covered Species.

Development of lands containing habitat and lands that do not contain habitat are part of the cumulative impacts on Covered Species. Cumulative impacts include the impact of existing development on former and current acres of natural communities. Cumulative impacts also include noise, lighting, drainage, intrusion of people into habitat areas, and the introduction of non-native plants and non-native predators such as dogs and cats.

In addition to satisfying obligations of the IA and funding a Reserve System that benefits residents of the community, the LDMF provides a means of mitigating the cumulative impact of an estimated 110,170 acres of new development in the Plan Area on Covered Species between 2011 and 2083.

## 4. Cost of MSHCP Activities

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This chapter describes the cost of the land acquisition and M&M programs and presents the plan for completing the program during the 75-year planning horizon. The land acquisition and M&M programs occur concurrently because monitoring of Covered Species and natural communities guides habitat acquisition objectives as the MSHCP progresses. Both sets of activities help mitigate the direct, indirect and cumulative impacts of take that occurs with development.

The LDMF must address the costs associated with both land acquisition and M&M programs in order to support the full conservation effort. If no new development occurred within the Plan Area then there would be no take of Covered Species' habitat and no need for conservation of habitat lands and careful monitoring and management of potentially threatened species and natural communities. Thus, new development is solely responsible for and benefits entirely from these costs.

### Allocation of the LDMF

One objective of this analysis is to demonstrate that funding is available to cover the total costs associated with acquisition of land, land preparation, and M&M activities. This analysis organizes the costs associated with habitat acquisition and land preparation, as well as non fee revenues dedicated to these activities, into a Land Acquisition Fund. Costs associated with M&M activities, as well as non fee revenues dedicated to these activities, are organized in the M&M Fund.

The Land Acquisition and M&M Funds account for the year to year activity of the habitat acquisition, monitoring and management components of conservation. In addition to these activities, the MSHCP specifies that "The Local Permittees shall establish an endowment to fund the Monitoring and Management Programs for those [conserved habitat] lands in perpetuity."<sup>11</sup>

Even though funding to acquire land must be complete before the expiration of the Permit term, the Local Permittees maintain possession of conserved habitat, as well as the obligation to continue conservation in perpetuity per the MSHCP. As a result, a funding mechanism must be established to ensure that enough funding has been received to continue the M&M programs after year 75 of the planning horizon. This analysis organizes the sources and uses of these funds into an Endowment Fund.

This analysis is based on a financial model constructed to estimate annual revenues and costs for the Land Acquisition Fund, Monitoring & Management Fund and Endowment Funds. The model was used to calculate the level of the LDMF needed to fully fund the habitat acquisition and M&M programs after deducting other anticipated revenues and interest earnings on the fund balances. Implementation of the MSHCP includes other costs such as land management, habitat monitoring, and administration that are in addition to the habitat acquisition program. The LDMF

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<sup>11</sup> MSHCP Section E.S.6: Obligations of the Permittees, p. ES-18.

contributes to the funding of these costs; the mechanism by which this occurs is discussed in detail below.

LDMF revenue is allocated among three funds, each of which supports different aspects of the conservation program. All LDMF revenue and habitat acquisition expenditures are accounted for in the Land Acquisition Fund, the Monitoring & Management Fund or the Endowment Fund. CVCC manages the funds as part of its responsibilities to implement the MSHCP. The funds, whether functioning as one accounting fund or several subfunds, enable the CVCC to comply with a provision of the Fee Mitigation Act described in Chapter 6 that requires development impact fees to be placed in a separate fund.

Before year 45, LDMF revenue that directly supports M&M is only allocated to the M&M Fund. After year 45, portions of LDMF revenue are dedicated to both the M&M Fund and to the creation of an Endowment Fund that will support M&M after year 75. The endowment fulfills the obligation of the Local Permittees set out in the MSHCP.

Permittees would continue collecting LDMF revenue through year 75 but the CVCC would terminate the Land Acquisition Fund after 45 years.

## Habitat Acquisition Program

**Table 4.1** presents a summary of the land acreage that will comprise the MSHCP Reserve System described in the previous chapter. Of the 1.1 million acres in the Plan Area, 745,900 acres will be preserved as habitat. Seventy-eight percent or 561,700 acres of the Reserve System has already been set aside. Complementary Conservation and state and federal contributions to MSHCP implementation will conserve an additional 59,680 acres from November 2006 forward.

The remaining amount of 102,100 acres includes 10,800 acres of non-Permittee public and quasi-public land, and 7,800 fluvial sand transport areas where acquisition is not required. Approximately 7,500 acres is Permittee-owned land that will be conserved in perpetuity through the MSHCP.

There are now 86,580 acres remaining in that total after transactions that closed through December 31, 2010. The LDMF is the primary funding source for this habitat acquisition program.

Another key objective of the LDMF Program is the purchase of all habitat conservation lands as soon as financially feasible within 45 years. Given the current development pressure, if land acquisition is not completed within the first 45 years, important resources may become developed, or surrounded by new development to the extent that the land may become isolated and unsuitable habitat.

The following sections describe the habitat acquisition revenues and expenditures included in this analysis.

**Table 4.1: MSHCP Reserve System**

	<b>Acres</b>
Conservation Areas Total	745,900
Potential Development Within Conservation Areas	<u>22,420</u>
MSHCP Reserve System Total	723,480
Existing Conservation Lands (as of June 2006) <sup>1</sup>	<u>561,700</u>
Land to be Conserved (as of June 2006)	161,780
Future Complementary Conservation (as of June 2006)	28,180
State and Federal Contribution To Plan Implementation (as of June 2006)	20,700
Conservation of Lands Owned By Non-permittee Public or Quasi-Public Entities <sup>2</sup>	<u>10,800</u>
Conserved Land Not Responsibility of Local Permittees	<u>59,680</u>
Remaining Lands to Be Conserved By Local Permittees	102,100
Local Permittee Responsibility	
Conservation of Existing Local Permittee Lands <sup>3</sup>	7,500
Conservation of Fluvial Sand Transport Area <sup>4</sup>	<u>7,800</u>
Subtotal Local Permittee Responsibility	<u>15,300</u>
Balance to be Acquired By Local Permittees at Time of Permit Issuance	86,800
Balance to be Acquired By Local Permittees, December 2010	86,580

Note: Estimates of land in conservation areas are from different dates and have been combined into one table. Minor inconsistencies may remain.

<sup>1</sup> Lands set aside for conservation purposes and owned by federal, state, and local agencies and non-profit organizations..

<sup>2</sup> Lands currently owned by entities such as local utilities that the MSHCP estimates will be conserved through the regulatory process as those entities seek approval to conduct various activities on their lands.

<sup>3</sup> Lands currently owned by Local Permittees that they will set aside for conservation.

<sup>4</sup> Lands that, through land use regulation, will be required to maintain their natural function as fluvial sand transport areas.

Source: Coachella Valley Association of Governments, *Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan*, Table 4-1.

## Revenues

### **Local Development Mitigation Fee Revenue**

LDMF revenue would provide the majority of funding for the habitat acquisition program. The fee generates revenue by multiplying the per acre fee by the estimated acres of new development. The fee is assumed to increase at 3.29 percent annually. The inflation rate of 3.29 percent per year is based on the average annual change in the Consumer Price Index (CPI) for the Los Angeles-Riverside-Orange County Metropolitan Statistical Area (MSA) from 1984 to 2009.

The inflation rate of 3.29 percent is a long run average estimate of general costs in the economy, and the actual increase will be based on the provisions of Permittee fee ordinances regarding automatic updating of the fee and other jurisdiction-specific LDMF actions as implementation proceeds.

Once all land acquisition has been completed in year 45, the only MSHCP costs that remain are M&M and administrative costs required to continue the program through year 75 and after expiration of the Permit. The M&M activities that occur after habitat acquisition is complete will evaluate the efficacy of conservation by studying Covered Species and natural communities inhabiting conserved habitat. The findings that emerge from monitoring research may require management measures taken to preserve habitat in conserved areas to adapt to changing circumstances. The LDMF will be adjusted to generate revenues sufficient to fund these costs in years 46 through 75.

Actual fee levels may vary depending on the frequency of LDMF updates in response to changes in the rate of development and the price of land, among other variables. The MSHCP requires that a new Nexus Study be completed at least every five years.

#### ***Regional Road Project Mitigation***

Measure A is a half-cent sales tax approved by Riverside County voters to fund transportation projects. From Measure A funds, \$30 million are dedicated to fully mitigate the direct, indirect, and cumulative effects of transportation projects on the Covered Species and the conserved natural communities. Of this amount \$21,819,000 will be contributed to the Land Acquisition Fund, and the remaining \$8,181,000 million will be deposited into the Endowment Fund.

#### ***Regional Infrastructure Mitigation***

This revenue source is generated by two public agencies in connection with mitigation of infrastructure projects. The first agency is the Coachella Valley Water District (CVWD). CVWD is anticipated to acquire 550 acres for the MSHCP Reserve System in the Thousand Palms Conservation Area. The acquisition would mitigate habitat impacts of the Thousand Palms Flood Control Project and is estimated to cost \$10.5 million.

This acquisition is anticipated to occur in the early years of the MSHCP. The cost estimate is based on the current average market value per acre for the Thousand Palms area of \$15,700 (see discussion and table under Expenditures - Land Acquisition, below). The CVWD will also have contributed a total of \$4.0 million as payment to the CVCC for participation in the MSHCP over the lifetime of the LDMF; this contribution will be part of the program Endowment.

The second agency is the California Department of Transportation (Caltrans). Caltrans has an obligation to acquire 5,791 acres of habitat to mitigate non-interchange highway projects in the Coachella Valley. For the purposes of the Nexus Study, Caltrans is assumed to acquire 1,930 acres in plan years 8 and 10, and 1,931 acres in year 15.

Acquisition costs per acre are assumed to be the same average cost for all acquired acres in the year of acquisition. The actual phasing of the funding for this obligation by Caltrans on an annual basis is not material to the calculation of the LDMF, because the mitigation is based on a given amount of acreage to be acquired, not on a specific amount of revenue to be contributed.

#### ***Interest Earnings***

The *Mitigation Fee Act* requires that interest earnings on development impact fee revenues be credited to the same fund in which the fees are deposited and expended for the same purposes. This analysis assumes a long term interest rate of 5.73 percent on fund balances, a rate

approximately equal to the 1984-2009 average interest rate for Pooled Money Investment Accounts (PMIA) reported by the California State Treasury. This fund is a proxy for the type of investment vehicle CVCC must use to preserve fund balances for the benefit of MSHCP objectives.

## Expenditures

### **Land Acquisition**

Estimates for the price of land to be acquired by Permittees vary by the location of each conservation area in the Valley. Per acre prices used in this analysis are based on the CVCC's recent experience with land acquisition, as well as an independent study that relied on current sales and listings of comparable properties (*A Market Study of Land Values, Related to Several Areas of Prospective Acquisition, Associated with the Coachella Valley Multiple Species Habitat Conservation Plan*, Scarcella, June 2010).

The study estimated low, mid, and high range market values per acre for each of 20 conservation areas within the Plan Area. Estimates were made of the percentage of land to be acquired at each market level in each conservation area. These costs exclude transaction costs (see below). **Table 4.2** on the following page details land acquisition amounts and undiscounted (nominal dollar) purchase costs by conservation area within the MSHCP Reserve System.

Analysis of this data uses a number of cost estimates per acre multiplied by acres acquired to estimate total costs for each year of MSHCP. Average per acre costs include related transaction costs for appraisals, escrow fees, and other costs that are estimated to be approximately five percent in addition to the land purchase price. The calculation of the average costs per acre used in this analysis, including transaction costs in 2010 dollars are shown in **Table 4.3**. Table 4.2 informs the price per acre for acres to be acquired after acres designated high priority by the CVCC. The CVCC's criteria for setting land acquisition priorities are described below.

The Nexus Study bases its assumptions for land cost on the recent land purchasing patterns and long term strategies adopted by the CVCC. In the short run, the CVCC has identified the following areas as its highest acquisition priorities:

- ♦ Thousand Palms Conservation Area
- ♦ Upper Mission Creek Conservation Area
- ♦ Coachella Valley Stormwater and Delta Conservation Area
- ♦ Willow Hole Conservation Area
- ♦ East Indio Hills Conservation Area.

Prioritization is based on how vulnerable natural habitat is in the area, the degree of threat development poses to existing habitat or species and the extent to which the proportion of developed to conserved land, or "Rough Step" has been satisfied in the area.

The areas identified above contain some of the highest priced land in the Plan Area. The CVCC has been purchasing high priority land in these areas at an average of approximately \$9,610 per acre. Table 4.2 above shows that this figure is roughly compatible with the average price per acre in high-priced areas reported by the June 2010 Market Study of Land Values.

The Nexus Study assumes that the first 22,000 acres purchased by the CVCC during the lifetime of the LDMF will be purchased in these areas, and carries this price assumption forward until the first 22,000 acres of conservation land are purchased. This analysis estimates that the CVCC will have purchased its first 22,000 of high priority land before year 30 of the planning horizon.

**Table 4.2: Modified MSHCP Reserve System Local Permittees Land Acquisition Costs**

No.	MSHCP Designation	Priority	Acres <sup>1</sup>	\$ Per Acre	Total Cost
<u>Priority Areas</u>					
2	Stubbe & Cottonwood Canyons	1	1,705	\$ 5,250	\$ 8,949,938
3	Snow Creek / Windy Point	1	1,018	1,365	1,390,116
5	Highway 111 / I-10	1	358	7,550	2,703,353
6	Whitewater Floodplain	1	2,082	5,450	11,344,175
7	Upper Mission Creek/Big Morongo Cyn	1	5,117	8,885	45,462,146
8	Willow Hole	1	2,392	9,813	23,471,500
9	Edom Hill	1	1,185	7,781	9,223,349
10	Thousand Palms	1	4,995	15,700	78,421,500
19	CV Stormwater Channel & Delta	1	2,651	9,688	25,680,303
Total			21,503		\$ 206,646,380
<b>Priority Areas Average Price per Acre</b>					<b>\$ 9,610</b>
<u>Non-Priority Areas</u>					
1	Cabazon	2	2,806	\$ 1,175	\$ 3,296,968
4	Whitewater Canyon	2	78	1,081	84,770
11	West Deception Canyon	2	557	1,343	747,987
12	Indio Hills / Joshua Tree NP Linkage	2	2,088	4,325	9,029,865
13	Indio Hills Palms	2	1,525	1,706	2,601,229
14	East Indio Hills	2	1,014	3,925	3,980,343
15	Joshua Tree National Park	2	12,140	419	5,083,654
16	Desert Tortoise and Linkage	2	39,283	906	35,600,119
17	Mecca Hills / Orocopia Mountains	2	20,151	644	12,972,406
18	Dos Palmas	2	10,456	603	6,299,445
20	Santa Rosa & San Jacinto Mtns	2	33,052	2,875	95,025,276
Total			123,150		\$ 174,722,062
<b>Non-Priority Average Price per Acre</b>					<b>\$ 1,419</b>

Note: Transaction costs for appraisals, escrow fees, and related costs not included.

<sup>1</sup> Acres reflect acres actually available for conservation purchase by the CVCC.

Source: Scarcella, *A Market Study of Land Values, Related to Several Areas of Prospective Acquisition, Associated with the Coachella Valley Multiple Species Habitat Conservation Plan, June 2010*.

**Table 4.3: Land Acquisition and Transaction Costs**

	<u>Actual</u>		<u>Land Acquisition Period</u>		<u>Total</u>
	2009	2010	2011-2038 <sup>1</sup>	2039-2053	
Average Cost Per Acre (\$2010) Transaction Costs <sup>2</sup>	\$ 9,159 5.00%	\$ 10,071 5.00%	\$ 9,610 5.00%	\$ 1,419 5.00%	
Total Land Cost per Acre Acres Purchased	\$ 9,617 150	\$ 10,574 1,100	\$ 10,091 21,175	\$ 1,490 65,673	88,098

<sup>1</sup> Timeframe in which CVCC purchases its first 22,000 priority acres in high priced areas.

<sup>2</sup> Includes costs for appraisals, escrow fees, and related transaction activities.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

After the CVCC purchases 22,000 acres of high priority land, the CVCC may purchase and conserve parcels in less developed and less costly areas. This analysis assumes that the price of the remaining acreage will equal the average cost of low priority acreage shown in Table 4.2.

The Nexus Study assumes that land acquisition costs will increase at 3.29 percent annually during the 50-year acquisition period, resulting in the larger cost estimate in nominal dollars shown in Appendix Table A-2, which summarizes the Land Acquisition Fund. This real estate inflation factor of 3.29 percent per year is based on a more general proxy for changes in prices: the average annual change in the Consumer Price Index (CPI) for the Los Angeles-Riverside-Orange County Metropolitan Statistical Area (MSA) from 1984 to 2009. The period chosen extends beyond the prior decade in order to capture a data series for a long term average.

Table 4.3 shows the land cost per acre assumptions used in this study for each stage of land acquisition in the planning horizon. This analysis adds a 5 percent premium to the price of land in an effort to account for escrow fees and other expenses that arise in the process of purchasing land. Land costs per acre for Fiscal Years 2009 and 2010 are actual values based on CVCC records. The CVCC expects to update this analysis periodically based on new land appraisal studies.

This analysis includes an estimate of the amount of land acquired on an annual basis over the 45-year acquisition period. The analysis assumes that as much land as possible is acquired as early as possible subject to revenue constraints. To supplement LDMF revenues, regional road project and infrastructure mitigation payments provide revenue through year 18 of the MSHCP.

These phasing assumptions meet the "Rough Proportionality" requirements of the MSHCP regarding the amount of habitat land conserved compared to the amount of development that occurs. Actual land acquisition costs may turn out to be more or less than these estimates. Land price inflation may also vary from the rate assumed here.

Costs would be lower to the extent that land is protected through methods other than fee simple purchase, such as conservation easements. CVAG will conduct land market appraisals and adjust the rate of increase in the LDMF discussed in the revenue section above to mirror actual cost trends and ensure that total revenues do not exceed total costs within the Land Acquisition Fund.

### ***Land Preparation***

Land preparation consists of one-time capital costs to render the land usable for intended conservation purposes. These costs primarily include the removal of an invasive species such as the Saharan mustard, and fencing. Other costs include gates, signage, and trash removal. Ongoing maintenance costs are not included. The cost of land preparation is based on a baseline 2010 assumption of \$188,000 per year, and is increased by 3.29 percent annually for inflation<sup>12</sup>. Costs terminate at the end of the 50-year acquisition period.

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<sup>12</sup> MSHCP Section 5.3, Table 5-3c, p. 5-24.

**Administration**

The CVCC will contract with CVAG for staff services for the first five years of MSHCP implementation and may continue to do so thereafter if desired. Total administration costs for all MSHCP implementation activities are estimated to be \$600,640 annually, on average. This amount would fund management, accounting, information technology, and related overhead costs. These amounts are based on actual expenditures made by the CVCC in Fiscal Years 2009 and 2010.

Administration costs also include \$127,000 annually, on average, for a contract Land Acquisition Manager funded solely by the Land Acquisition Fund. Fiscal Years 2009 and 2010 reflect costs adjusted for current economic pressures. This analysis assumes that the Land Acquisition Manager will be restored to a full time position as the economy recovers. All administration costs are increased 3.29 percent annually for inflation. Administration costs associated with the Land Acquisition Fund terminate at the end of the 45-year acquisition period.

**Table 4.4** summarizes total revenues, expenditures, and other assumptions for the Habitat Acquisition Program, in nominal dollars. This analysis assumes that Local Permittees will begin to impose the updated LDMF on new development during most of fiscal year 2011-2012 (FY2012).

The summary below shows the 2010 value of revenues, expenditures, and fund balance, made or accumulated through 2083. The Land Acquisition Fund is assumed to terminate 43 years later in plan year 45 or 2053. See **Tables A-1 through A-6** in the Appendix for the cash flow detail.

**Table 4.4: Summary of Land Acquisition Revenues and Expenditures**

	<b>FY2012-2083</b>
<b><u>Revenues</u></b>	
Local Development Mitigation Fee Revenue <sup>1</sup>	\$ 276,919,000
CVAG - Measure A	4,626,000
Caltrans	31,398,000
CVWD	8,919,000
Contributions	-
Grants	-
Other	-
Interest Earnings	20,538,000
Total Revenues	<u>\$ 342,400,000</u>
<b><u>Expenditures</u></b>	
Land Acquisition	\$ 314,726,000
Land Preparation	8,156,000
<b><u>Administration</u></b>	
Land Acquisition Manager (contract)	5,316,000
Administration (program-wide share)	9,585,000
Total Expenditures	<u>\$ 337,783,000</u>
Net Cashflow	\$ 4,617,000
<b>Ending Fund Balance</b>	<b>\$ -</b>

Note: In constant dollars. Table represents present value of total program revenues collected and expenditures made by year 75. Values have been rounded to nearest thousand.

<sup>1</sup> Denotes the portion of total LDMF revenue assigned to land acquisition, land preparation and associated activities.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

## Monitoring and Management Program

The MSHCP identifies an M&M program as a key element of the conservation effort. According to the MSHCP, the M&M program is designed to

- (1) Demonstrate that the Plan is achieving its Conservation Goals and Objectives for the Covered Species and conserved natural communities;
- (2) Specify the primary components of Reserve Lands management; and

- (3) Identify how Adaptive Management strategies will be used to address changes in Habitat condition, natural communities and/or species health (distribution and numbers)<sup>13</sup>

The costs and revenues associated with this part of the conservation process are summarized in the M&M Fund and described in this chapter.

A portion of the LDMF is allocated to the M&M Fund. The M&M Fund also includes non fee revenues dedicated to M&M activities and program costs for M&M programs specified in the MSHCP.

The most prominent non-fee revenue source is the Conservation Trust Fund, whose landfill tipping fee allocations amount to \$36.5 million over the life of the Permit. The CVCC plans to fund all M&M expenses for activities affecting lands other than Permittee conserved lands using revenue from the Conservation Trust Fund. In addition, if the agency has carryover M&M expenses from land acquired before revisions to the LDMF, costs which can be termed existing deficiencies, revenue from the Conservation Trust Fund will be more than sufficient.

This policy will ensure that new development, through payment of the LDMF, does not fund any M&M activities required by the MSHCP if those activities relate to existing deficiencies in M&M programs or lands not acquired by the Permittees.

These revenues and costs are summarized in Table 4.7 as a program level summary of monitoring and management costs. Detailed components of M&M program costs are detailed in Tables A-4 and A-5.

The following sections describe the revenues and expenditures associated with the monitoring and management component of the LDMF.

## Revenues

### ***Local Development Mitigation Fee Revenue***

The LDMF contributes nearly \$100.2 million to the M&M program throughout the 75 year Permit term. Year to year, the LDMF is designed to cover the M&M expenses remaining to be funded once Conservation Trust Fund (see below) revenues are exhausted in a given year. After land acquisition is complete, the LDMF is re-set to collect sufficient revenue to fund annual M&M expenses and contribute to the Endowment for M&M activities. This role of the LDMF is discussed in greater detail below, in the *Funding M&M Costs in Perpetuity* section of this analysis.

### ***Conservation Trust Fund***

The Conservation Trust Fund consists exclusively of Landfill Tipping Fees paid by the producers of waste generated in the Coachella Valley and deposited in County landfills. The CVCC provided the actual amounts of revenue received in this category for FY 2009 and 2010. In the future, Landfill Tipping Fee revenue is projected to rise at the rate of inflation starting in year 3 and continuing through year 75.

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<sup>13</sup> MSHCP E.S.8: MSHCP Reserve Lands Management and Monitoring, p. ES-31.

## Expenditures

### **Monitoring Program**

The Monitoring Program refers to the biological habitat monitoring and assessment program associated with the MSHCP. The MSHCP states that the role of the Monitoring Program is to

Provide scientifically reliable data on:

- (1) The status and spatial and temporal dynamics (amplitude and magnitude) of key ecosystem components for the Covered plant and animal Species and conserved natural communities, and
- (2) The threats to these species and conserved natural communities. The program will also identify, develop, [and] evaluate the extent to which management practices and policies are sustaining the plant and animal species and conserved natural communities covered under the Plan.<sup>14</sup>

The MSHCP states that the Monitoring Program will be implemented in phases starting with the collection of baseline data (The Baseline Phase) and extending to a long term species and natural communities monitoring program.

Fulfilling these objectives requires employment of several biological scientists, GIS analysts, field researchers and the equipment associated with each employee. **Table 4.5** breaks out the baseline cost assumptions for the Monitoring Program. All personnel and programs below represent expertise in fields relevant to the Covered Species or natural communities identified in the MSHCP or expertise in mapping, field equipment or surveillance. Estimates for the cost of each personnel type, program and piece of equipment were provided by the CVCC.<sup>15</sup>

The sum of these expenditures for each year amounts to the total Monitoring Program expenditure identified in the M&M Fund (see Table A-6). Note that some of the costs identified in Table 4.5, such as the graduate research and sheep monitoring program, do not persist throughout the 75 year planning horizon.

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<sup>14</sup> MSHCP Section E.S.8: MSHCP Reserve Lands Management and Monitoring: Monitoring Program, p. ES-31.

<sup>15</sup> MSHCP Section 8.8.2: Personnel for Monitoring Program, p. 8-106

**Table 4.5: Monitoring Program Baseline Costs**

<b>FY Ending June 30</b>	<b>FY2011 Expenditures</b>
<u><i>Personnel - All Species except sheep</i></u>	
Monitoring Program Admin (1)	\$ -
Vertebrate Ecol - Field Supervisor (1)	96,100
Entomologist (1 @ 0.5)	42,700
Associate Biologist (1)	85,300
Biologist - Mammalogy (1@0.5)	37,400
Biologist - Ornithology (1-2@0.5)	74,700
Seasonal Aide - Ornithology (1@0.5)	16,000
Seasonal Aide (4-5@0.75)	120,000
<u><i>Personnel - Sheep and Trails</i></u>	
Seasonal Aide (3@0.75)	\$ 72,000
Graduate Researcher	24,000
<u><i>Sheep - Monitoring</i></u>	
Personnel	\$ 53,300
<u><i>Personnel - Data Analysis</i></u>	
GIS Analyst (1 @ 0.5)	\$ 42,700
GIS Technician (1 @ 0.5)	37,400
Personnel Subtotal	\$ 701,600
<u><i>One-time Cost Items</i></u>	
Revise/Update Natural Communities Map	\$ -
<u><i>Equipment and Supplies</i></u>	
Satellite/Aerial Imagery	\$ 3,100
Sampling Gear	16,000
Transect Set-up & Maintenance	5,400
Radio-tracking Equipment	600
Other Supplies	1,000
Weather Stations (3)	200
Vehicle Costs	19,600
Sheep Monitoring	69,300
Sheep Monitoring/Research	51,200
Equipment Subtotal	\$ 166,400
Subtotal - Estimated Cost	\$ 868,000
10% Contingency	\$ 86,800
Monitoring Program Cost	\$ 955,000

Note: In constant dollars. Costs change throughout the planning horizon as staffing levels change. See Table A-4. 2011 costs have been adjusted from the 2003 base using an annual inflation assumption of 3.29%.

Source: Coachella Valley Mountain Conservancy; Willdan Financial Services.

**Management Program**

The MSHCP states that:

The goal of the Management Program, including Adaptive Management actions, is to provide for the Conservation of Covered Species as anticipated by the Plan. To accomplish this goal requires on-going management activities on reserve lands such as fencing and fence maintenance, public use management, enforcement of appropriate laws and regulations, and the implementation of other actions identified in the reserve management plans.<sup>16</sup>

To perform the functions outlined above, the management Program requires management and enforcement personnel, as well as various types of equipment needed to protect and maintain habitat in and out of the field. The Management Program consists of land management and supervision personnel and field staff. Expenditures in this category include funding for land management personnel as well as habitat maintenance equipment and supplies. This includes a Ranger-warden for conservation lands, associated field staff and office personnel and equipment for the program headquarters<sup>17</sup>. Baseline expenditures for the Management Program are outlined in Table 4.6.

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<sup>16</sup> MSHCP Section E.S.8: MSHCP Reserve Lands Management and Monitoring: Management Program, p. ES-33

<sup>17</sup> MSHCP Section 8.8.1 Personnel for Management Program, p. 8-96

**Table 4.6: Management Program Baseline Costs**

<b>FY2011 Expenditures</b>		
<i><u>Personnel</u></i> <sup>1</sup>		
Reserve Land Manager	\$	96,300
Asst. Reserve Manager (4) <sup>2</sup>		80,200
Ranger-Warden (2)		187,800
Field Crew Labor (contract)		42,200
Admin. Assistant (0.25-0.5) <sup>2</sup>		14,900
Personnel Subtotal	\$	421,400
<i><u>Equipment and Supplies</u></i>		
Site Protection & Maintenance	\$	26,600
Habitat Maintenance and Land Preparation		4,100
Field Equipment and Supplies		14,400
Office Equipment		41,200
Public Education Services		5,900
Equipment Subtotal	\$	92,200
Subtotal - Estimated Cost	\$	513,600
10% Contingency	\$	51,360
Administrative Overhead (10%)	\$	51,360
Total - Estimated Cost	\$	616,000

Notes: In constant dollars.

<sup>1</sup> This salary includes benefits, worker' compensation.

<sup>2</sup> These positions are phased in as the number of acres acquired increases.

Source: Coachella Valley Mountain Conservancy; Willdan Financial Services.

### ***Adaptive Management***

The Management Program adopts an Adaptive Management strategy. The Adaptive Management Program will address management uncertainty, including the following issues:

- (1) Management action as responses to findings of the Monitoring Program in regards to unanticipated changes, in the needs of individual species, groups of species, or conserved natural communities, including fluvial and aeolian transport and sorting of sand;
- (2) Reserve and species management techniques and actions;
- (3) Enhancement of the conservation values of lands in the Conservation Areas; and

- (4) Management actions to address Changed Circumstances, linking the Monitoring Program with Adaptive Management actions to inform reserve managers of the status of Covered Species, conserved natural communities, and essential ecological processes in a manner that provides data to allow informed management actions and decisions. Existing information about both the impact of threats and the management strategies for addressing those threats will be used extensively in designing the initial management program for each Conservation Area.<sup>18</sup>

### **Management Contingency**

The MSHCP requires the Local Permittees to fund a \$5,000,000 management contingency as part of the M&M program in order to “provide ability to address immediate and/or large scale M&M Program needs on Permittee lands”<sup>19</sup>. The MSHCP specifies that this contingency fund should be established within the first ten years of the planning horizon. The guideline for use of these funds is as follows:

This fund shall be used when monitoring results and/or other information indicate that corrective actions to address these management priorities are needed to achieve the goals and objectives for Covered Species.<sup>20</sup>

Accordingly, the Monitoring & Management Fund in this analysis includes an annual \$500,000 contingency each year for the first ten years of the planning horizon. This provision amounts to a \$5,000,000 contingency by the end of the planning horizon.

### **Administration**

Program wide administration costs for the LDMF include several types of administrative overhead for MSHCP-related programs. Administrative expenses associated with the CVCC's implementation of the MSHCP consist of legal, accounting, and other departmental and agency-wide administrative support; and LDMF administrative costs include revenue collection, revenue and cost accounting, mandated public reporting, and fee justification analyses.

### **Endowment and LDMF Support for the Monitoring & Management Fund**

The foregoing revenue section shows that the Conservation Trust Fund is the only source of non-fee revenue dedicated specifically to M&M programs. Even in the near term, the Conservation Trust Fund does not accumulate enough revenue in order to fund the year to year operations of the M&M Fund on its own. To avoid year to year shortfalls in the M&M programs, this analysis dedicates sufficient LDMF and Endowment revenues to fund Monitoring and management activities in the following ways:

- ♦ As a first priority, this analysis uses Endowment Fund revenues to support M&M activities in years 1 to 45 of the planning horizon. During years 1 through 45, the

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<sup>18</sup> MSHCP Section E.S.8: MSHCP Reserve Lands Management and Monitoring: Adaptive Management, p. ES-35.

<sup>19</sup> MSHCP Section 8.2.4.2: Management Contingency Fund, p.8-26.

<sup>20</sup> MSHCP Section 8.2.4.2: Management Contingency Fund, p.8-26.

Endowment Fund transfers one-half of its fund balance to the M&M Fund every year in which fund balance is available.

- ♦ As a second priority, this analysis allocates a variable portion of the LDMF to the M&M Fund throughout the lifetime of the LDMF. The amount of LDMF revenue that the M&M Fund is to receive is calculated to equal the shortfall that would otherwise occur in the management, monitoring, administration and contingency expenses detailed above net of endowment revenues transferred in a given year. This ensures that the portion of LDMF revenue allocated to M&M activities can never exceed the cost of programs detailed in Table 4.7 and prevents over-collection of the fee.
- ♦ As a third priority, the LDMF gradually contributes revenue toward a full endowment that can sustain of M&M costs in perpetuity. The method for this step is discussed in detail below.

#### ***Funding M&M Costs in Perpetuity***

This analysis recognizes that, because the MSHCP specifies that the Local Permittees are responsible for funding M&M activities in perpetuity, M&M costs will occur after the expiration of the Permit. Since existing sources of revenue for habitat acquisition, including the LDMF, expire with the Permit, sufficient revenues must be collected in years 1 through 75 to fund M&M activities after the expiration of the Permit term.

The total amount of revenue required to yield sufficient interest was calculated using a long term averaged public funds yield assumption of 5.73 percent per year, and total M&M expenses in year 75 of approximately \$2 million. The rate of 5.73 percent is approximately equal to the 1984-2009 average interest rate for Pooled Money Investment Accounts (PMIA) reported by the California State Treasury. The size of the endowment required to yield sufficient revenues for this purpose is approximately \$36.5 million.

After land acquisition is complete in year 45, the LDMF is reset in order to contribute enough revenue every year in years 46-75 to reach the target revenue above. This revenue is the LDMF allocated to the Endowment Fund and fulfills the Permittees' obligation to establish an Endowment Fund to support M&M activities in perpetuity per the MSHCP. The total amount contributed from the LDMF over the planning horizon is \$23.9 million; this amount is equivalent to an annual contribution of approximately \$800,000 each year over 30 years. The remainder of contributions to endowment is comprised of interest earnings.

**Table 4.7** summarizes the revenues and expenditures associated with the M&M Fund in constant dollars. Table 4.7 is based on an assumed annual inflation rate of 3.29 percent, and shows the discounted sum of revenues and expenditures across the 75-year period. Table 4.7 also shows the LDMF contribution to the endowment. Since these are not deposited into the M&M Fund until after the end of the planning horizon, this amount is shown separately from the balanced revenues and expenditures.

**Table 4.7: Summary of Monitoring and Management Program Revenues and Expenditures**

FY2012-2083	
<u>Revenues</u>	
Landfill Tipping Fees	
Conservation Trust Fund	\$ 36,500,000
Eagle Mountain Open Space Trust	-
Other Revenues	-
Transfer From Endowment	17,911,000
Local Development Mitigation Fee Revenue <sup>1</sup>	100,218,000
Interest Earnings	7,000
Total Revenues	\$ 154,636,000
<u>Expenditures</u>	
Monitoring Program	\$ 63,394,000
Management Program	54,408,000
Adaptive Management	4,777,000
Management Contingency	4,341,000
Administration (program-wide share)	27,841,000
Total Expenditures	\$ 154,761,000
Net Cash Flow	\$ (125,000)
Ending Fund Balance	\$ -
LDMF Contribution to Endowment <sup>2</sup>	\$ 23,860,000

Note: In constant dollars. Table represents present value of total program revenues collected and expenditures made by year 75. Values have been rounded to nearest thousand.

<sup>1</sup> Denotes the portion of total LDMF revenue assigned to Management and Monitoring activities.

<sup>2</sup> This is the total value of transfers made from the LDMF to the Endowment Fund to ensure that the Endowment Fund will have sufficient balance to fund the Monitoring and Management expenditures listed above after Year 75.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

**Table 4.8** shows the share of total revenues represented by each individual revenue source detailed in Tables 4.4 and 4.7. The majority of funding for all activities in the MSHCP comes from the LDMF.

**Table 4.8: Summary of Program-Wide Future MSHCP Revenues**

<b>FY2012-2083</b>	<b>Land Acquisition</b>	<b>Share of Revenues</b>	<b>Monitoring and Management</b>	<b>Share of Revenues</b>
<u>Revenues</u>				
Landfill Tipping Fees				
Conservation Trust Fund	\$ -	0.0%	\$ 36,500,000	23.6%
Eagle Mountain Open Space Trust	-	0.0%	-	0.0%
Other Revenues	-	0.0%	-	0.0%
Transfer From Endowment	-	0.0%	17,911,000	11.6%
Local Development Mitigation Fee Revenue	276,919,000	80.9%	100,218,000	64.8%
CVAG - Measure A	4,626,000	9.2%	-	0.0%
Caltrans	31,398,000	1.4%	-	0.0%
CVWD	8,919,000	2.6%	-	0.0%
Contributions	-	0.0%	-	0.0%
Grants	-	0.0%	-	0.0%
Interest Earnings	20,538,000	6.0%	7,000	0.0%
Total Revenues	\$ 342,400,000	100.0%	\$ 154,636,000	100.0%

Note: In constant dollars. Table represents present value of total program revenues collected through year 75.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

**Table 4.9** uses the share of available revenues represented by the LDMF to estimate how much of each MSHCP expenditure is funded by the LDMF.

**Table 4.9: Summary of Program-Wide LDMF Allocation, FY2012-2083**

<b>Expenditure Category</b>	<b>Expenditures</b>	<b>Portion Funded by LDMF</b>
<b><u>Land Acquisition</u></b>		
Land Acquisition	\$ 314,726,000	\$ 254,537,000
Land Preparation	8,156,000	6,596,000
<b><u>Administration</u></b>		
Land Acquisition Manager (contract)	5,316,000	4,299,000
Administration (program-wide share)	9,585,000	7,752,000
Total Expenditures	\$ 337,783,000	\$ 273,184,000
Approximate LDMF Share <sup>1</sup>		80.9%
<b><u>Monitoring Program</u></b>		
Monitoring Program	\$ 63,394,000	\$ 41,085,000
Administration (program-wide share)	13,906,022	9,012,000
Total Expenditures	\$ 77,300,022	\$ 50,097,000
<b><u>Management Program</u></b>		
Management Program	54,408,000	35,261,000
Adaptive Management	4,777,000	3,096,000
Management Contingency	4,341,000	2,813,000
Administration (program-wide share)	13,934,978	9,031,000
Total Expenditures	\$ 77,460,978	\$ 50,201,000
Approximate LDMF Share <sup>1</sup>		64.8%
<b>Grand Total</b>	<b>\$ 492,544,000</b>	<b>\$ 373,482,001</b>
Average Share Funded by LDMF		75.8%

Note: In constant dollars. Table represents present value of total program expenditures through Plan Year 75.

<sup>1</sup> Represents a 72 year averaging of fee contributions to major program categories and not a strict accounting allocation from a particular funding source.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

## 5. Cost Allocation and Fee Schedule

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This chapter describes the fee schedule per acre of development during and after the period of habitat acquisition in years 1 through 45.

### Acreage Subject to the Fee

The MSHCP applies to development occurring anywhere in the Plan Area, with limited exceptions. This section defines which land is exempt from the fee, and then explains the direct, indirect, and cumulative impacts to Covered Species from land development in the Plan Area.

#### **Exemptions**

Certain development projects that were already in progress at the time the Permit was issued will be exempted from the LDMF. Projects are exempt from paying the fee only if the project meets each of the following three conditions:

- (1) Completion of required infrastructure improvements including, but not limited to, underground utilities, exterior project area walls, streets and curbs and were issued at least one building permit for a discrete primary structure, such as a single family home, prior to October 1, 2008 (date of MSHCP Permit Approval).
- (2) Continuous construction activity since October 1, 2008 as demonstrated by issuance of a building permit for a discrete primary structure and/or a certificate of occupancy permit for a discrete primary structure in each six month period between October 1, 2008 and April 1, 2011.
- (3) City registration of the Project and proposed lots to be exempted, in accordance with CVCC procedures.

Approximately 1,300 residential lots, or an estimated 260 acres of development, are expected to receive exemptions from the LDMF. This exempt development is expected to occur between FY2012 and FY2016.

In addition, some projects that made a separate payment to mitigate impacts on endangered species habitat will receive a refund of a portion of their LDMF payment. The amount refunded is assumed to have LDMF revenue impacts equivalent to a full exemption for approximately 100 acres of development. The refunds are expected to be granted between FY2012 and FY2021. **Table 5.1** summarizes the assumptions for the refunded fees and exemptions that will be granted over the next ten years.

**Table 5.1: LDMF Exemptions and Refunds**

<i>Exemptions for In-Progress Lots</i>	
Exempt Lots	1,300
Average Lot Size (acres) <sup>1</sup>	0.224
Exempt Acreage	291
Buildout of Exempt Lots (years) <sup>2</sup>	5
Acreage of Exemptions per Year	58
<i>Fees Refunded for Alternative Mitigation Payments</i>	
Equivalent Exempt Acreage <sup>3</sup>	100
Buildout of Development Receiving Refunds (years) <sup>4</sup>	10
Acreage of Exemptions per Year	10

**Notes:**

<sup>1</sup> The average lot size matches the historical lot size for residential uses between 0 and 8 units per acre. Actual exemptions may differ from this range of densities. A lower density is chosen to conservatively estimate reductions in fee revenue.

<sup>2</sup> Assumes exempt lots will be developed at an even rate per year between FY2012 and FY2016.

<sup>3</sup> Acreage of exemptions that would have an equivalent revenue impact to expected fee refunds for alternative mitigation payments.

<sup>4</sup> Assumes area subject to a refund will be developed at an even rate between FY2012 and FY2021.

Source: Coachella Valley Association of Governments.

***Direct, Indirect, and Cumulative Impacts***

The cost of the habitat acquisition program is allocated to new development on vacant or partially vacant land within the Plan Area (see Chapter 2). The amount of new development anticipated during the Permit's life is first adjusted to exclude development that was already in progress on the effective date of the MSHCP. The above section on exemptions provides the criteria that define whether a project was already in progress on the MSHCP's effective date. No other exemptions apply.

All vacant or partially vacant land that is subject to the fee, when developed, has direct, indirect, or cumulative effects on Covered Species. Normal development patterns allow residential development to support retail development, employment development to support additional housing, and public infrastructure to support all types of private development. These types of relationships between land uses link or connect development on lands with zero habitat value with development on lands having significant habitat value.

As a result, any vacant or partially vacant land subject to the fee, once developed, has a direct or indirect impact on Covered Species. Combined with the impacts of existing development, new development also has cumulative impacts on Covered Species.

**Table 5.2** lists the Covered Species and the natural communities that may be found on vacant or partially vacant land in urban areas on the valley floor. When habitat conversion takes place anywhere there is an overall loss to habitat quantity and the quality of the remaining occupied or potential habitat is degraded because these areas may become even more isolated and impede species movement. Thus, all development has a direct, indirect and/or cumulative impact on the loss of habitat for the Covered Species.

**Table 5.2: Covered Species and Natural Communities Found In Urban Areas**

Covered Species	Natural Communities
<u>Invertebrates - Insects</u>	Active desert dunes
Coachella Valley giant sand-treader cricket, <i>Macrobaenetes valgum</i>	Active desert sand fields
Coachella Valley Jerusalem cricket, <i>Stenopelmatus cahuilaensis</i>	Ephemeral desert sand fields
<u>Reptiles</u>	Stabilized and partially stabilized desert sand fields
Flat-tailed horned lizard, <i>Phrynosoma mcallii</i>	Stabilized shielded desert sand fields
Coachella Valley fringe-toed lizard, <i>Uma inornata</i>	Mesquite hummocks
<u>Birds</u>	Sonoran creosote bush scrub
Burrowing owl, <i>Athene cunicularia</i>	Sonoran mixed woody and succulent scrub
Crissal thrasher, <i>Toxostoma crissale</i>	Desert saltbush scrub
Le Conte's thrasher, <i>Toxostoma lecontei</i>	
<u>Mammals</u>	
Coachella Valley round-tailed ground squirrel, <i>Spermophilus tereticaudus chlorus</i>	
Palm Springs pocket mouse, <i>Perognathus longimembris bangsi</i>	

Source: Coachella Valley Mountain Conservancy.

## Fee Schedule

The LDMF is based on the net revenue requirements for the land acquisition, administration and monitoring and management activities of the MSHCP. As discussed above in Chapter 4 (*Expenditures - Land Acquisition*) for years 1 through 45, revenue requirements are based on Land Acquisition Fund expenditures net of revenue from regional road project mitigation, regional infrastructure mitigation and interest earnings, as well as monitoring and management program requirements net of Conservation Trust revenues and non fee Endowment transfers. For years 46 through 75 revenue requirements are based on the year to year funding requirements of M&M activities and the ultimate cost of the MSHCP's monitoring and management activities after year 75.

New development will pay the LDMF over the remainder of the 75 year life of the Permit, representing 109,779 developed acres. Each newly developed acre has a similar proportionate impact by causing direct, indirect, and cumulative impacts on species and existing or potential habitat and natural communities. New development also causes a need for and benefits from the installation of public infrastructure, which also impacts habitat.

***Fee Without Desert Hot Springs in Plan***

**Table 5.3** presents the fee per developed acre for the land acquisition program before and after land acquisition is complete. The amount per acre of \$5,600 in 2011-2053 is based on the total revenues required for land acquisition, administration and monitoring and management in those years. Increased at 3.29 percent annually, this is the net revenue needed to fund land acquisition costs through year 45.

**Table 5.3: Fee per Acre**

	2011-2053	2054-2083
Fee per Acre <sup>1</sup>	\$ 5,600	\$ 1,418
Total Acres Developed <sup>2</sup>	61,603	48,300
Local Development Mitigation Fee Revenue	\$ 344,976,800	\$ 68,489,400

Note: Local Development Mitigation Fee revenue rounded to thousands.

<sup>1</sup> The fee for years 2054-2083 reported in this table is an average fee for this period. Since land acquisition is complete by 2053, the fee for years 2054-2083 is adjusted so that the fee amount is just high enough to cover remaining program costs and no more.

<sup>2</sup> Excludes approximately 360 acres of development that was begun prior to MSHCP Permit approval which will be exempt from the Local Development Mitigation Fee.

Sources: Tables A-1 through A-6; Willdan Financial Services.

In year 46, the fee is adjusted to match the cost of remaining program activities. The LDMF is calculated to cover present M&M costs, as well as contribute to the accumulation of an endowment to allow for perpetual funding of these activities using earned interest. Since the bulk of expenses in the MSHCP are related to land acquisition, the fee falls 75 percent in year 46.

As a result, the MSHCP can fund the mitigation of these impacts with a fee imposed per developed acre. The per acre cost from Table 5.3 provides the basis for the fee schedule. The total fee for a specific project is based on its size as measured in acres. This approach ensures a reasonable relationship between the fee for a specific development project and the impact of that project on the need for habitat protection. Each acre of development has the same impact, and the level of the fee is uniform for all residential and nonresidential uses.

The fee schedule uses the per acre cost shown in Table 5.3 to apply to all nonresidential development projects. Industrial uses include mining and energy projects.

For residential development projects, the fee schedule converts the per acre cost to a cost per dwelling unit based on the density of the project (dwelling units per acre). The mitigation fee is based on average lot size for the three residential categories (0 to 8 units per acre, 8.1 to 14 units per acre, and 14 units and over per acre). To simplify administration of the Coachella Valley LDMF in conjunction with the Western Riverside County DMF, the same density categories and

average lot size assumptions are used for this fee schedule (see *Mitigation Fee Nexus Report for the Western Riverside County Multiple Species Habitat Conservation Plan*).

**Table 5.4** presents the Local Development Mitigation Fee schedule for the MSHCP in 2011 dollars. The table includes the average lot size assumption for each of the residential land use categories. The LDMF would only apply to new development on vacant or partially vacant land. The fee would not apply to development projects such as building additions or renovations that do not enlarge the footprint of development.

**Table 5.4: Fee Schedule**

	Cost Per Acre	Average Lot Size	Fee <sup>1</sup>
<u><i>Residential</i></u>			
0 - 8 Units Per Acre	\$ 5,600	0.224	\$ 1,254
8.1 - 14 Units Per Acre	5,600	0.093	521
14.1+ Units Per Acre	5,600	0.041	230
<u><i>Nonresidential</i></u>			
Commercial	\$ 5,600	NA	\$ 5,600
Industrial	5,600	NA	5,600

<sup>1</sup> Per dwelling unit for residential and per acre for nonresidential land uses.

Source: Table 5.3; Willdan Financial Services

Revenue requirements for the LDMF may vary substantially depending on economic factors discussed in Chapter 4 that affect this analysis. These factors include, for example, land acquisition price inflation, interest rates, and the rate of new development. The proposed fee schedule represents a reasonable approach for allocating mitigation costs as evenly as practicable across new developed acreage. The analysis is constrained by:

- (1) The policy objectives to fund land acquisition as soon as feasible within 45 years; and
- (2) The limited financing options available. Given these considerations, the fee schedule presented here represents a reasonable approach to the fair allocation of costs across all new development.

***Fee with Desert Hot Springs in Plan***

**Table 5.5** shows the cost per acre calculated for development assumptions that include the City of Desert Hot Springs. Development assumptions underlying this calculation are presented in Chapter 2 of this analysis.

**Table 5.5: Fee per Acre, with Desert Hot Springs**

	2011-2053	2054-2083
Fee per Acre <sup>1</sup>	\$ 5,150	\$ 1,304
Total Acres Developed <sup>2</sup>	66,983	52,500
Local Development Mitigation Fee Revenue	\$ 344,962,450	\$ 68,460,000

Note: Local Development Mitigation Fee revenue rounded to thousands. This fee is based on an assumption that the City of Desert Hot Springs represents, on average, 8% of development in the Coachella Valley.

<sup>1</sup> The fee for years 2054-2083 reported in this table is an average fee for this period. Since land acquisition is complete by 2053, the fee for years 2054-2083 is adjusted so that the fee amount is just high enough to cover remaining program costs and no more.

<sup>2</sup> Excludes approximately 360 acres of development that was begun prior to MSHCP permit approval which will be exempt from the Local Development Mitigation Fee.

Sources: Tables A-1 through A-6; Willdan Financial Services.

**Table 5.6** summarizes the fee schedule for an LDMF fee that includes development in the City of Desert Hot Springs.

**Table 5.6: Fee Schedule, with Desert Hot Springs Development**

	Cost Per Acre	Average Lot Size	Fee <sup>1</sup>
<i>Residential</i>			
0 - 8 Units Per Acre	\$ 5,150	0.224	\$ 1,154
8.1 - 14 Units Per Acre	5,150	0.093	479
14.1+ Units Per Acre	5,150	0.041	211
<i>Nonresidential</i>			
Commercial	\$ 5,150	NA	\$ 5,150
Industrial	5,150	NA	5,150

<sup>1</sup> Per dwelling unit for residential and per acre for nonresidential land uses.

Source: Table 5.5; Willdan Financial Services

#### ***Evaluation of Fee Uses in "Without Desert Hot Springs" Scenario***

**Table 5.7** shows the uses of LDMF revenue, assuming a fee calculated without Desert Hot Springs, for the first five years of the program. From 2011 to 2015, approximately 65 percent of LDMF revenue is devoted to habitat acquisition, with the remainder being used to fund monitoring and management activities.

**Table 5.7: LDMF Allocation, 2009-2015**

FY Ending June 30 Plan Year	2009 1	2010 2	2011 3	2012 4	2013 5	2014 6	2015 7
<i>Mitigation Fee Revenue</i>							
New Developed Acres	40	117	125	368	552	644	828
Fee Exempt Acres	-	-	-	68	68	68	68
Acres Subject to Fee	40	117	125	300	484	576	760
Mitigation Fee	\$ 5,730	\$ 5,730	\$ 5,730	\$ 5,600	\$ 5,784	\$ 5,975	\$ 6,171
Local Development Mitigation Fee Revenue	\$ 230,810	\$ 673,242	\$ 714,000	\$ 1,679,000	\$ 2,798,000	\$ 3,440,000	\$ 4,689,000
<i>Allocation by Fund</i>							
Land Acquisition	\$ 230,810	\$ 673,242	\$ 714,000	\$ 242,000	\$ 1,669,000	\$ 2,509,000	\$ 3,268,000
Monitoring & Management	-	-	-	1,437,000	1,129,000	931,000	1,421,000
Total Expenditures	\$ 230,810	\$ 673,242	\$ 714,000	\$ 1,679,000	\$ 2,798,000	\$ 3,440,000	\$ 4,689,000
<i>Share by Fund</i>							
Land Acquisition	100%	100%	100%	14%	60%	73%	70%
Monitoring and Management	0%	0%	0%	86%	40%	27%	30%

Note: See text for explanation of each revenue and cost line item.

Sources: Coachella Valley Association of Governments; Wildan Financial Services.

## 6. *Mitigation Fee Act Findings*

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Development impact fees are one-time fees, typically paid when a building or grading permit is issued, imposed on development projects by local agencies responsible for regulating land use (cities and counties). To guide the widespread imposition of impact fees, the State Legislature adopted the Mitigation Fee Act (the "Act") with Assembly Bill 1600 in 1987 and subsequent amendments. The Act, contained in California Government Code Sections 66000 through 66025, establishes requirements on local agencies for the imposition and administration of impact fee programs. The Act requires local agencies to document five findings when adopting an impact fee.

The five statutory findings required for adoption of the LDMF to fund habitat acquisition and M&M costs under the MSHCP are summarized in this chapter and supported in detail by the body of this report. All statutory references are to the Act.

### Purpose of Fee

For the first finding the agency must:

#### ***Identify the purpose of the fee. (§66001(a)(1))***

The purpose of the LDMF is threefold. First, the LDMF provides a funding source from new development for the acquisition of habitat lands and the monitoring and management of those lands in perpetuity. All three activities mitigate development impacts and carry forward the purposes and objectives of the MSHCP. The LDMF advances a legitimate public interest by funding habitat conservation and maintaining habitat values of Reserve System lands in perpetuity as required by the Implementing Agreement executed by each Permittee.

Second, the conservation actions funded by the LDMF will also construct and maintain a Reserve System that is a valuable community amenity. Residents and visitors to the region will benefit from a system of conserved lands containing native ecosystem types and natural communities in their natural range of variation. Many of the Reserve System lands provide trails and other passive recreational opportunities (e.g. bird watching). Conservation of these and other lands provide the community with scenic vistas and backdrops to developed uses such as residential and visitor serving uses.

Third, fulfillment of the MSHCP also provides a key public service to the Coachella Valley and its prospects for streamlined economic development. The incidental take authority granted by the Permit avoids a time consuming and costly process to determine mitigation for impacts to Covered Species from new development.

### Use of Fee Revenues

For the second finding the agency must:

***Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan as specified in Section 65403 or 66002, may be made in***

***applicable general or specific plan requirements, or may be made in other public documents that identify the public facilities for which the fee is charged. (§66001(a)(2))***

Fees covered by the requirements of the Act are those used to defray all or a portion of the cost of public facilities related to new development. The Act defines public facilities as including “public improvements, public services, and community amenities.” (§66000(d)). LDMF revenue will provide most of the funding necessary to acquire a Reserve System of 86,800 acres of habitat and related costs as a community amenity. Under the MSHCP, this habitat acquisition program provides a comprehensive approach to mitigate the loss of species and habitat caused by all development in the Coachella Valley or adjacent areas.

All habitat acquired with funding from the LDMF will be located within the Conservation Areas. The MSHCP represents the public document referenced in the statute above that adequately identifies the amount, type, and general location of land to be acquired with LDMF funding.

The agencies responsible for implementing the LDMF (including the CVCC among others) will restrict the use of fee revenues to costs associated with the habitat acquisition and M&M programs. These costs include:

- ♦ Land acquisition and related costs such as appraisals and title insurance;
- ♦ Land preparation measures such as fencing to protect habitat from human impacts;
- ♦ M&M costs including adaptive management elements required by the MSHCP; and
- ♦ Administrative costs associated with management of the habitat acquisition and M&M programs.

Each of the above cost elements should bear a reasonable relationship to the inventory of acquired lands. The detailed breakdown of land acquisition and M&M costs to be funded by the LDMF are given in Chapter 4 of this report, *Cost of MSHCP Activities*.

## Benefit Relationship

For the third finding the agency must:

***Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed. (§66001(a)(3))***

All new development within the Coachella Valley will directly or indirectly benefit from the LDMF by funding a comprehensive approach to habitat mitigation. The 86,800 acres to be acquired, monitored, and managed in part with fee revenues are one component of the 723,480-acre MSHCP Reserve System. The MSHCP Reserve System is the preferred alternative representing the area necessary to protect the Covered Species and the conserved natural communities identified in the MSHCP.

Establishment of the MSHCP Reserve System and funding its monitoring and management in perpetuity will mitigate the impacts on Covered Species and conserved natural communities by all new development and associated public infrastructure projects within the Coachella Valley for the term of the Permit. Each type of project leads to the elimination of habitat, whether directly,

indirectly, or as a cumulative effect. Thus, there is a reasonable relationship between the use of LDMF revenue and all types of new residential and nonresidential development throughout the Coachella Valley that will pay the fee. Because the impact is the same for each developed acre, the level of the fee is uniform across all land uses.

LDMF revenue is used to acquire land and conduct monitoring and management activities in perpetuity as required by the IA. Because the Permit provides for incidental take authority, these three actions benefit new development, as described in detail in Chapter 4 of this report, *Cost of MSHCP Activities*.

## Burden Relationship

For the fourth finding the agency must:

***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. (§66001(a)(4))***

All vacant lands in the Coachella Valley, including vacant lands or partially vacant lands in urban areas, represent current or potential habitat for Covered Species and the conserved natural communities identified in the MSHCP. All new development projects on vacant or partially vacant lands regardless of location will have direct, indirect, and/or cumulative impacts on species and existing or potential habitat and natural communities.

New development also causes a need for and benefits from the installation of public infrastructure. Without new development, no further habitat conservation to mitigate for development impacts would be needed in the Plan Area. Therefore, there is a reasonable relationship between the need for habitat conservation and all types of residential and nonresidential development throughout the Coachella Valley that will pay the fee.

The need for habitat conservation, including acquisition of land and monitoring and management of those lands in perpetuity, was determined through the MSHCP planning process using scientific standards. The MSHCP Reserve System includes land necessary to represent a range of native ecosystem types, to maintain or restore viable populations of species, and to sustain ecological and evolutionary process necessary for maintaining the viability of habitats. The MSHCP obligates Permittees to establish an endowment to fund the M&M programs needed by the Reserve System.

Based on these standards, the Reserve System only includes that amount of habitat conservation necessary to mitigate new development impacts. In addition, the funding required to monitor and manage Reserve system lands is the minimum required to establish an endowment capable of funding these activities in perpetuity. Habitat needs are described in more detail in Chapter 3, *Need for Habitat Conservation*.

## Proportionality

For the fifth finding the agency must:

***Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed. (§66001(b))***

New development will pay the LDMF over the remainder of the 75 year Permit, representing 109,779 developed acres. Each newly developed acre has approximately the same proportionate impact by causing the direct, indirect, or cumulative, loss of an acre of habitat for Covered Species and the conserved natural communities. The Permit allows for incidental take authority to be issued for otherwise lawful actions such as new development, provided the mitigation and other measures set forth in the MSHCP are satisfied.

As the LDMF has been designed, habitat acquisition program costs are spread as evenly as practicable across all developed acres. Habitat monitoring and management costs are also spread as evenly as practicable across all developed acres. The LDMF is calculated on a per acre basis and the total fee for a specific project is based on its size as measured in acres. Thus there is a reasonable relationship between the fee for a specific development project and the direct, indirect, or cumulative impact of that project on the need for habitat protection.

The fee schedule uses the per acre cost of the program to apply to nonresidential development projects. For residential development projects, the fee schedule converts the per acre cost to a cost per dwelling unit based on the density of the project (dwelling units per acre).

See Chapter 2, *Plan Area Land Use*, for a description of how new development is determined. See Chapter 5, *Cost Allocation and Fee Schedule*, for a presentation of the mitigation fee schedule.

## 7. Implementation

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This chapter identifies the responsibilities that the CVCC and Local Permittees should fulfill when implementing the LDMF program.

### Adoption of an Updated LDMF by Local Permittees

Each Local Permittee must adopt an updated ordinance or amend an LDMF existing ordinance, and a fee resolution stating the amount of the updated fee. The revised fee ordinance shall become effective 60 days after adoption.

However, updated fees shall not be collected until the 60-day period has been met, whichever date is later. The ordinance should include provisions for an automatic inflation adjustment to the fee. The CVCC could assist in this process by preparing a model ordinance and resolution for the LDMF update for each agency to review.

### Adoption of Administrative Guidelines

The CVCC should work with Local Permittees to develop administrative guidelines for the LDMF program. These guidelines would address, for example:

- ♦ A method for applying the fee to development of partially vacant parcels;
- ♦ Definitions of land use categories; and
- ♦ Transfer of fee revenues to various CVCC funds.

### Programming Revenues and Projects

The CVCC should program fee revenues to its acquisition program and related expenditures. This ensures documentation of a reasonable relationship between new development and the use of mitigation fee revenues.

The CVCC may alter the planned acquisition or related land preparation costs from those shown in this report. However, all expenditures must continue to fund expansion of the inventory of land conserved for habitat under the guidelines of the MSHCP or pay for the other costs set forth above.

For a five-year planning period, the agency should allocate all existing fund balances and projected fee revenue to specific acquisitions or related land preparation measures. The agency can hold funds in an account for longer than five years if necessary to collect sufficient funds to complete the acquisition.

### Annual Inflation Adjustment

The CVCC should identify an appropriate inflation adjustment and recalculate the fee annually for each Local Permittee to adopt. Given that the majority of costs are associated with land prices, the annual inflation adjustment could be calculated either by:

- ♦ Using actual prices per acre for recently purchased habitat; or

- ♦ Providing for an annual CPI adjustment based upon the Consumer Price Index for “All Urban Consumers” in the Los Angeles-Anaheim-Riverside Area, measured as of the month of December in fiscal year immediately prior to the fiscal year that the revised fee will take effect.

Regardless of the calculated annual inflation adjustment, the CVCC should revise the fee accordingly if it appears that total program revenues and costs will not be in balance when the Land Acquisition Fund is terminated. The MSHCP states that the CVCC will update the Nexus Study at least every five years, and more often if deemed necessary, to ensure that the Local Development Mitigation Fee is adequate over the life of the acquisition program to fund the necessary land acquisition and land preparation.

## Reporting Requirements

The CVCC should assist the Local Permittees in complying with the annual and five-year reporting requirements of the *Mitigation Fee Act*. In addition to reporting on revenue and expenditure activity, the agency must identify when the other revenues in addition to the LDMF are anticipated to be available to fund the habitat acquisition program.

# Appendix A: Cash Flow Analysis

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**Tables A-1 through A-6** present the cash flow analysis for the distribution of LDMF revenues, Land Acquisition Fund, the Monitoring and Management Fund and the Endowment Fund. The LDMF was calculated to result in a zero ending fund balance at the end of 50 years.

## List of Tables

**Table A-1:** Table A-1: LDMF Revenue and Allocation (Nominal \$)

**Table A-2:** Land Acquisition Fund (Nominal \$)

**Table A-3:** Endowment Fund (Nominal \$)

**Table A-4:** Monitoring Program Budget (Nominal \$)

**Table A-5:** CVMSHCP Management Program Budget (Nominal \$)

**Table A-6:** Monitoring & Management Fund (Nominal \$)

**Table A-1: LDMF Revenue  
and Allocation (Nominal \$)**

FY Ending June 30 Plan Year	2009 1	2010 2	2011 3	2012 4	2013 5	2014 6	2015 7	2016 8	2017 9	2018 10	2019 11	2020 12	2021 13
<i>Mitigation Fee Revenue</i>													
New Developed Acres	40	117	125	368	552	644	828	1,104	1,104	1,380	1,380	1,380	1,610
Fee Exempt Acres	-	-	-	68	68	68	68	68	10	10	10	10	10
Acres Subject to Fee	40	117	125	300	484	576	760	1,036	1,094	1,370	1,370	1,370	1,600
<i>Mitigation Fee</i>	\$ 5,730	\$ 5,730	\$ 5,730	\$ 5,600	\$ 5,784	\$ 5,975	\$ 6,171	\$ 6,374	\$ 6,584	\$ 6,800	\$ 7,024	\$ 7,255	\$ 7,494
Local Development Mitigation													
Fee Revenue	\$ 230,810	\$ 673,242	\$ 714,000	\$ 1,679,000	\$ 2,798,000	\$ 3,440,000	\$ 4,689,000	\$ 6,602,000	\$ 7,203,000	\$ 9,317,000	\$ 9,623,000	\$ 9,940,000	\$ 11,990,000
<i>Allocation by Fund</i>													
Land Acquisition	\$ 230,810	\$ 673,242	\$ 714,000	\$ 242,000	\$ 1,669,000	\$ 2,509,000	\$ 3,268,000	\$ 4,938,000	\$ 6,642,000	\$ 8,077,000	\$ 8,509,000	\$ 8,332,000	\$ 10,574,000
Endowment	-	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring & Management	-	-	-	1,437,000	1,129,000	931,000	1,421,000	1,664,000	561,000	1,240,000	1,114,000	1,608,000	1,416,000
Total Expenditures	\$ 230,810	\$ 673,242	\$ 714,000	\$ 1,679,000	\$ 2,798,000	\$ 3,440,000	\$ 4,689,000	\$ 6,602,000	\$ 7,203,000	\$ 9,317,000	\$ 9,623,000	\$ 9,940,000	\$ 11,990,000

Note: All values shown in nominal dollars, i.e. including inflation at 3.29% percent annually unless otherwise noted. See text for explanation of each revenue and cost line item.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

**Table A-1: LDMF Revenue  
and Allocation (Nominal \$)**

FY Ending June 30 Plan Year	2022 14	2023 15	2024 16	2025 17	2026 18	2027 19	2028 20	2029 21	2030 22	2031 23	2032 24	2033 25	2034 26
<i>Mitigation Fee Revenue</i>													
New Developed Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Fee Exempt Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Acres Subject to Fee													
Mitigation Fee	\$ 7,741	\$ 7,995	\$ 8,258	\$ 8,530	\$ 8,811	\$ 9,100	\$ 9,400	\$ 9,709	\$ 10,029	\$ 10,358	\$ 10,699	\$ 11,051	\$ 11,415
Local Development Mitigation Fee Revenue	<b>\$12,462,000</b>	<b>\$12,872,000</b>	<b>\$13,296,000</b>	<b>\$13,733,000</b>	<b>\$14,185,000</b>	<b>\$14,652,000</b>	<b>\$15,134,000</b>	<b>\$15,632,000</b>	<b>\$16,146,000</b>	<b>\$16,677,000</b>	<b>\$17,226,000</b>	<b>\$17,793,000</b>	<b>\$18,378,000</b>
<i>Allocation by Fund</i>													
Land Acquisition	\$12,109,000	\$11,724,000	\$11,756,000	\$11,919,000	\$12,121,000	\$13,488,000	\$13,165,000	\$13,175,000	\$13,375,000	\$13,596,000	\$13,977,000	\$14,404,000	\$14,864,000
Endowment	-	-	-	-	-	-	-	-	-	-	-	-	-
Monitoring & Management	353,000	1,148,000	1,540,000	1,814,000	2,064,000	1,164,000	1,969,000	2,457,000	2,771,000	3,081,000	3,249,000	3,389,000	3,514,000
Total Expenditures	<b>\$12,462,000</b>	<b>\$12,872,000</b>	<b>\$13,296,000</b>	<b>\$13,733,000</b>	<b>\$14,185,000</b>	<b>\$14,652,000</b>	<b>\$15,134,000</b>	<b>\$15,632,000</b>	<b>\$16,146,000</b>	<b>\$16,677,000</b>	<b>\$17,226,000</b>	<b>\$17,793,000</b>	<b>\$18,378,000</b>

**Table A-1: LDMF Revenue  
and Allocation (Nominal \$)**

FY Ending June 30 Plan Year	2035 27	2036 28	2037 29	2038 30	2039 31	2040 32	2041 33	2042 34	2043 35	2044 36	2045 37	2046 38	2047 39
<i>Mitigation Fee Revenue</i>													
New Developed Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Fee Exempt Acres	-	-	-	-	-	-	-	-	-	-	-	-	-
Acres Subject to Fee	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
<i>Mitigation Fee</i>													
Local Development Mitigation	\$ 11,790	\$ 12,178	\$ 12,579	\$ 12,993	\$ 13,420	\$ 13,862	\$ 14,318	\$ 14,789	\$ 15,275	\$ 15,778	\$ 16,297	\$ 16,833	\$ 17,387
Fee Revenue	\$18,983,000	\$19,607,000	\$20,252,000	\$20,918,000	\$21,607,000	\$22,318,000	\$23,052,000	\$23,810,000	\$24,594,000	\$25,403,000	\$26,238,000	\$27,102,000	\$27,993,000
<i>Allocation by Fund</i>													
Land Acquisition	\$15,349,000	\$15,855,000	\$16,382,000	\$16,929,000	\$17,658,000	\$18,250,000	\$18,861,000	\$19,494,000	\$20,147,000	\$20,821,000	\$21,518,000	\$22,241,000	\$22,986,000
Endowment	3,634,000	3,752,000	3,870,000	3,989,000	3,949,000	4,068,000	4,191,000	4,316,000	4,447,000	4,582,000	4,720,000	4,861,000	5,007,000
Monitoring & Management	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	\$18,983,000	\$19,607,000	\$20,252,000	\$20,918,000	\$21,607,000	\$22,318,000	\$23,052,000	\$23,810,000	\$24,594,000	\$25,403,000	\$26,238,000	\$27,102,000	\$27,993,000

Table A-1: LDMF Revenue  
and Allocation (Nominal \$)

FY Ending June 30 Plan Year	2048 40	2049 41	2050 42	2051 43	2052 44	2053 45	2054 46	2055 47	2056 48	2057 49	2058 50	2059 51	2060 52
<i>Mitigation Fee Revenue</i>													
New Developed Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Fee Exempt Acres	-	-	-	-	-	-	-	-	-	-	-	-	-
Acres Subject to Fee	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Mitigation Fee	\$ 17,959	\$ 18,550	\$ 19,160	\$ 19,791	\$ 20,442	\$ 21,114	\$ 5,875	\$ 6,057	\$ 6,243	\$ 6,437	\$ 6,635	\$ 6,840	\$ 7,050
Local Development Mitigation													
Fee Revenue	\$28,914,000	\$29,866,000	\$30,848,000	\$31,863,000	\$32,911,000	\$33,994,000	\$ 9,459,000	\$ 9,752,000	\$10,052,000	\$10,364,000	\$10,682,000	\$11,012,000	\$11,351,000
<i>Allocation by Fund</i>													
Land Acquisition	\$23,758,000	\$24,554,000	\$25,378,000	\$26,228,000	\$27,108,000	\$28,018,000	\$ 3,304,000	\$ 3,413,000	\$ 3,525,000	\$ 3,641,000	\$ 3,761,000	\$ 3,885,000	\$ 4,013,000
Endowment	5,156,000	5,312,000	5,470,000	5,635,000	5,803,000	5,976,000	6,155,000	6,339,000	6,527,000	6,723,000	6,921,000	7,127,000	7,338,000
Monitoring & Management													
Total Expenditures	\$28,914,000	\$29,866,000	\$30,848,000	\$31,863,000	\$32,911,000	\$33,994,000	\$ 9,459,000	\$ 9,752,000	\$10,052,000	\$10,364,000	\$10,682,000	\$11,012,000	\$11,351,000

Table A-1: LDMF Revenue  
and Allocation (Nominal \$)

FY Ending June 30 Plan Year	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073
	53	54	55	56	57	58	59	60	61	62	63	64	65
<i>Mitigation Fee Revenue</i>													
New Developed Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Fee Exempt Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610
Acres Subject to Fee													
Mitigation Fee	\$ 7,268	\$ 7,491	\$ 7,722	\$ 7,960	\$ 8,204	\$ 8,457	\$ 8,716	\$ 8,984	\$ 9,259	\$ 9,543	\$ 9,836	\$ 10,139	\$ 10,449
Local Development Mitigation Fee Revenue	\$11,701,000	\$12,061,000	\$12,432,000	\$12,815,000	\$13,209,000	\$13,615,000	\$14,033,000	\$14,464,000	\$14,907,000	\$15,365,000	\$15,836,000	\$16,323,000	\$16,823,000
<i>Allocation by Fund</i>													
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Endowment	4,145,000	4,281,000	4,422,000	4,568,000	4,718,000	4,873,000	5,033,000	5,199,000	5,370,000	5,547,000	5,729,000	5,918,000	6,113,000
Monitoring & Management	7,556,000	7,780,000	8,010,000	8,247,000	8,491,000	8,742,000	9,000,000	9,265,000	9,537,000	9,818,000	10,107,000	10,405,000	10,710,000
Total Expenditures	\$11,701,000	\$12,061,000	\$12,432,000	\$12,815,000	\$13,209,000	\$13,615,000	\$14,033,000	\$14,464,000	\$14,907,000	\$15,365,000	\$15,836,000	\$16,323,000	\$16,823,000

Table A-1: LDMF Revenue  
and Allocation (Nominal \$)

FY Ending June 30 Plan Year	2074 66	2075 67	2076 68	2077 69	2078 70	2079 71	2080 72	2081 73	2082 74	2083 75	2009 - 2083 Total
<i>Mitigation Fee Revenue</i>											
New Developed Acres	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	110,452
Fee Exempt Acres	-	-	-	-	-	-	-	-	-	-	391
Acres Subject to Fee	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	110,061
<i>Mitigation Fee</i>	\$ 10,769	\$ 11,098	\$ 11,439	\$ 11,788	\$ 12,148	\$ 12,519	\$ 12,901	\$ 13,293	\$ 13,698	\$ 14,116	NA
Local Development Mitigation Fee Revenue	\$17,338,000	\$17,868,000	\$18,416,000	\$18,979,000	\$19,559,000	\$20,155,000	\$20,770,000	\$21,402,000	\$22,054,000	\$22,726,000	\$ 1,212,881,052
<i>Allocation by Fund</i>											
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 627,586,000
Endowment	6,314,000	6,522,000	6,737,000	6,959,000	7,188,000	7,424,000	7,668,000	7,920,000	8,181,000	8,450,000	164,821,000
Monitoring & Management	11,024,000	11,346,000	11,679,000	12,020,000	12,371,000	12,731,000	13,102,000	13,482,000	13,873,000	14,276,000	420,474,000
Total Expenditures	\$17,338,000	\$17,868,000	\$18,416,000	\$18,979,000	\$19,559,000	\$20,155,000	\$20,770,000	\$21,402,000	\$22,054,000	\$22,726,000	\$ 1,212,881,052

Table A-2: Land Acquisition

Fund (Nominal \$)	FY Ending June 30 Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Beginning Fund Balance		\$ -	\$ 1,604,304	\$ 312,000	\$ 4,749,000	\$ 2,610,000	\$ 1,650,000	\$ 1,467,000	\$ 1,697,000	\$ 23,157,000	\$ 26,331,000	\$ 27,101,000	\$ 27,786,000	\$ 28,172,000	\$ 38,610,000	\$ 34,868,000	\$ 30,690,000	\$ 26,461,000	\$ 21,569,000	\$ 33,003,000
<b>Revenues</b>																				
Local Development Mitigation Fee																				
Revenue		\$ 230,810	\$ 673,242	\$ 714,000	\$ 242,000	\$ 1,689,000	\$ 2,509,000	\$ 3,268,000	\$ 4,938,000	\$ 6,642,000	\$ 8,077,000	\$ 8,509,000	\$ 8,332,000	\$ 10,574,000	\$ 12,119,000	\$ 11,724,000	\$ 11,756,000	\$ 11,919,000	\$ 12,121,000	\$ 13,488,000
CVAG - Measure A		3,081,895	6,570,775	6,272,000	-	-	-	-	-	2,500,000	2,000,000	1,794,000	-	-	-	-	-	-	-	-
Callans		-	-	-	-	-	-	-	12,305,000	-	-	-	-	14,466,000	-	-	-	-	17,008,000	-
CVWD		-	-	-	-	-	-	-	10,486,000	-	-	-	-	-	-	-	-	-	-	-
Contributions		-	1,540,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants		-	1,845,600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other		43,500	100,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings <sup>1</sup>		2,000	4,000	18,000	272,000	150,000	97,000	84,000	109,000	1,327,000	1,509,000	1,553,000	1,592,000	1,500,000	2,098,000	1,959,000	1,759,000	1,518,000	1,238,000	1,861,000
Total Revenues		\$ 3,358,115	\$ 10,634,417	\$ 7,004,000	\$ 514,000	\$ 1,819,000	\$ 2,608,000	\$ 3,352,000	\$ 27,838,000	\$ 9,869,000	\$ 11,596,000	\$ 11,856,000	\$ 9,824,000	\$ 26,540,000	\$ 14,207,000	\$ 13,883,000	\$ 13,815,000	\$ 13,435,000	\$ 30,365,000	\$ 15,379,000
<b>Expenditures</b>																				
Land Cost Per Acre		\$ 9,617	\$ 10,574	\$ 10,091	\$ 10,423	\$ 10,766	\$ 11,120	\$ 11,456	\$ 11,864	\$ 12,254	\$ 12,657	\$ 13,073	\$ 13,504	\$ 13,948	\$ 14,407	\$ 14,891	\$ 15,370	\$ 15,876	\$ 16,398	\$ 16,938
Acres Purchased		150	1,100	200	200	200	200	200	500	500	800	800	800	1,100	1,100	1,100	1,100	1,100	1,100	900
Land Acquisition		\$ 1,442,468	\$ 11,631,796	\$ 2,016,000	\$ 2,085,000	\$ 2,153,000	\$ 2,224,000	\$ 2,287,000	\$ 5,932,000	\$ 6,127,000	\$ 10,126,000	\$ 10,459,000	\$ 10,803,000	\$ 15,343,000	\$ 15,647,000	\$ 16,369,000	\$ 16,807,000	\$ 17,464,000	\$ 18,038,000	\$ 15,244,000
Land Preparation		-	-	194,000	201,000	207,000	214,000	221,000	228,000	236,000	244,000	252,000	260,000	268,000	277,000	286,000	295,000	305,000	316,000	326,000
Administration		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Acquisition Manager (contract)		71,412	73,543	127,000	131,000	135,000	139,000	144,000	149,000	154,000	159,000	164,000	169,000	175,000	181,000	187,000	193,000	199,000	206,000	213,000
Administration (program-wide share)		239,901	221,199	228,000	236,000	244,000	252,000	260,000	268,000	276,000	287,000	296,000	306,000	316,000	328,000	337,000	348,000	359,000	371,000	383,000
Total Expenditures		\$ 1,753,811	\$ 11,928,537	\$ 2,367,000	\$ 2,655,000	\$ 2,739,000	\$ 2,829,000	\$ 2,922,000	\$ 6,578,000	\$ 6,795,000	\$ 10,815,000	\$ 11,171,000	\$ 11,538,000	\$ 16,102,000	\$ 16,631,000	\$ 17,779,000	\$ 17,744,000	\$ 18,327,000	\$ 18,931,000	\$ 16,186,000
Net Cash Flow		\$ 1,804,304	\$ (1,292,120)	\$ 4,437,000	\$ (2,139,000)	\$ (920,000)	\$ (223,000)	\$ 430,000	\$ 21,260,000	\$ 3,174,000	\$ 770,000	\$ 885,000	\$ (1,614,000)	\$ 10,438,000	\$ (2,424,000)	\$ (3,486,000)	\$ (4,225,000)	\$ (4,892,000)	\$ 11,434,000	\$ (797,000)
Ending Fund Balance		\$ 1,604,304	\$ 312,184	\$ 4,749,000	\$ 2,610,000	\$ 1,690,000	\$ 1,467,000	\$ 1,697,000	\$ 23,157,000	\$ 26,331,000	\$ 27,101,000	\$ 27,786,000	\$ 28,172,000	\$ 38,610,000	\$ 34,186,000	\$ 30,690,000	\$ 26,461,000	\$ 21,569,000	\$ 33,003,000	\$ 32,216,000

Note: All values shown in nominal dollars, i.e. including inflation at 3.26 percent annually unless otherwise noted. See text for explanation of each revenue and cost line item.

<sup>1</sup> Assumes nominal investment yield of 6.75 percent

Source: Coos Bay Valley Association of Governments; Wildcat Financial Services.

Table A-2: Land Acquisition

FY Ending June 30 Plan Year	Fund (Nominal \$)																2045 37
	2028 20	2029 21	2030 22	2032 24	2033 25	2034 26	2035 27	2036 28	2037 29	2038 30	2039 31	2040 32	2041 33	2042 34	2043 35	2044 36	
<b>Beginning Fund Balance</b>	\$ 32,216,000	\$ 30,528,000	\$ 28,204,000	\$ 22,031,000	\$ 16,285,000	\$ 14,085,000	\$ 12,667,000	\$ 11,091,000	\$ 8,784,000	\$ 5,666,000	\$ 2,260,000	\$ 3,454,000	\$ 4,763,000	\$ 6,194,000	\$ 6,703,000	\$ 6,548,000	\$ 5,697,000
<b>Revenues</b>																	
Local Development Mitigation Fee																	
Revenue	\$ 13,165,000	\$ 13,175,000	\$ 13,375,000	\$ 13,877,000	\$ 14,404,000	\$ 14,864,000	\$ 15,349,000	\$ 15,855,000	\$ 16,382,000	\$ 16,929,000	\$ 17,658,000	\$ 18,250,000	\$ 18,861,000	\$ 19,484,000	\$ 20,147,000	\$ 20,821,000	\$ 21,519,000
CVAG - Measure A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caltrans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CVWD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings	1,848,000	1,749,000	1,819,000	1,265,000	1,047,000	807,000	726,000	636,000	503,000	325,000	129,000	198,000	273,000	355,000	384,000	375,000	344,000
<b>Total Revenues</b>	\$ 15,011,000	\$ 14,924,000	\$ 14,991,000	\$ 15,239,000	\$ 15,451,000	\$ 15,671,000	\$ 16,075,000	\$ 16,491,000	\$ 16,885,000	\$ 17,254,000	\$ 17,787,000	\$ 18,448,000	\$ 19,134,000	\$ 19,849,000	\$ 20,531,000	\$ 21,196,000	\$ 21,852,000
<b>Expenditures</b>																	
Land Cost Per Acre	\$ 17,495	\$ 16,071	\$ 18,665	\$ 19,279	\$ 19,914	\$ 20,569	\$ 21,245	\$ 22,666	\$ 23,412	\$ 24,182	\$ 3,809	\$ 3,934	\$ 4,064	\$ 4,197	\$ 4,335	\$ 4,478	\$ 4,625
Acres Purchased	900	900	900	900	900	750	750	775	800	800	4,000	4,000	4,000	4,251	4,415	4,500	4,500
Land Acquisition	\$ 15,746,000	\$ 16,284,000	\$ 16,799,000	\$ 17,822,000	\$ 19,512,000	\$ 15,934,000	\$ 16,458,000	\$ 17,566,000	\$ 16,730,000	\$ 19,345,000	\$ 15,235,000	\$ 15,737,000	\$ 16,264,000	\$ 17,843,000	\$ 19,141,000	\$ 20,151,000	\$ 20,814,000
Land Preparation	337,000	348,000	359,000	371,000	383,000	409,000	422,000	436,000	451,000	465,000	481,000	498,000	513,000	530,000	547,000	565,000	584,000
Administration																	
Land Acquisition Manager (contract)	220,000	227,000	234,000	242,000	258,000	266,000	275,000	284,000	293,000	303,000	313,000	323,000	334,000	345,000	356,000	368,000	380,000
Administration (program-wide share)	395,000	439,000	422,000	436,000	455,000	480,000	498,000	512,000	529,000	548,000	564,000	583,000	602,000	622,000	642,000	663,000	685,000
<b>Total Expenditures</b>	\$ 16,695,000	\$ 17,248,000	\$ 17,814,000	\$ 18,400,000	\$ 19,005,000	\$ 17,089,000	\$ 17,851,000	\$ 18,798,000	\$ 20,003,000	\$ 20,560,000	\$ 16,593,000	\$ 17,139,000	\$ 17,703,000	\$ 19,340,000	\$ 20,666,000	\$ 21,747,000	\$ 22,463,000
<b>Net Cash Flow</b>	\$ (1,684,000)	\$ (2,324,000)	\$ (2,823,000)	\$ (3,350,000)	\$ (3,765,000)	\$ (1,418,000)	\$ (1,576,000)	\$ (2,307,000)	\$ (3,118,000)	\$ (3,408,000)	\$ 1,194,000	\$ 1,309,000	\$ 1,431,000	\$ 509,000	\$ (155,000)	\$ (551,000)	\$ (601,000)
<b>Ending Fund Balance</b>	\$ 30,528,000	\$ 28,204,000	\$ 25,381,000	\$ 22,031,000	\$ 18,285,000	\$ 14,085,000	\$ 12,667,000	\$ 11,091,000	\$ 8,784,000	\$ 5,666,000	\$ 2,260,000	\$ 3,454,000	\$ 4,763,000	\$ 6,194,000	\$ 6,703,000	\$ 6,548,000	\$ 5,997,000



**Table A-2: Land Acquisition  
Fund (Nominal \$)**

[illegible]

**Table A-3: Endowment Fund  
(Nominal \$)**

FY Ending June 30 Plan Year	2009 1	2010 2	2011 3	2012 4	2013 5	2014 6	2015 7	2016 8	2017 9	2018 10	2019 11	2020 12
<i>Beginning Fund Balance</i>	\$ -	\$ 803,120	\$ 2,024,000	\$ 1,548,000	\$ 2,269,000	\$ 2,627,000	\$ 1,964,000	\$ 1,595,000	\$ 3,921,000	\$ 2,665,000	\$ 3,066,000	\$ 2,209,000
<i>Revenues</i>	\$ 300,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
CVAAG - Measure A	-	-	-	-	-	-	-	-	-	-	-	-
Regional Infrastructure Mitigation (CVWD & IID)	-	-	-	-	-	-	-	-	-	-	-	-
CVFTL HCP Endowment Fund	-	-	-	-	-	-	-	-	-	-	-	-
CVAAG/Caltrans	-	-	-	-	-	-	-	-	-	1,070,000	-	-
Caltrans	-	-	-	-	-	-	-	2,533,000	-	-	-	-
CVWD	716,680	864,029	827,000	790,000	753,000	-	-	-	-	-	-	-
Local Development Mitigation Fee Revenue	-	-	-	-	-	-	-	-	-	-	-	-
IID	105,000	126,588	121,000	116,000	110,000	-	-	-	-	-	-	-
Interest Earnings <sup>1</sup>	9,993	15,859	116,000	89,000	130,000	151,000	113,000	91,000	225,000	154,000	176,000	127,000
<i>Total Revenues</i>	\$ 1,131,673	\$ 1,506,476	\$ 1,564,000	\$ 1,495,000	\$ 1,493,000	\$ 651,000	\$ 613,000	\$ 3,124,000	\$ 725,000	\$ 1,724,000	\$ 676,000	\$ 627,000
<i>Expenditures</i>												
Transfer To/(From) Mgmt & Monitoring Fund	328,553	285,960	2,040,000	774,000	1,135,000	1,314,000	982,000	798,000	1,961,000	1,343,000	1,533,000	1,105,000
<i>Total Expenditures</i>	\$ 328,553	\$ 285,960	\$ 2,040,000	\$ 774,000	\$ 1,135,000	\$ 1,314,000	\$ 982,000	\$ 798,000	\$ 1,961,000	\$ 1,343,000	\$ 1,533,000	\$ 1,105,000
<i>Net Cash Flow</i>	\$ 803,120	\$ 1,220,516	\$ (476,000)	\$ 721,000	\$ 358,000	\$ (663,000)	\$ (369,000)	\$ 2,326,000	\$ (1,236,000)	\$ 381,000	\$ (857,000)	\$ (478,000)
<i>Ending Fund Balance</i>	\$ 803,120	\$ 2,023,636	\$ 1,548,000	\$ 2,269,000	\$ 2,627,000	\$ 1,964,000	\$ 1,595,000	\$ 3,921,000	\$ 2,685,000	\$ 3,066,000	\$ 2,209,000	\$ 1,731,000
<i>Capacity to Fund Operating Fund (%)</i>	6.02%	21.70%	3.47%	4.98%	5.61%	4.20%	3.20%	7.66%	5.11%	5.68%	3.99%	3.04%

Note: All values shown in nominal dollars, i.e. including inflation at 3.28 percent annually unless otherwise noted. See text for explanation of each revenue and cost line item.

<sup>1</sup> Assumes nominal investment yield of 5.73 percent.

Sources: Coachella Valley Association of Governments; Willdan Financial Services.

**Table A-3: Endowment Fund**  
(Nominal \$)

FY Ending June 30 Plan Year	2021 13	2022 14	2023 15	2024 16	2025 17	2026 18	2027 19	2028 20	2029 21	2030 22	2031 23	2032 24
<i>Beginning Fund Balance</i>	\$ 1,731,000	\$ 3,997,000	\$ 2,727,000	\$ 2,019,000	\$ 1,625,000	\$ 1,286,000	\$ 3,250,000	\$ 1,811,000	\$ 1,009,000	\$ 562,000	\$ 313,000	\$ 174,000
<i>Revenues</i>												
CVA/G - Measure A	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 381,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Regional Infrastructure Mitigation (CVWD & IID)	-	-	-	-	-	-	-	-	-	-	-	-
CVFTL HCP Endowment Fund	-	-	-	-	-	-	-	-	-	-	-	-
CVA/G/Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
Caltrans	2,533,000	-	-	-	-	2,533,000	-	-	-	-	-	-
CVWD	-	-	-	-	-	-	-	-	-	-	-	-
Local Development Mitigation Fee Revenue	-	-	-	-	-	-	-	-	-	-	-	-
IID	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings <sup>1</sup>	99,000	229,000	156,000	116,000	93,000	74,000	186,000	104,000	58,000	32,000	18,000	10,000
<b>Total Revenues</b>	<b>\$ 3,132,000</b>	<b>\$ 729,000</b>	<b>\$ 656,000</b>	<b>\$ 616,000</b>	<b>\$ 474,000</b>	<b>\$ 2,607,000</b>	<b>\$ 186,000</b>	<b>\$ 104,000</b>	<b>\$ 58,000</b>	<b>\$ 32,000</b>	<b>\$ 18,000</b>	<b>\$ 10,000</b>
<i>Expenditures</i>												
Transfer To/(From) Mgmt & Monitoring Fund	866,000	1,999,000	1,364,000	1,010,000	813,000	643,000	1,625,000	906,000	505,000	281,000	157,000	87,000
<b>Total Expenditures</b>	<b>\$ 866,000</b>	<b>\$ 1,999,000</b>	<b>\$ 1,364,000</b>	<b>\$ 1,010,000</b>	<b>\$ 813,000</b>	<b>\$ 643,000</b>	<b>\$ 1,625,000</b>	<b>\$ 906,000</b>	<b>\$ 505,000</b>	<b>\$ 281,000</b>	<b>\$ 157,000</b>	<b>\$ 87,000</b>
<b>Net Cash Flow</b>	<b>\$ 2,266,000</b>	<b>\$ (1,270,000)</b>	<b>\$ (708,000)</b>	<b>\$ (394,000)</b>	<b>\$ (339,000)</b>	<b>\$ 1,964,000</b>	<b>\$ (1,439,000)</b>	<b>\$ (802,000)</b>	<b>\$ (447,000)</b>	<b>\$ (249,000)</b>	<b>\$ (139,000)</b>	<b>\$ (77,000)</b>
<i>Ending Fund Balance</i>	<b>\$ 3,997,000</b>	<b>\$ 2,727,000</b>	<b>\$ 2,019,000</b>	<b>\$ 1,625,000</b>	<b>\$ 1,286,000</b>	<b>\$ 3,250,000</b>	<b>\$ 1,811,000</b>	<b>\$ 1,009,000</b>	<b>\$ 562,000</b>	<b>\$ 313,000</b>	<b>\$ 174,000</b>	<b>\$ 97,000</b>
<i>Capacity to Fund Operating Fund (%)</i>	8.02%	5.30%	3.69%	2.92%	2.23%	5.47%	2.95%	1.59%	0.86%	0.46%	0.24%	0.13%

**Table A-3: Endowment Fund  
(Nominal \$)**

[illegible]

**Table A-3: Endowment Fund  
(Nominal \$)**

	FY Ending June 30 Plan Year											
	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063
	44	45	46	47	48	49	50	51	52	53	54	55
<i>Beginning Fund Balance</i>	\$ -	\$ -	\$ -	\$ 3,304,000	\$ 6,906,000	\$ 10,827,000	\$ 15,088,000	\$ 19,714,000	\$ 24,729,000	\$ 30,159,000	\$ 36,032,000	\$ 42,378,000
<i>Revenues</i>												
CVAG - Measure A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Regional Infrastructure Mitigation (CVWD & IID)	-	-	-	-	-	-	-	-	-	-	-	-
CV/FTL HCP Endowment Fund	-	-	-	-	-	-	-	-	-	-	-	-
CVAG/Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
Caltrans	-	-	-	-	-	-	-	-	-	-	-	-
CVWD	-	-	-	-	-	-	-	-	-	-	-	-
Local Development Mitigation Fee Revenue	-	-	3,304,000	3,413,000	3,525,000	3,641,000	3,761,000	3,885,000	4,013,000	4,145,000	4,281,000	4,422,000
IID	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earnings <sup>1</sup>	-	-	-	189,000	396,000	620,000	865,000	1,130,000	1,417,000	1,728,000	2,065,000	2,428,000
<b>Total Revenues</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,304,000</b>	<b>\$ 3,602,000</b>	<b>\$ 3,921,000</b>	<b>\$ 4,261,000</b>	<b>\$ 4,626,000</b>	<b>\$ 5,015,000</b>	<b>\$ 5,430,000</b>	<b>\$ 5,873,000</b>	<b>\$ 6,346,000</b>	<b>\$ 6,850,000</b>
<i>Expenditures</i>												
Transfer To/(From) Mgmt & Monitoring Fund	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Expenditures</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Net Cash Flow</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,304,000</b>	<b>\$ 3,602,000</b>	<b>\$ 3,921,000</b>	<b>\$ 4,261,000</b>	<b>\$ 4,626,000</b>	<b>\$ 5,015,000</b>	<b>\$ 5,430,000</b>	<b>\$ 5,873,000</b>	<b>\$ 6,346,000</b>	<b>\$ 6,850,000</b>
<i>Ending Fund Balance</i>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,304,000</b>	<b>\$ 6,906,000</b>	<b>\$ 10,827,000</b>	<b>\$ 15,088,000</b>	<b>\$ 19,714,000</b>	<b>\$ 24,729,000</b>	<b>\$ 30,159,000</b>	<b>\$ 36,032,000</b>	<b>\$ 42,378,000</b>	<b>\$ 49,228,000</b>
<i>Capacity to Fund Operating Fund (%)</i>	0.00%	0.00%	2.30%	4.65%	7.06%	9.53%	12.07%	14.66%	17.32%	20.04%	22.83%	25.69%

**Table A-3: Endowment Fund**  
(Nominal \$)

	FY Ending June 30 Plan Year											
	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	
	56	57	58	59	60	61	62	63	64	65	66	
<i>Beginning Fund Balance</i>	\$ 49,228,000	\$ 56,617,000	\$ 64,579,000	\$ 73,152,000	\$ 82,377,000	\$ 92,296,000	\$ 102,955,000	\$ 114,401,000	\$ 126,685,000	\$ 139,862,000	\$ 153,989,000	
<i>Revenues</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CVAAG - Measure A	-	-	-	-	-	-	-	-	-	-	-	
Regional Infrastructure Mitigation (CVWD & IID)	-	-	-	-	-	-	-	-	-	-	-	
CVFTL HCP Endowment Fund	-	-	-	-	-	-	-	-	-	-	-	
CVAAG/Caltrans	-	-	-	-	-	-	-	-	-	-	-	
Caltrans	-	-	-	-	-	-	-	-	-	-	-	
CVWD	-	-	-	-	-	-	-	-	-	-	-	
Local Development Mitigation Fee Revenue	4,568,000	4,718,000	4,873,000	5,033,000	5,199,000	5,370,000	5,547,000	5,729,000	5,918,000	6,113,000	6,314,000	
IID	-	-	-	-	-	-	-	-	-	-	-	
Interest Earnings <sup>1</sup>	2,821,000	3,244,000	3,700,000	4,192,000	4,720,000	5,289,000	5,899,000	6,555,000	7,259,000	8,014,000	8,824,000	
Total Revenues	\$ 7,389,000	\$ 7,962,000	\$ 8,573,000	\$ 9,225,000	\$ 9,919,000	\$ 10,659,000	\$ 11,446,000	\$ 12,284,000	\$ 13,177,000	\$ 14,127,000	\$ 15,138,000	
<i>Expenditures</i>	-	-	-	-	-	-	-	-	-	-	-	
Transfer To/(From) Mgmt & Monitoring Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenditures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<i>Net Cash Flow</i>	\$ 7,389,000	\$ 7,962,000	\$ 8,573,000	\$ 9,225,000	\$ 9,919,000	\$ 10,659,000	\$ 11,446,000	\$ 12,284,000	\$ 13,177,000	\$ 14,127,000	\$ 15,138,000	
<i>Ending Fund Balance</i>	\$ 56,617,000	\$ 64,579,000	\$ 73,152,000	\$ 82,377,000	\$ 92,296,000	\$ 102,955,000	\$ 114,401,000	\$ 126,685,000	\$ 139,862,000	\$ 153,989,000	\$ 169,127,000	
<i>Capacity to Fund Operating Fund (%)</i>	28.62%	31.61%	34.68%	37.83%	41.06%	44.36%	47.75%	51.21%	54.76%	58.40%	62.13%	

**Table A-3: Endowment Fund  
(Nominal \$)**

	FY Ending June 30 Plan Year												2009 - 2083 Total
	2075	2076	2077	2078	2079	2080	2081	2082	2083				
	67	68	69	70	71	72	73	74	75				
<i>Beginning Fund Balance</i>	\$ 169,127,000	\$ 185,340,000	\$ 202,697,000	\$ 221,271,000	\$ 241,138,000	\$ 262,379,000	\$ 285,081,000	\$ 309,336,000	\$ 335,242,000				
<i>Revenues</i>													
CVA - Measure A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 8,181,000
Regional Infrastructure Mitigation (CVWD & IID)	-	-	-	-	-	-	-	-	-				-
CVFTL HCP Endowment Fund	-	-	-	-	-	-	-	-	-				-
CVA/Calttrans	-	-	-	-	-	-	-	-	-				1,070,000
Calttrans	-	-	-	-	-	-	-	-	-				7,599,000
CVWD	-	-	-	-	-	-	-	-	-				3,951,000
Local Development Mitigation Fee Revenue	6,522,000	6,737,000	6,959,000	7,188,000	7,424,000	7,668,000	7,920,000	8,181,000	8,450,000				164,821,000
IID	-	-	-	-	-	-	-	-	-				579,000
Interest Earnings <sup>1</sup>	9,691,000	10,620,000	11,615,000	12,679,000	13,817,000	15,034,000	16,335,000	17,725,000	19,209,000				200,666,000
Total Revenues	\$ 16,213,000	\$ 17,357,000	\$ 18,574,000	\$ 19,867,000	\$ 21,241,000	\$ 22,702,000	\$ 24,255,000	\$ 25,906,000	\$ 27,659,000				\$386,867,000
<i>Expenditures</i>													
Transfer To/(From) Mgmt & Monitoring Fund	-	-	-	-	-	-	-	-	-				\$ 23,965,513
Total Expenditures	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 23,965,513
<i>Net Cash Flow</i>	\$ 16,213,000	\$ 17,357,000	\$ 18,574,000	\$ 19,867,000	\$ 21,241,000	\$ 22,702,000	\$ 24,255,000	\$ 25,906,000	\$ 27,659,000				
<i>Ending Fund Balance</i>	\$ 185,340,000	\$ 202,697,000	\$ 221,271,000	\$ 241,138,000	\$ 262,379,000	\$ 285,081,000	\$ 309,336,000	\$ 335,242,000	\$ 362,901,000				
<i>Capacity to Fund Operating Fund (%)</i>	65.95%	69.85%	73.86%	77.96%	82.17%	86.47%	90.88%	95.40%	100.03%				

**Table A-4: Monitoring Program Budget - (Nominal \$)**

FY Ending June 30	Base Salary	PY Salary <sup>1</sup>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
			1	2	3	4	5	6	7	8	9	10
<i>Personnel - All Species except sheep</i>												
Monitoring Program Admin (1)	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 99,300	\$ -	\$ 100,000	\$ 103,000	\$ 106,100	\$ 109,300	\$ 112,600
Vertebrate Ecol. - Field Supervisor (1)	90,000	90,000	90,000	93,000	96,100	99,300	102,600	106,000	109,500	113,100	116,800	120,600
Entomologist (1 @ 0.5)	80,000	40,000	40,000	41,300	42,700	44,100	45,600	47,100	48,600	50,200	51,900	53,600
Associate Biologist (1)	80,000	80,000	80,000	82,600	85,300	88,100	91,000	94,000	97,100	100,300	103,600	107,000
Biologist - Mammalogy (1@0.5)	70,000	35,000	35,000	36,200	37,400	38,600	39,900	41,200	42,600	44,000	45,400	46,900
Biologist - Ornithology (1-2@0.5)	70,000	70,000	70,000	72,300	74,700	77,200	79,700	82,200	84,700	87,200	89,700	92,200
Seasonal Aide - Ornithology (1@0.5)	30,000	15,000	15,000	15,500	16,000	16,500	17,000	17,600	18,200	18,800	19,400	20,000
Seasonal Aide (4-5@0.75)	112,500	112,500	112,500	116,200	120,000	123,900	128,000	132,000	136,000	140,000	144,000	148,000
<i>Personnel - Sheep and Trails</i>												
Seasonal Aide (3@0.75)	30,000	67,500	\$ 67,500	\$ 69,700	\$ 72,000	\$ 74,400	\$ 76,800	\$ 79,300	\$ 81,900	\$ 84,600	\$ 87,400	\$ 90,300
Graduate Researcher	60,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
<i>Sheep - Monitoring</i>												
Personnel	50,000	50,000	\$ 50,000	\$ 51,600	\$ 53,300	\$ 55,100	\$ 56,900	\$ 58,800	\$ 60,700	\$ 62,700	\$ 64,800	\$ 66,900
<i>Personnel - Data Analysis</i>												
GIS Analyst (1 @ 0.5)	80,000	40,000	\$ 40,000	\$ 41,300	\$ 42,700	\$ 44,100	\$ 45,600	\$ 47,100	\$ 48,600	\$ 50,200	\$ 51,900	\$ 53,600
GIS Technician (1 @ 0.5)	70,000	35,000	\$ 35,000	\$ 36,200	\$ 37,400	\$ 38,600	\$ 39,900	\$ 41,200	\$ 42,600	\$ 44,000	\$ 45,400	\$ 46,900
Personnel Subtotal			\$ 659,000	\$ 678,800	\$ 701,600	\$ 723,900	\$ 747,000	\$ 766,450	\$ 791,400	\$ 817,200	\$ 843,800	\$ 871,200
<i>One-time Cost Items</i>												
Revise/Update Natural Communities Map			\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Equipment and Supplies</i>												
Satellite/Aerial Imagery			\$ 15,000	\$ 3,000	\$ 3,100	\$ 3,200	\$ 3,300	\$ 3,400	\$ 3,500	\$ 3,600	\$ 3,700	\$ 3,800
Sampling Gear			15,000	15,500	16,000	5,000	5,200	5,400	5,600	5,800	6,000	6,200
Transect Set-up & Maintenance			5,000	5,200	5,400	5,600	5,800	6,000	6,200	6,400	6,600	6,800
Radio-tracking Equipment			3,000	600	620	640	660	680	700	720	740	760
Other Supplies			5,000	1,000	1,030	1,060	1,090	1,130	1,170	1,210	1,250	1,290
Weather Stations (3)			6,000	200	210	220	230	240	250	260	270	280
Vehicle Costs			18,400	19,000	19,600	20,200	20,900	21,600	22,300	23,000	23,800	24,600
Sheep Monitoring			65,000	67,100	69,300	71,600	74,000	76,400	78,900	81,500	84,200	87,000
Sheep Monitoring/Research			48,000	48,600	49,200	49,800	50,400	51,000	51,600	52,200	52,800	53,400
Equipment Subtotal			\$ 180,400	\$ 161,200	\$ 166,460	\$ 160,420	\$ 165,780	\$ 169,850	\$ 174,920	\$ 179,990	\$ 185,060	\$ 190,130
Subtotal - Estimated Cost			\$ 939,400	\$ 940,000	\$ 968,060	\$ 884,320	\$ 912,780	\$ 876,300	\$ 904,820	\$ 934,290	\$ 964,760	\$ 996,130
10% Contingency			\$ 93,940	\$ 84,000	\$ 86,806	\$ 88,432	\$ 91,278	\$ 87,630	\$ 90,482	\$ 93,429	\$ 96,476	\$ 99,613
Total - Estimated Cost			\$ 1,033,300	\$ 924,000	\$ 955,000	\$ 973,000	\$ 1,004,000	\$ 964,000	\$ 995,000	\$ 1,028,000	\$ 1,061,000	\$ 1,096,000

<sup>1</sup> This salary includes benefits, worker compensation, 10% administrative overhead.

Source: Coconello Valley Mountain Conservancy, William Financial Services

<sup>1</sup> This salary includes benefits, worker compensation, 10% administrative overhead.

Source: Coache Valley Mountain Conservancy, Willard Financial Services.

**Table A-4: Monitoring Program Budget - (Nominal \$)**

FY Ending June 30	2019 11	2020 12	2021 13	2022 14	2023 15	2024 16	2025 17	2026 18	2027 19	2028 20	2029 21	2030 22	2031 23
<i>Personnel - All Species except sheep</i>													
Monitoring Program Admin (1)	\$ 116,000	\$ 119,500	\$ 123,100	\$ 126,800	\$ 130,600	\$ 134,500	\$ 138,500	\$ 142,700	\$ 147,000	\$ 151,400	\$ 155,900	\$ 160,600	\$ 165,400
Vertebrate Ecol - Field Supervisor (1)	124,600	128,700	132,900	137,300	141,800	146,500	151,300	156,300	161,400	166,700	172,200	177,900	183,800
Entomologist (1 @ 0.5)	55,400	57,200	59,100	61,000	63,000	65,100	67,200	69,400	71,700	74,100	76,500	79,000	81,600
Associate Biologist (1)	110,500	114,100	117,900	121,800	125,800	129,900	134,200	138,600	143,200	147,900	152,800	157,800	163,000
Biologist - Mammalogy (1@0.5)	48,400	50,000	51,600	53,300	55,100	56,900	58,800	60,700	62,700	64,800	66,900	69,100	71,400
Biologist - Ornithology (1-2@0.5)	48,300	49,900	51,500	53,200	55,000	56,800	58,700	60,600	62,600	64,700	66,800	69,000	71,300
Seasonal Aide - Ornithology (1@0.5)	20,700	21,400	22,100	22,800	23,600	24,400	25,200	26,000	26,900	27,800	28,700	29,600	30,600
Seasonal Aide (4-5@0.75)	109,500	113,100	116,800	120,600	124,600	128,700	132,900	137,300	141,800	146,500	151,300	156,300	161,400
<i>Personnel - Sheep and Trails</i>													
Seasonal Aide (3@0.75)	\$ 93,300	\$ 96,400	\$ 99,600	\$ 102,900	\$ 106,300	\$ 109,800	\$ 113,400	\$ 117,100	\$ 121,000	\$ 125,000	\$ 129,100	\$ 133,300	\$ 137,700
Graduate Researcher													
<i>Sheep - Monitoring</i>													
Personnel	\$ 69,100	\$ 71,400	\$ 73,700	\$ 76,100	\$ 78,600	\$ 81,200	\$ 83,900	\$ 86,700	\$ 89,600	\$ 92,500	\$ 95,500	\$ 98,500	\$ 101,800
<i>Personnel - Data Analysis</i>													
GIS Analyst (1 @ 0.5)	\$ 55,400	\$ 57,200	\$ 59,100	\$ 61,000	\$ 63,000	\$ 65,100	\$ 67,200	\$ 69,400	\$ 71,700	\$ 74,100	\$ 76,500	\$ 79,000	\$ 81,600
GIS Technician (1 @ 0.5)	48,400	50,000	51,600	53,300	55,100	56,900	58,800	60,700	62,700	64,800	66,900	69,100	71,400
Personnel Subtotal	\$ 899,600	\$ 928,900	\$ 959,000	\$ 990,100	\$ 1,022,500	\$ 1,055,800	\$ 1,090,100	\$ 1,125,500	\$ 1,162,300	\$ 1,200,300	\$ 1,239,100	\$ 1,279,300	\$ 1,321,000
<i>One-time Cost Items</i>													
Revise/Update Natural Communities Map	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Equipment and Supplies</i>													
Satellite/Aerial Imagery	\$ 3,900	\$ 4,000	\$ 4,100	\$ 4,200	\$ 4,300	\$ 4,400	\$ 4,500	\$ 4,600	\$ 4,800	\$ 5,000	\$ 5,200	\$ 5,400	\$ 5,600
Sampling Gear	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,900	8,200	8,500	8,800	9,100	9,400
Transect Set-up & Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Radio-tracking Equipment	790	820	850	880	910	940	970	1,000	1,030	1,060	1,090	1,130	1,170
Other Supplies	1,330	1,370	1,420	1,470	1,520	1,570	1,620	1,670	1,720	1,780	1,840	1,900	1,960
Weather Stations (3)	290	300	310	320	330	340	350	360	370	380	390	400	410
Vehicle Costs	25,400	26,200	27,100	28,000	28,900	29,900	30,900	31,900	32,900	34,000	35,100	36,300	37,500
Sheep Monitoring	89,900	92,900	96,000	99,200	102,500	105,900	109,400	113,000	116,700	120,500	124,500	128,600	132,800
Sheep Monitoring/Research													
Equipment Subtotal	\$ 129,010	\$ 133,190	\$ 137,580	\$ 142,070	\$ 146,660	\$ 151,450	\$ 156,340	\$ 161,430	\$ 166,720	\$ 172,220	\$ 177,920	\$ 183,830	\$ 189,840
Subtotal - Estimated Cost	\$ 1,028,610	\$ 1,062,090	\$ 1,096,580	\$ 1,132,170	\$ 1,169,160	\$ 1,207,250	\$ 1,246,440	\$ 1,286,630	\$ 1,329,020	\$ 1,372,520	\$ 1,417,020	\$ 1,463,130	\$ 1,510,840
10% Contingency	\$ 102,861	\$ 106,209	\$ 109,658	\$ 113,217	\$ 116,916	\$ 120,725	\$ 124,644	\$ 128,693	\$ 132,902	\$ 137,252	\$ 141,702	\$ 146,313	\$ 151,084
Total - Estimated Cost	\$ 1,131,000	\$ 1,168,000	\$ 1,206,000	\$ 1,245,000	\$ 1,286,000	\$ 1,328,000	\$ 1,371,000	\$ 1,416,000	\$ 1,462,000	\$ 1,510,000	\$ 1,559,000	\$ 1,609,000	\$ 1,662,000

**Table A-4: Monitoring Program Budget - (Nominal \$)**

FY Ending June 30	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
	24	25	26	27	28	29	30	31	32	33	34	35	36
<i>Personnel - All Species except sheep</i>													
Monitoring Program Admin (1)	\$ 170,400	\$ 175,500	\$ 180,800	\$ 186,200	\$ 191,800	\$ 197,600	\$ 203,500	\$ 209,600	\$ 215,900	\$ 222,400	\$ 229,100	\$ 236,000	\$ 243,100
Vertebrate Ecol - Field Supervisor (1)	189,800	196,000	202,400	209,100	216,000	223,100	230,400	238,000	245,900	253,900	262,300	270,900	279,800
Entomologist (1 @ 0.5)	84,300	87,100	90,000	93,000	96,100	99,300	102,600	106,000	109,500	113,100	116,800	120,600	124,600
Associate Biologist (1)	166,400	173,900	179,600	185,500	191,600	197,900	204,400	211,100	218,000	225,200	232,600	240,300	248,200
Biologist - Mammalogy (1@0.5)	73,700	76,100	78,600	81,200	83,900	86,700	89,600	92,500	95,500	98,600	101,800	105,100	108,600
Biologist - Ornithology (1-2@0.5)	73,600	76,000	78,500	81,100	83,800	86,600	89,400	92,300	95,300	98,400	101,600	104,900	108,400
Seasonal Aide - Ornithology (1@0.5)	31,600	32,600	33,700	34,800	35,900	37,100	38,300	39,600	40,900	42,200	43,600	45,000	46,500
Seasonal Aide (4-5@0.75)	166,700	172,200	177,900	183,800	189,800	196,000	202,400	209,100	216,000	223,100	230,400	236,000	245,800
<i>Personnel - Sheep and Trails</i>													
Seasonal Aide (3@0.75)	\$ 142,200	\$ 146,900	\$ 151,700	\$ 156,700	\$ 161,900	\$ 167,200	\$ 172,700	\$ 178,400	\$ 184,300	\$ 190,400	\$ 196,700	\$ 203,200	\$ 209,900
Graduate Researcher													
<i>Sheep - Monitoring</i>													
Personnel	\$ 105,100	\$ 108,600	\$ 112,200	\$ 115,900	\$ 119,700	\$ 123,600	\$ 127,700	\$ 131,900	\$ 136,200	\$ 140,700	\$ 145,300	\$ 150,100	\$ 155,000
<i>Personnel - Data Analysis</i>													
GIS Analyst (1 @ 0.5)	\$ 84,300	\$ 87,100	\$ 90,000	\$ 93,000	\$ 96,100	\$ 99,300	\$ 102,600	\$ 106,000	\$ 109,500	\$ 113,100	\$ 116,800	\$ 120,600	\$ 124,600
GIS Technician (1 @ 0.5)	73,700	76,100	78,600	81,200	83,900	86,700	89,600	92,500	95,500	98,600	101,800	105,100	108,600
Personnel Subtotal	\$ 1,363,800	\$ 1,408,100	\$ 1,454,000	\$ 1,501,500	\$ 1,550,500	\$ 1,601,100	\$ 1,653,200	\$ 1,707,000	\$ 1,762,400	\$ 1,819,700	\$ 1,878,800	\$ 1,939,800	\$ 2,003,100
<i>One-time Cost Items</i>													
Revise/Update Natural Communities Map	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Equipment and Supplies</i>													
Satellite/Aerial Imagery	\$ 5,800	\$ 6,000	\$ 6,200	\$ 6,400	\$ 6,600	\$ 6,800	\$ 7,000	\$ 7,200	\$ 7,400	\$ 7,600	\$ 7,900	\$ 8,200	\$ 8,500
Sampling Gear	9,700	10,000	10,300	10,600	10,900	11,300	11,700	12,100	12,500	12,900	13,300	13,700	14,200
Transect Set-up & Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Radio-tracking Equipment	1,210	1,250	1,290	1,330	1,370	1,420	1,470	1,520	1,570	1,620	1,670	1,720	1,780
Other Supplies	2,020	2,090	2,160	2,230	2,300	2,380	2,460	2,540	2,620	2,710	2,800	2,890	2,990
Weather Stations (3)	420	430	440	450	460	470	480	490	500	520	540	560	580
Vehicle Costs	38,700	40,000	41,300	42,700	44,100	45,600	47,100	48,600	50,200	51,900	53,600	55,400	57,200
Sheep Monitoring	137,200	141,700	146,400	151,200	156,200	161,300	166,600	172,100	177,800	183,600	189,600	195,800	202,200
Sheep Monitoring/Research	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Subtotal	\$ 196,050	\$ 202,470	\$ 209,090	\$ 215,910	\$ 222,930	\$ 230,270	\$ 237,810	\$ 245,550	\$ 253,590	\$ 261,850	\$ 270,410	\$ 279,270	\$ 288,450
Subtotal - Estimated Cost	\$ 1,559,850	\$ 1,610,570	\$ 1,663,090	\$ 1,717,410	\$ 1,773,430	\$ 1,831,370	\$ 1,891,010	\$ 1,952,550	\$ 2,015,990	\$ 2,081,550	\$ 2,149,210	\$ 2,219,070	\$ 2,291,550
10% Contingency	\$ 155,985	\$ 161,057	\$ 166,309	\$ 171,741	\$ 177,343	\$ 183,137	\$ 189,101	\$ 195,255	\$ 201,599	\$ 208,155	\$ 214,921	\$ 221,907	\$ 229,155
Total - Estimated Cost	\$ 1,716,000	\$ 1,772,000	\$ 1,829,000	\$ 1,889,000	\$ 1,951,000	\$ 2,015,000	\$ 2,080,000	\$ 2,148,000	\$ 2,218,000	\$ 2,290,000	\$ 2,364,000	\$ 2,441,000	\$ 2,521,000

**Table A-4: Monitoring Program Budget - (Nominal \$)**

FY Ending June 30	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
	37	38	39	40	41	42	43	44	45	46	47	48	49
<i>Personnel - All Species except sheep</i>													
Monitoring Program Admin (1)	\$ 250,400	\$ 257,900	\$ 265,600	\$ 273,600	\$ 281,800	\$ 290,300	\$ 299,000	\$ 308,000	\$ 317,200	\$ 326,700	\$ 336,500	\$ 346,600	\$ 357,000
Vertebrate Ecol - Field Supervisor (1)	289,000	298,500	308,300	318,400	328,900	339,700	350,900	362,400	374,300	386,600	399,300	412,400	426,000
Entomologist (1 @ 0.5)	128,700	132,900	137,300	141,800	146,500	151,300	156,300	161,400	166,700	172,200	177,900	183,800	189,800
Associate Biologist (1)	256,400	264,800	273,500	282,500	291,800	301,400	311,300	321,500	332,100	343,000	354,300	366,000	378,000
Biologist - Mammalogy (1@0.5)	112,200	115,900	119,700	123,600	127,700	131,900	136,200	140,700	145,300	150,100	155,000	160,100	165,400
Biologist - Ornithology (1-2@0.5)	112,000	115,700	119,500	123,400	127,500	131,700	136,000	140,500	145,100	149,900	154,800	159,900	165,200
Seasonal Aide - Ornithology (1@0.5)	48,000	49,600	51,200	52,900	54,600	56,400	58,300	60,200	62,200	64,200	66,300	68,500	70,800
Seasonal Aide (4-5@0.75)	253,900	262,300	270,900	279,800	289,000	298,500	308,300	318,400	328,900	339,700	350,900	362,400	374,300
<i>Personnel - Sheep and Trails</i>													
Seasonal Aide (3@0.75)	\$ 216,800	\$ 223,900	\$ 231,300	\$ 238,900	\$ 246,800	\$ 254,900	\$ 263,300	\$ 272,000	\$ 280,900	\$ 290,100	\$ 299,600	\$ 309,500	\$ 319,700
Graduate Researcher													
<i>Sheep - Monitoring</i>													
Personnel	\$ 160,100	\$ 165,400	\$ 170,800	\$ 176,400	\$ 182,200	\$ 188,200	\$ 194,400	\$ 200,800	\$ 207,400	\$ 214,200	\$ 221,200	\$ 228,500	\$ 236,000
<i>Personnel - Data Analysis</i>													
GIS Analyst (1 @ 0.5)	\$ 128,700	\$ 132,900	\$ 137,300	\$ 141,800	\$ 146,500	\$ 151,300	\$ 156,300	\$ 161,400	\$ 166,700	\$ 172,200	\$ 177,900	\$ 183,800	\$ 189,800
GIS Technician (1 @ 0.5)	112,200	115,900	119,700	123,600	127,700	131,900	136,200	140,700	145,300	150,100	155,000	160,100	165,400
Personnel Subtotal	\$ 2,068,400	\$ 2,135,700	\$ 2,205,100	\$ 2,276,700	\$ 2,351,000	\$ 2,427,500	\$ 2,506,500	\$ 2,588,000	\$ 2,672,100	\$ 2,759,000	\$ 2,848,700	\$ 2,941,600	\$ 3,037,400
<i>One-time Cost Items</i>													
Revised/Update Natural Communities Map	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Equipment and Supplies</i>													
Satellite/Aerial Imagery	\$ 8,800	\$ 9,100	\$ 9,400	\$ 9,700	\$ 10,000	\$ 10,300	\$ 10,600	\$ 10,900	\$ 11,300	\$ 11,700	\$ 12,100	\$ 12,500	\$ 12,900
Sampling Gear	14,700	15,200	15,700	16,200	16,700	17,200	17,800	18,400	19,000	19,600	20,200	20,900	21,600
Transect Set-up & Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Radio-tracking Equipment	1,840	1,900	1,960	2,020	2,090	2,160	2,230	2,300	2,380	2,460	2,540	2,620	2,710
Other Supplies	3,090	3,190	3,290	3,400	3,510	3,630	3,750	3,870	4,000	4,130	4,270	4,410	4,560
Weather Stations (3)	600	620	640	660	680	700	720	740	760	780	800	820	840
Vehicle Costs	59,100	61,000	63,000	65,100	67,200	69,400	71,700	74,100	76,500	79,000	81,600	84,300	87,100
Sheep Monitoring	208,900	215,800	222,900	230,200	237,800	245,600	253,700	262,000	270,600	279,500	288,700	298,200	308,000
Sheep Monitoring/Research													
<i>Equipment Subtotal</i>													
Equipment Subtotal	\$ 298,030	\$ 307,810	\$ 317,890	\$ 328,280	\$ 338,980	\$ 349,990	\$ 361,500	\$ 373,310	\$ 385,540	\$ 398,170	\$ 411,210	\$ 424,750	\$ 438,710
Subtotal - Estimated Cost	\$ 2,366,430	\$ 2,443,510	\$ 2,522,990	\$ 2,604,980	\$ 2,689,980	\$ 2,777,490	\$ 2,868,000	\$ 2,961,310	\$ 3,057,640	\$ 3,157,170	\$ 3,259,910	\$ 3,366,350	\$ 3,476,110
10% Contingency	\$ 236,643	\$ 244,351	\$ 252,299	\$ 260,498	\$ 268,998	\$ 277,749	\$ 286,800	\$ 296,131	\$ 305,764	\$ 315,717	\$ 325,991	\$ 336,635	\$ 347,611
Total - Estimated Cost	\$ 2,603,000	\$ 2,688,000	\$ 2,775,000	\$ 2,865,000	\$ 2,959,000	\$ 3,055,000	\$ 3,155,000	\$ 3,257,000	\$ 3,363,000	\$ 3,473,000	\$ 3,586,000	\$ 3,703,000	\$ 3,824,000

**Table A-4: Monitoring Program Budget - (Nominal \$)**

FY Ending June 30	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071
	50	51	52	53	54	55	56	57	58	59	60	61	62	63
<i>Personnel - All Species except sheep</i>														
Monitoring Program Admin (1)	\$ 367,700	\$ 378,700	\$ 390,100	\$ 401,800	\$ 413,900	\$ 426,300	\$ 439,100	\$ 452,300	\$ 465,900	\$ 479,900	\$ 494,300	\$ 509,100	\$ 524,400	\$ 540,100
Vertebrate Ecol - Field Supervisor (1)	440,000	454,500	469,500	484,900	500,900	517,400	534,400	552,000	570,200	589,000	608,400	628,400	649,100	670,500
Entomologist (1 @ 0.5)	196,000	202,400	209,100	216,000	223,100	230,400	238,000	245,800	253,900	262,300	270,900	279,800	289,000	298,500
Associate Biologist (1)	390,400	403,200	416,500	430,200	444,400	459,000	474,100	489,700	505,800	522,400	539,600	557,400	575,700	594,600
Biologist - Mammalogy (1@0.5)	170,800	176,400	182,200	188,200	194,400	200,800	207,400	214,200	221,200	228,500	236,000	243,800	251,800	260,100
Biologist - Ornithology (1-2@0.5)	170,600	176,200	182,000	188,000	194,200	200,600	207,200	214,000	221,000	228,300	235,600	243,600	251,600	259,900
Seasonal Aide - Ornithology (1@0.5)	73,100	75,500	78,000	80,600	83,300	86,000	88,800	91,700	94,700	97,800	101,000	104,300	107,700	111,200
Seasonal Aide (4-5@0.75)	386,600	399,300	412,400	426,000	440,000	454,500	469,500	484,900	500,900	517,400	534,400	552,000	570,200	589,000
<i>Personnel - Sheep and Trails</i>														
Seasonal Aide (3@0.75)	\$ 330,200	\$ 341,100	\$ 352,300	\$ 363,900	\$ 375,900	\$ 388,300	\$ 401,100	\$ 414,300	\$ 427,900	\$ 442,000	\$ 456,500	\$ 471,500	\$ 487,000	\$ 503,000
Graduate Researcher														
<i>Sheep - Monitoring</i>														
Personnel	\$ 243,800	\$ 251,800	\$ 260,100	\$ 268,700	\$ 277,500	\$ 286,600	\$ 296,000	\$ 305,700	\$ 315,800	\$ 326,200	\$ 336,900	\$ 348,000	\$ 359,400	\$ 371,200
<i>Personnel - Data Analysis</i>														
GIS Analyst (1 @ 0.5)	\$ 196,000	\$ 202,400	\$ 209,100	\$ 216,000	\$ 223,100	\$ 230,400	\$ 238,000	\$ 245,800	\$ 253,900	\$ 262,300	\$ 270,900	\$ 279,800	\$ 289,000	\$ 298,500
GIS Technician (1 @ 0.5)	170,800	176,400	182,200	188,200	194,400	200,800	207,400	214,200	221,200	228,500	236,000	243,800	251,800	260,100
Personnel Subtotal	\$ 3,136,000	\$ 3,237,900	\$ 3,343,500	\$ 3,452,500	\$ 3,565,100	\$ 3,681,100	\$ 3,801,000	\$ 3,924,600	\$ 4,052,400	\$ 4,184,600	\$ 4,320,700	\$ 4,461,500	\$ 4,606,700	\$ 4,756,700
<i>One-time Cost Items</i>														
Revised/Update Natural Communities Map	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Equipment and Supplies</i>														
Satellite/Aerial Imagery	\$ 13,300	\$ 13,700	\$ 14,200	\$ 14,700	\$ 15,200	\$ 15,700	\$ 16,200	\$ 16,700	\$ 17,200	\$ 17,800	\$ 18,400	\$ 19,000	\$ 19,600	\$ 20,200
Sampling Gear	22,300	23,000	23,800	24,600	25,400	26,200	27,100	28,000	28,900	29,900	30,900	31,900	32,900	34,000
Transect Set-up & Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Radio-tracking Equipment	2,800	2,890	2,990	3,090	3,190	3,290	3,400	3,510	3,630	3,750	3,870	4,000	4,130	4,270
Other Supplies	4,710	4,860	5,020	5,190	5,360	5,540	5,720	5,910	6,100	6,300	6,510	6,720	6,940	7,170
Weather Stations (3)	870	900	930	960	990	1,020	1,050	1,080	1,110	1,140	1,170	1,210	1,250	1,290
Vehicle Costs	90,000	93,000	96,100	99,300	102,600	106,000	109,500	113,100	116,800	120,600	124,600	128,700	132,900	137,300
Sheep Monitoring	318,100	328,600	339,400	350,600	362,100	374,000	386,300	399,000	412,100	425,700	439,700	454,200	469,100	484,500
Sheep Monitoring/Research	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Subtotal	\$ 453,080	\$ 467,950	\$ 483,440	\$ 499,440	\$ 515,840	\$ 532,750	\$ 550,270	\$ 568,300	\$ 586,840	\$ 606,190	\$ 626,150	\$ 646,730	\$ 667,820	\$ 689,730
Subtotal - Estimated Cost	\$ 3,589,080	\$ 3,705,850	\$ 3,826,940	\$ 3,951,940	\$ 4,080,940	\$ 4,213,850	\$ 4,351,270	\$ 4,492,900	\$ 4,639,240	\$ 4,790,790	\$ 4,946,850	\$ 5,108,230	\$ 5,274,520	\$ 5,446,430
10% Contingency	\$ 358,908	\$ 370,585	\$ 382,694	\$ 395,194	\$ 408,094	\$ 421,385	\$ 435,127	\$ 449,290	\$ 463,924	\$ 479,079	\$ 494,685	\$ 510,823	\$ 527,452	\$ 544,643
Total - Estimated Cost	\$ 3,948,000	\$ 4,076,000	\$ 4,210,000	\$ 4,347,000	\$ 4,489,000	\$ 4,635,000	\$ 4,786,000	\$ 4,942,000	\$ 5,103,000	\$ 5,270,000	\$ 5,442,000	\$ 5,619,000	\$ 5,802,000	\$ 5,991,000

Table A-4: Monitoring Program

Budget - (Nominal \$)													
FY Ending June 30	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	
	64	65	66	67	68	69	70	71	72	73	74	75	
<i>Personnel - All Species except sheep</i>													
Monitoring Program Admin (1)	\$ 556,300	\$ 573,000	\$ 590,200	\$ 607,900	\$ 625,100	\$ 644,900	\$ 664,200	\$ 684,100	\$ 704,600	\$ 725,700	\$ 747,500	\$ 769,900	
Vertebrate Ecol - Field Supervisor (1)	692,600	715,400	738,900	763,200	788,300	814,200	841,000	868,700	897,300	926,800	957,300	988,800	
Entomologist (1 @ 0.5)	308,300	318,400	328,900	339,700	350,900	362,400	374,300	386,600	399,300	412,400	426,000	440,000	
Associate Biologist (1)	614,200	634,400	655,300	676,900	699,200	722,200	746,000	770,500	795,800	822,000	849,000	876,900	
Biologist - Mammalogy (1@0.5)	288,700	277,500	286,600	296,000	305,700	315,800	326,200	336,900	348,000	359,400	371,200	383,400	
Biologist - Ornithology (1-2@0.5)	268,500	277,300	286,400	295,800	305,500	315,600	326,000	336,700	347,800	359,200	371,000	383,200	
Seasonal Aide - Ornithology (1@0.5)	114,900	118,700	122,600	126,600	130,800	135,100	139,500	144,100	148,800	153,700	158,800	164,000	
Seasonal Aide (4-5@0.75)	608,400	628,400	649,100	670,500	692,600	715,400	738,900	763,200	788,300	814,200	841,000	868,700	
<i>Personnel - Sheep and Trails</i>													
Seasonal Aide (3@0.75)	\$ 519,500	\$ 536,600	\$ 554,300	\$ 572,500	\$ 591,300	\$ 610,800	\$ 630,900	\$ 651,700	\$ 673,100	\$ 695,200	\$ 718,100	\$ 741,700	
Graduate Researcher													
<i>Sheep - Monitoring</i>													
Personnel	\$ 383,400	\$ 396,000	\$ 409,000	\$ 422,500	\$ 436,400	\$ 450,800	\$ 465,600	\$ 480,900	\$ 496,700	\$ 513,000	\$ 529,900	\$ 547,300	
<i>Personnel - Data Analysis</i>													
GIS Analyst (1 @ 0.5)	\$ 308,300	\$ 318,400	\$ 328,900	\$ 339,700	\$ 350,900	\$ 362,400	\$ 374,300	\$ 386,600	\$ 399,300	\$ 412,400	\$ 426,000	\$ 440,000	
GIS Technician (1 @ 0.5)	268,700	277,500	286,600	296,000	305,700	315,800	326,200	336,900	348,000	359,400	371,200	383,400	
Personnel Subtotal	\$ 4,911,800	\$ 5,071,600	\$ 5,238,800	\$ 5,407,300	\$ 5,583,400	\$ 5,765,400	\$ 5,953,100	\$ 6,146,900	\$ 6,347,000	\$ 6,553,400	\$ 6,767,000	\$ 6,987,300	
<i>One-time Cost Items</i>													
Revise/Update Natural Communities Map	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<i>Equipment and Supplies</i>													
Satellite/Aerial Imagery	\$ 20,900	\$ 21,600	\$ 22,300	\$ 23,000	\$ 23,800	\$ 24,600	\$ 25,400	\$ 26,200	\$ 27,100	\$ 28,000	\$ 28,900	\$ 29,900	
Sampling Gear	35,100	36,300	37,500	38,700	40,000	41,300	42,700	44,100	45,600	47,100	48,600	50,200	
Transect Set-up & Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
Radio-tracking Equipment	4,410	4,560	4,710	4,860	5,020	5,180	5,360	5,540	5,720	5,910	6,100	6,300	
Other Supplies	7,410	7,650	7,900	8,160	8,430	8,710	9,000	9,300	9,610	9,930	10,260	10,600	
Weather Stations (3)	1,330	1,370	1,410	1,450	1,490	1,530	1,580	1,630	1,680	1,730	1,780	1,830	
Vehicle Costs	141,800	146,500	151,300	156,300	161,400	166,700	172,200	177,900	183,800	189,800	196,000	202,400	
Sheep Monitoring	500,400	516,900	533,900	551,500	569,600	588,300	607,700	627,700	648,400	669,700	691,700	714,500	
Sheep Monitoring/Research	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Equipment Subtotal</i>													
Equipment Subtotal	\$ 712,350	\$ 735,880	\$ 760,020	\$ 784,970	\$ 810,740	\$ 837,330	\$ 864,940	\$ 893,370	\$ 922,910	\$ 953,170	\$ 984,340	\$ 1,016,730	
Subtotal - Estimated Cost	\$ 5,624,150	\$ 5,807,480	\$ 5,995,820	\$ 6,192,270	\$ 6,394,140	\$ 6,602,730	\$ 6,818,040	\$ 7,040,270	\$ 7,269,910	\$ 7,506,570	\$ 7,751,340	\$ 8,004,030	
10% Contingency	\$ 562,415	\$ 580,748	\$ 599,682	\$ 619,227	\$ 639,414	\$ 660,273	\$ 681,804	\$ 704,027	\$ 726,991	\$ 750,657	\$ 775,134	\$ 800,403	
Total - Estimated Cost	\$ 6,187,000	\$ 6,388,000	\$ 6,597,000	\$ 6,811,000	\$ 7,034,000	\$ 7,263,000	\$ 7,500,000	\$ 7,744,000	\$ 7,997,000	\$ 8,257,000	\$ 8,526,000	\$ 8,804,000	

**Table A-5: CVMSHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	Base Salary	PY Salary <sup>1</sup>	2009 1	2010 2	2011 3	2012 4	2013 5	2014 6	2015 7	2016 8	2017 9	2018 10
<i>Personnel</i>												
Reserve Land Manager	\$ 82,000	90,200	\$ 90,200	\$ 93,200	\$ 96,300	\$ 99,500	\$ 102,800	\$ 106,200	\$ 109,700	\$ 113,300	\$ 117,000	\$ 120,800
Asst. Reserve Manager (4) <sup>2</sup>	68,300	75,130	75,100	77,600	80,200	82,800	85,500	88,300	91,000	93,700	96,400	99,100
Ranger-Warden (2)	80,000	88,000	176,000	181,800	187,800	194,000	200,400	207,000	213,800	220,800	228,100	235,600
Field Crew Labor (contract)	36,000	39,600	39,600	40,900	42,200	43,600	45,000	46,500	48,000	49,600	51,200	52,900
Admin. Assistant (0.25-0.5) <sup>2</sup>	39,700	43,670	13,895	14,400	14,900	15,400	15,900	16,400	26,900	27,800	28,700	29,600
Personnel Subtotal			\$ 394,795	\$ 407,900	\$ 421,400	\$ 435,300	\$ 449,600	\$ 464,400	\$ 586,000	\$ 584,600	\$ 603,300	\$ 622,500
Staff per Year - Subtotal			4,25	4,25	4,25	4,25	4,25	4,25	5,5	5,5	5,5	5,5
Personnel Cost Without Inflation			394,795	395,000	395,000	395,000	395,000	395,000	468,000	468,000	468,000	468,000
<i>Equipment and Supplies</i>												
Site Protection & Maintenance			\$ 25,000	\$ 25,800	\$ 26,600	\$ 27,500	\$ 28,400	\$ 29,300	\$ 30,300	\$ 31,300	\$ 32,300	\$ 33,400
Habitat Maintenance and Rest.			9,700	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,800	5,000
Field Equipment and Supplies			61,300	13,900	14,400	14,900	15,400	15,900	16,400	16,900	17,500	18,100
Office Equipment			44,600	39,900	41,200	42,600	44,000	45,400	46,900	48,400	50,000	51,600
Public Education Services			9,000	5,700	5,900	6,100	6,300	6,500	6,700	6,900	7,100	7,300
Equipment Subtotal			149,600	89,300	92,200	95,300	98,400	101,500	104,800	108,100	111,700	115,400
Subtotal - Estimated Cost			544,395	497,200	513,600	530,600	548,000	565,900	670,800	692,700	715,000	737,900
10% Contingency			54,440	49,720	51,360	53,060	54,800	56,590	67,080	69,270	71,500	73,790
Administrative Overhead (10%)			54,440	49,720	51,360	53,060	54,800	56,590	67,080	69,270	71,500	73,790
Total - Estimated Cost			653,000	597,000	616,000	637,000	658,000	679,000	805,000	831,000	858,000	885,000

<sup>1</sup> This salary includes benefits, worker compensation, 10% administrative overhead.

<sup>2</sup> These positions are phased in as the number of acres acquired increases.

Source: Coachella Valley Mountain Conservancy; Willdan Financial Services.

**Table A-5: CVMSHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2019 11	2020 12	2021 13	2022 14	2023 15	2024 16	2025 17	2026 18	2027 19	2028 20	2029 21	2030 22
<i>Personnel</i>												
Reserve Land Manage	\$ 124,800	\$ 128,900	\$ 133,100	\$ 137,500	\$ 142,000	\$ 146,700	\$ 151,500	\$ 156,500	\$ 161,600	\$ 166,900	\$ 172,400	\$ 178,100
Asst. Reserve Manager (4) <sup>2</sup>	189,100	194,800	200,600	206,600	286,200	294,800	303,600	312,700	322,100	331,800	341,800	352,100
Ranger-Warden (2)	243,400	251,400	259,700	268,200	277,000	286,100	295,500	305,200	315,200	325,600	336,300	347,400
Field Crew Labor (contract)	54,600	56,400	58,300	60,200	62,200	32,100	33,200	34,300	35,400	36,600	37,800	39,000
Admin. Assistant (0.25-0.5) <sup>2</sup>	30,600	31,600	32,600	33,700	34,800	35,900	37,100	38,300	39,600	40,900	42,200	43,600
Personnel Subtotal	\$ 642,500	\$ 663,100	\$ 684,300	\$ 706,200	\$ 802,200	\$ 795,600	\$ 820,900	\$ 847,000	\$ 873,900	\$ 901,800	\$ 930,500	\$ 960,200
Staff per Year - Subtotal	5.5	5.5	5.5	5.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Personnel Cost Without Inflation	468,000	468,000	468,000	468,000	517,000	498,000	498,000	498,000	498,000	498,000	498,000	498,000
<i>Equipment and Supplies</i>												
Site Protection & Maintenance	\$ 34,500	\$ 35,600	\$ 36,800	\$ 38,000	\$ 39,300	\$ 40,600	\$ 41,900	\$ 43,300	\$ 44,700	\$ 46,200	\$ 47,700	\$ 49,300
Habitat Maintenance and Rest.	5,200	5,400	5,600	5,800	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400
Field Equipment and Supplies	18,700	19,300	19,900	20,600	21,300	22,000	22,700	23,400	24,200	25,000	25,800	26,600
Office Equipment	53,300	55,100	56,900	58,800	60,700	62,700	64,800	66,900	69,100	71,400	73,700	76,100
Public Education Services	7,500	7,700	8,000	8,300	8,600	8,900	9,200	9,500	9,800	10,100	10,400	10,700
Equipment Subtotal	119,200	123,100	127,200	131,500	135,900	140,400	145,000	149,700	154,600	159,700	164,800	170,100
Subtotal - Estimated Cost	761,700	786,200	811,500	837,700	938,100	936,000	985,900	996,700	1,028,500	1,061,500	1,095,300	1,130,300
10% Contingency	76,170	78,620	81,150	83,770	93,810	93,600	96,590	99,670	102,850	106,150	109,530	113,030
Administrative Overhead (10%)	76,170	78,620	81,150	83,770	93,810	93,600	96,590	99,670	102,850	106,150	109,530	113,030
Total - Estimated Cost	914,000	943,000	974,000	1,005,000	1,126,000	1,123,000	1,159,000	1,196,000	1,234,000	1,274,000	1,314,000	1,356,000

**Table A-5: CVMSHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2031 23	2032 24	2033 25	2034 26	2035 27	2036 28	2037 29	2038 30	2039 31	2040 32	2041 33
<i>Personnel</i>											
Reserve Land Manage	\$ 184,000	\$ 190,100	\$ 196,400	\$ 202,900	\$ 209,600	\$ 216,500	\$ 223,600	\$ 231,000	\$ 238,600	\$ 246,400	\$ 254,500
Asst. Reserve Manager (4) <sup>2</sup>	440,000	453,200	466,800	480,800	495,200	510,100	525,400	541,200	557,400	574,100	591,300
Ranger-Warden (2)	358,800	370,600	382,800	395,400	408,400	421,800	435,700	450,000	464,800	480,100	495,900
Field Crew Labor (contract)	40,300	41,600	43,000	44,400	45,900	47,400	49,000	50,600	52,300	54,000	55,800
Admin. Assistant (0.25-0.5) <sup>2</sup>	45,000	46,500	48,000	49,600	51,200	52,900	54,600	56,400	58,300	60,200	62,200
Personnel Subtotal	\$ 1,068,100	\$ 1,102,000	\$ 1,137,000	\$ 1,173,100	\$ 1,210,300	\$ 1,248,700	\$ 1,288,300	\$ 1,329,200	\$ 1,371,400	\$ 1,414,800	\$ 1,459,700
Staff per Year - Subtotal	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Personnel Cost Without Inflation	498,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000
<i>Equipment and Supplies</i>											
Site Protection & Maintenance	\$ 50,900	\$ 52,600	\$ 54,300	\$ 56,100	\$ 57,900	\$ 59,800	\$ 61,800	\$ 63,800	\$ 65,900	\$ 68,100	\$ 70,300
Habitat Maintenance and Rest.	7,600	7,900	8,200	8,500	8,800	9,100	9,400	9,700	10,000	10,300	10,600
Field Equipment and Supplies	27,500	28,400	29,300	30,300	31,300	32,300	33,400	34,500	35,600	36,800	38,000
Office Equipment	78,600	81,200	83,900	86,700	89,600	92,500	95,500	98,600	101,800	105,100	108,600
Public Education Services	11,100	11,500	11,900	12,300	12,700	13,100	13,500	13,900	14,400	14,900	15,400
Equipment Subtotal	175,700	181,600	187,600	193,900	200,300	206,800	213,600	220,500	227,700	235,200	242,900
Subtotal - Estimated Cost	1,243,800	1,283,600	1,324,600	1,367,000	1,410,600	1,455,500	1,501,900	1,549,700	1,599,100	1,650,000	1,702,600
10% Contingency	124,380	128,360	132,460	136,700	141,060	145,550	150,190	154,970	159,910	165,000	170,260
Administrative Overhead (10%)	124,380	128,360	132,460	136,700	141,060	145,550	150,190	154,970	159,910	165,000	170,260
Total - Estimated Cost	1,493,000	1,540,000	1,590,000	1,640,000	1,693,000	1,747,000	1,802,000	1,860,000	1,919,000	1,980,000	2,043,000

**Table A-5: CVM SHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
	34	35	36	37	38	39	40	41	42	43	44
<i>Personnel</i>											
Reserve Land Manage											
Asst. Reserve Manager (4) <sup>2</sup>	\$ 262,900	\$ 271,500	\$ 280,400	\$ 289,600	\$ 299,100	\$ 308,900	\$ 319,100	\$ 329,600	\$ 340,400	\$ 351,600	\$ 363,200
Ranger-Warden (2)	609,000	627,300	646,100	665,500	685,500	706,100	727,300	749,100	771,600	794,700	818,500
Field Crew Labor (contract)	512,200	529,100	546,500	564,500	583,100	602,300	622,100	642,600	663,700	685,500	708,100
Admin. Assistant (0.25-0.5) <sup>2</sup>	57,600	59,500	61,500	63,500	65,600	67,800	70,000	72,300	74,700	77,200	79,700
	64,200	66,300	68,500	70,800	73,100	75,500	78,000	80,600	83,300	86,000	88,800
Personnel Subtotal	\$ 1,505,900	\$ 1,553,700	\$ 1,603,000	\$ 1,653,900	\$ 1,706,400	\$ 1,760,600	\$ 1,816,500	\$ 1,874,200	\$ 1,933,700	\$ 1,995,000	\$ 2,058,300
Staff per Year - Subtotal	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Personnel Cost Without Inflation	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000
<i>Equipment and Supplies</i>											
Site Protection & Maintenance											
Habitat Maintenance and Rest.	\$ 72,600	\$ 75,000	\$ 77,500	\$ 80,000	\$ 82,600	\$ 85,300	\$ 88,100	\$ 91,000	\$ 94,000	\$ 97,100	\$ 100,300
Field Equipment and Supplies	10,900	11,300	11,700	12,100	12,500	12,900	13,300	13,700	14,200	14,700	15,200
Office Equipment	39,300	40,600	41,900	43,300	44,700	46,200	47,700	49,300	50,900	52,600	54,300
Public Education Services	112,200	115,900	119,700	123,600	127,700	131,900	136,200	140,700	145,300	150,100	155,000
Equipment Subtotal	15,900	16,400	16,900	17,500	18,100	18,700	19,300	19,900	20,600	21,300	22,000
	250,900	259,200	267,700	276,500	285,600	295,000	304,600	314,600	325,000	335,800	346,800
Subtotal - Estimated Cost	1,756,800	1,812,900	1,870,700	1,930,400	1,992,000	2,055,600	2,121,100	2,188,800	2,258,700	2,330,800	2,405,100
10% Contingency	175,680	181,290	187,070	193,040	199,200	205,560	212,110	218,880	225,870	233,080	240,510
Administrative Overhead (10%)	175,680	181,290	187,070	193,040	199,200	205,560	212,110	218,880	225,870	233,080	240,510
Total - Estimated Cost	2,108,000	2,175,000	2,245,000	2,316,000	2,390,000	2,467,000	2,545,000	2,627,000	2,710,000	2,797,000	2,886,000

**Table A-5: CVMSHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2053 45	2054 46	2055 47	2056 48	2057 49	2058 50	2059 51	2060 52	2061 53	2062 54	2063 55
<i>Personnel</i>											
Reserve Land Manage	\$ 375,100	\$ 387,400	\$ 400,100	\$ 413,300	\$ 426,900	\$ 440,900	\$ 455,400	\$ 470,400	\$ 485,900	\$ 501,900	\$ 518,400
Asst. Reserve Manager (4) <sup>2</sup>	843,100	888,400	894,500	921,300	948,900	977,400	1,006,700	1,036,900	1,068,000	1,100,000	1,133,000
Ranger-Warden (2)	731,400	755,500	780,400	806,100	832,600	860,000	888,300	917,500	947,700	978,900	1,011,100
Field Crew Labor (contract)	82,300	85,000	87,800	90,700	93,700	96,800	100,000	103,300	106,700	110,200	113,800
Admin. Assistant (0.25-0.5) <sup>2</sup>	91,700	94,700	97,800	101,000	104,300	107,700	111,200	114,900	118,700	122,600	126,600
Personnel Subtotal	\$ 2,123,600	\$ 2,191,000	\$ 2,260,600	\$ 2,332,400	\$ 2,406,400	\$ 2,482,800	\$ 2,561,600	\$ 2,643,000	\$ 2,727,000	\$ 2,813,600	\$ 2,902,900
Staff per Year - Subtotal	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Personnel Cost Without Inflation	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000
<i>Equipment and Supplies</i>											
Site Protection & Maintenance	\$ 103,600	\$ 107,000	\$ 110,500	\$ 114,100	\$ 117,900	\$ 121,800	\$ 125,800	\$ 129,900	\$ 134,200	\$ 138,600	\$ 143,200
Habitat Maintenance and Rest.	15,700	16,200	16,700	17,200	17,800	18,400	19,000	19,600	20,200	20,900	21,600
Field Equipment and Supplies	56,100	57,900	59,800	61,800	63,800	65,900	68,100	70,300	72,600	75,000	77,500
Office Equipment	160,100	165,400	170,800	176,400	182,200	188,200	194,400	200,800	207,400	214,200	221,200
Public Education Services	22,700	23,400	24,200	25,000	25,800	26,600	27,500	28,400	29,300	30,300	31,300
Equipment Subtotal	358,200	369,900	382,000	394,500	407,500	420,900	434,800	449,000	463,700	479,000	494,800
Subtotal - Estimated Cost	2,481,800	2,560,900	2,642,600	2,726,900	2,813,900	2,903,700	2,996,400	3,092,000	3,190,700	3,292,600	3,397,700
10% Contingency	248,180	256,090	264,260	272,690	281,390	290,370	299,640	309,200	319,070	329,260	339,770
Administrative Overhead (10%)	248,180	256,090	264,260	272,690	281,390	290,370	299,640	309,200	319,070	329,260	339,770
Total - Estimated Cost	2,978,000	3,073,000	3,171,000	3,272,000	3,377,000	3,484,000	3,596,000	3,710,000	3,829,000	3,951,000	4,077,000

**Table A-5: CVMISHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074
	56	57	58	59	60	61	62	63	64	65	66
<i>Personnel</i>											
Reserve Land Manager	\$ 535,500	\$ 553,100	\$ 571,300	\$ 590,100	\$ 609,500	\$ 629,600	\$ 650,300	\$ 671,700	\$ 693,800	\$ 716,600	\$ 740,200
Asst. Reserve Manager (4) <sup>2</sup>	1,167,000	1,202,000	1,238,100	1,275,200	1,313,500	1,352,900	1,393,500	1,435,300	1,478,400	1,522,800	1,568,500
Ranger-Warden (2)	1,044,400	1,078,800	1,114,300	1,151,000	1,188,900	1,228,000	1,268,400	1,310,100	1,353,200	1,397,700	1,443,700
Field Crew Labor (contract)	117,500	121,400	125,400	129,500	133,800	138,200	142,700	147,400	152,200	157,200	162,400
Admin. Assistant (0.25-0.5) <sup>2</sup>	130,800	135,100	139,500	144,100	148,800	153,700	158,800	164,000	169,400	175,000	180,800
Personnel Subtotal	\$ 2,995,200	\$ 3,090,400	\$ 3,188,600	\$ 3,289,900	\$ 3,394,500	\$ 3,502,400	\$ 3,613,700	\$ 3,728,500	\$ 3,847,000	\$ 3,969,300	\$ 4,095,600
Staff per Year - Subtotal	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Personnel Cost Without Inflation	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000
<i>Equipment and Supplies</i>											
Site Protection & Maintenance	\$ 147,900	\$ 152,800	\$ 157,800	\$ 163,000	\$ 168,400	\$ 173,900	\$ 179,600	\$ 185,500	\$ 191,600	\$ 197,900	\$ 204,400
Habitat Maintenance and Rest.	22,300	23,000	23,800	24,600	25,400	26,200	27,100	28,000	28,900	29,900	30,900
Field Equipment and Supplies	80,000	82,600	85,300	88,100	91,000	94,000	97,100	100,300	103,600	107,000	110,500
Office Equipment	228,500	236,000	243,800	251,800	260,100	268,700	277,500	286,600	296,000	305,700	315,800
Public Education Services	32,300	33,400	34,500	35,600	36,800	38,000	39,300	40,600	41,900	43,300	44,700
Equipment Subtotal	511,000	527,800	545,200	563,100	581,700	600,800	620,600	641,000	662,000	683,800	706,300
Subtotal - Estimated Cost	3,506,200	3,618,200	3,733,800	3,853,000	3,976,200	4,103,200	4,234,300	4,369,500	4,509,000	4,653,100	4,801,900
10% Contingency	350,620	361,820	373,380	385,300	397,620	410,320	423,430	436,950	450,900	465,310	480,190
Administrative Overhead (10%)	350,620	361,820	373,380	385,300	397,620	410,320	423,430	436,950	450,900	465,310	480,190
Total - Estimated Cost	4,207,000	4,342,000	4,481,000	4,624,000	4,771,000	4,924,000	5,081,000	5,243,000	5,411,000	5,584,000	5,762,000

**Table A-5: CVM SHCP  
Management Program Budget -  
(Nominal \$)**

FY Ending June 30	2075 67	2076 68	2077 69	2078 70	2079 71	2080 72	2081 73	2082 74	2083 75
<i>Personnel</i>									
Reserve Land Manage	\$ 764,600	\$ 789,800	\$ 815,800	\$ 842,600	\$ 870,300	\$ 898,900	\$ 928,500	\$ 959,000	\$ 990,600
Asst. Reserve Manager (4) <sup>2</sup>	1,615,600	1,664,100	1,714,000	1,765,400	1,818,400	1,873,000	1,929,200	1,987,100	2,046,700
Ranger-Warden (2)	1,491,200	1,540,300	1,591,000	1,643,300	1,697,400	1,753,200	1,810,900	1,870,500	1,932,000
Field Crew Labor (contract)	167,700	173,200	178,900	184,800	190,900	197,200	203,700	210,400	217,300
Admin. Assistant (0.25-0.5) <sup>2</sup>	186,700	192,800	199,100	205,700	212,500	219,500	226,700	234,200	241,900
Personnel Subtotal	\$ 4,225,800	\$ 4,360,200	\$ 4,498,800	\$ 4,641,800	\$ 4,789,500	\$ 4,941,800	\$ 5,099,000	\$ 5,261,200	\$ 5,428,500
Staff per Year - Subtotal	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Personnel Cost Without Inflation	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000	538,000
<i>Equipment and Supplies</i>									
Site Protection & Maintenance	\$ 211,100	\$ 218,000	\$ 225,200	\$ 232,600	\$ 240,300	\$ 248,200	\$ 256,400	\$ 264,800	\$ 273,500
Habitat Maintenance and Rest.	31,900	32,900	34,000	35,100	36,300	37,500	38,700	40,000	41,300
Field Equipment and Supplies	114,100	117,900	121,800	125,800	129,900	134,200	138,600	143,200	147,900
Office Equipment	326,200	336,900	348,000	359,400	371,200	383,400	396,000	409,000	422,500
Public Education Services	46,200	47,700	49,300	50,900	52,600	54,300	56,100	57,900	59,800
Equipment Subtotal	729,500	753,400	778,300	803,800	830,300	857,600	885,800	914,900	945,000
Subtotal - Estimated Cost	4,955,300	5,113,600	5,277,100	5,445,600	5,619,800	5,799,400	5,984,800	6,176,100	6,373,500
10% Contingency	495,530	511,360	527,710	544,560	561,980	579,940	598,480	617,610	637,350
Administrative Overhead (10%)	495,530	511,360	527,710	544,560	561,980	579,940	598,480	617,610	637,350
Total - Estimated Cost	5,946,000	6,136,000	6,333,000	6,535,000	6,744,000	6,959,000	7,182,000	7,411,000	7,648,000

**Table A-6: Monitoring & Management Fund (Nominal \$)**

FY Ending June 30 Plan Year	2009 1	2010 2	2011 3	2012 4	2013 5	2014 6	2015 7	2016 8	2017 9	2018 10
<i>Beginning Fund Balance</i>	\$ -	\$ (138)	\$ 124,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Revenues</b>										
Landfill Tipping Fees										
Conservation Trust Fund	\$ 415,811	\$ 372,172	\$ 387,000	\$ 402,000	\$ 418,000	\$ 435,000	\$ 452,000	\$ 470,000	\$ 489,000	\$ 509,000
Eagle Mountain Open Space Trust	-	-	-	-	-	-	-	-	-	-
Other Revenues	20,000	273	-	-	-	-	-	-	-	-
Transfer From/(To) Endowment	328,553	285,960	2,040,000	774,000	1,135,000	1,314,000	982,000	798,000	1,961,000	1,343,000
Local Development Mitigation Fee Revenue	-	-	-	1,437,000	1,129,000	931,000	1,421,000	1,664,000	561,000	1,240,000
Interest Earnings <sup>1</sup>	-	-	7,000	-	-	-	-	-	-	-
<b>Total Revenues</b>	<b>\$ 764,364</b>	<b>\$ 658,405</b>	<b>\$ 2,434,000</b>	<b>\$ 2,613,000</b>	<b>\$ 2,682,000</b>	<b>\$ 2,680,000</b>	<b>\$ 2,855,000</b>	<b>\$ 2,932,000</b>	<b>\$ 3,011,000</b>	<b>\$ 3,092,000</b>
<b>Expenditures</b>										
Monitoring Program	\$ 235,304	\$ 223,147	\$ 955,000	\$ 973,000	\$ 1,004,000	\$ 964,000	\$ 995,000	\$ 1,028,000	\$ 1,061,000	\$ 1,096,000
Management Program	-	-	616,000	637,000	658,000	679,000	805,000	831,000	858,000	885,000
Adaptive Management	-	-	106,000	109,000	113,000	117,000	121,000	125,000	129,000	133,000
Management Contingency	-	-	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Administration (program-wide share)	529,198	311,235	381,000	394,000	407,000	420,000	434,000	448,000	463,000	478,000
<b>Total Expenditures</b>	<b>\$ 764,502</b>	<b>\$ 534,381</b>	<b>\$ 2,558,000</b>	<b>\$ 2,613,000</b>	<b>\$ 2,682,000</b>	<b>\$ 2,680,000</b>	<b>\$ 2,855,000</b>	<b>\$ 2,932,000</b>	<b>\$ 3,011,000</b>	<b>\$ 3,092,000</b>
<b>Net Cash Flow</b>	<b>\$ (138)</b>	<b>\$ 124,024</b>	<b>\$ (124,000)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<i>Ending Fund Balance</i>	<b>\$ (138)</b>	<b>\$ 123,886</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: All values shown in nominal dollars, i.e., including inflation at 3.29 percent annually unless otherwise noted. See text for explanation of each revenue and cost line item.

<sup>1</sup> Assumes nominal investment yield of 5.73 percent.

Sources: Tables 8-10 and 8-11; Coachella Valley Association of Governments; Riverside County; Willdan Financial Services.

**Table A-6: Monitoring & Management Fund (Nominal \$)**

**Table A-6: Monitoring & Management Fund (Nominal \$)**

[illegible]

**Table A-6: Monitoring & Management Fund (Nominal \$)**

[illegible]



**Table A-6: Monitoring &  
Management Fund (Nominal \$)**

	FY Ending June 30 Plan Year										
	2059	2060	2061	2062	2063	2064	2065	2066	2067		
	51	52	53	54	55	56	57	58	59		
<i>Beginning Fund Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Revenues											
Landfill Tipping Fees											
Conservation Trust Fund	\$ 2,539,000	\$ 2,641,000	\$ 2,747,000	\$ 2,857,000	\$ 2,971,000	\$ 3,090,000	\$ 3,214,000	\$ 3,343,000	\$ 3,477,000		
Eagle Mountain Open Space Trust	-	-	-	-	-	-	-	-	-		
Other Revenues	-	-	-	-	-	-	-	-	-		
Transfer From/(To) Endowment	-	-	-	-	-	-	-	-	-		
Local Development Mitigation Fee Revenue	7,127,000	7,338,000	7,556,000	7,780,000	8,010,000	8,247,000	8,491,000	8,742,000	9,000,000		
Interest Earnings <sup>1</sup>	-	-	-	-	-	-	-	-	-		
Total Revenues	\$ 9,666,000	\$ 9,979,000	\$ 10,303,000	\$ 10,637,000	\$ 10,981,000	\$ 11,337,000	\$ 11,705,000	\$ 12,085,000	\$ 12,477,000		
Expenditures											
Monitoring Program	\$ 4,076,000	\$ 4,210,000	\$ 4,347,000	\$ 4,489,000	\$ 4,635,000	\$ 4,786,000	\$ 4,942,000	\$ 5,103,000	\$ 5,270,000		
Management Program	3,596,000	3,710,000	3,829,000	3,951,000	4,077,000	4,207,000	4,342,000	4,481,000	4,624,000		
Adaptive Management	190,000	196,000	202,000	209,000	216,000	223,000	230,000	238,000	246,000		
Management Contingency	-	-	-	-	-	-	-	-	-		
Administration (program-wide share)	1,804,000	1,863,000	1,925,000	1,988,000	2,053,000	2,121,000	2,191,000	2,263,000	2,337,000		
Total Expenditures	\$ 9,666,000	\$ 9,979,000	\$ 10,303,000	\$ 10,637,000	\$ 10,981,000	\$ 11,337,000	\$ 11,705,000	\$ 12,085,000	\$ 12,477,000		
Net Cash Flow	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
<i>Ending Fund Balance</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		

**Table A-6: Monitoring & Management Fund (Nominal \$)**

	FY Ending June 30	2068	2069	2070	2071	2072	2073	2074	2075	2076
	Plan Year	60	61	62	63	64	65	66	67	68
<i>Beginning Fund Balance</i>	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Revenues</b>										
Landfill Tipping Fees										
Conservation Trust Fund	\$	3,616,000	\$	3,761,000	\$	3,911,000	\$	4,067,000	\$	4,230,000
Eagle Mountain Open Space Trust		-	-	-	-	-	-	-	-	-
Other Revenues		-	-	-	-	-	-	-	-	-
Transfer From/(To) Endowment		-	-	-	-	-	-	-	-	-
Local Development Mitigation Fee Revenue		9,265,000	9,537,000	9,818,000	10,107,000	10,405,000	10,710,000	11,024,000	11,346,000	11,679,000
Interest Earnings <sup>1</sup>		-	-	-	-	-	-	-	-	-
<b>Total Revenues</b>	\$	12,881,000	\$	13,298,000	\$	13,729,000	\$	14,174,000	\$	14,635,000
<b>Expenditures</b>										
Monitoring Program	\$	5,442,000	\$	5,619,000	\$	5,802,000	\$	5,991,000	\$	6,187,000
Management Program		4,771,000	4,924,000	5,081,000	5,243,000	5,411,000	5,584,000	5,762,000	5,946,000	6,136,000
Adaptive Management		254,000	262,000	271,000	280,000	289,000	299,000	309,000	319,000	329,000
Management Contingency		-	-	-	-	-	-	-	-	-
Administration (program-wide share)		2,414,000	2,493,000	2,575,000	2,660,000	2,748,000	2,838,000	2,931,000	3,028,000	3,128,000
<b>Total Expenditures</b>	\$	12,881,000	\$	13,298,000	\$	13,729,000	\$	14,174,000	\$	14,635,000
<b>Net Cash Flow</b>	\$	-	\$	-	\$	-	\$	-	\$	-
<i>Ending Fund Balance</i>	\$	-	\$	-	\$	-	\$	-	\$	-

**Table A-6: Monitoring & Management Fund (Nominal \$)**

	FY Ending June 30 Plan Year	2077 69	2078 70	2079 71	2080 72	2081 73	2082 74	2083 75	2009 - 2083 Total
<i>Beginning Fund Balance</i>	\$	-	\$	-	\$	-	\$	-	\$
<b>Revenues</b>									
Landfill Tipping Fees									
Conservation Trust Fund	\$	5,146,000	\$	5,352,000	\$	5,566,000	\$	5,789,000	\$
Eagle Mountain Open Space Trust	-	-	-	-	-	-	-	-	-
Other Revenues	-	-	-	-	-	-	-	-	20,000
Transfer From/(To) Endowment	-	-	-	-	-	-	-	-	23,966,000
Local Development Mitigation Fee Revenue	12,020,000	12,371,000	12,731,000	13,102,000	13,482,000	13,873,000	14,276,000	14,700,000	420,474,000
Interest Earnings <sup>1</sup>	-	-	-	-	-	-	-	-	7,000
<b>Total Revenues</b>	\$	17,166,000	\$	17,723,000	\$	18,297,000	\$	18,891,000	\$
<b>Expenditures</b>									
Monitoring Program	\$	7,263,000	\$	7,500,000	\$	7,744,000	\$	7,997,000	\$
Management Program	6,333,000	6,535,000	6,744,000	6,959,000	7,182,000	7,411,000	7,648,000	7,880,000	252,795,000
Adaptive Management	340,000	351,000	363,000	375,000	387,000	400,000	413,000	426,000	220,002,000
Management Contingency	-	-	-	-	-	-	-	-	14,700,000
Administration (program-wide share)	3,230,000	3,337,000	3,446,000	3,560,000	3,677,000	3,798,000	3,923,000	4,048,000	5,000,000
<b>Total Expenditures</b>	\$	17,166,000	\$	17,723,000	\$	18,297,000	\$	18,891,000	\$
<b>Net Cash Flow</b>	\$	-	\$	-	\$	-	\$	-	\$
<b>Ending Fund Balance</b>	\$	-	\$	-	\$	-	\$	-	\$

# Appendix B: Glossary

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This section contains definitions of terms used in the MSHCP and this analysis. Definitions included below were provided by CVAG.

**Acceptable Biologist:** A biologist whose name is on a list maintained by CVCC of biologist who are acceptable to CVCC, CDFG, and USFWS for purposes of conducting surveys of Covered Species.

**Acquisition and Funding Coordinating Committee:** A committee formed by the CVCC that provides input on local funding priorities and Additional Conservation Land acquisitions.

**Adaptive Management:** To use the results of new information gathered through the monitoring program of the Plan and from other sources to adjust management strategies and practices to assist in providing for the Conservation of Covered Species.

**Additional Conservation Lands:** Conserved Habitat that will contribute to Reserve System Assembly, as described in Section 4.2.2 of the MSHCP.

**Allowable Uses:** Uses allowed within the MSHCP Reserve System, as defined in Section 7.3.2 of the MSHCP.

**Annual Report (s):** The report(s) prepared pursuant to the requirements of Section 6.4 of the MSHCP.

**Area Plan:** A community planning area defined in the County of Riverside General Plan. Four County of Riverside Area Plans are located within the MSHCP Plan Area.

**Biological Corridor:** Wildlife movement area that is constrained by existing development, freeways, or other impediments. [See also "Linkage."]

**California Department of Fish and Game ("CDFG"):** A department of the California Resources Agency.

**California Department of Parks and Recreation ("State Parks"):** A department of the California Resources Agency.

**California Department of Transportation ("Caltrans"):** A department of the California Business, Transportation, and Housing Agency.

**California Endangered Species Act ("CESA"):** California Fish and Game Code, Section 2050 et seq. and all rules, regulations and guidelines promulgated thereunder, as amended.

**California Environmental Quality Act (CEQA):** California Public Resources Code, Section 21000 et seq. and all guidelines promulgated thereunder, as amended. For the MSHCP, CVAG shall be the Lead Agency under CEQA, as defined under state CEQA Guidelines Section 15367.

**Candidate Species:** "Candidate Species" means both (1) a species formally noticed by the California Fish and Game Commission as under review for listing as threatened or endangered, or a species for which the Fish and Game Commission has published a notice of proposed

regulation to add a species as threatened or endangered, and (2) a species which USFWS has identified as being a candidate for listing, but for which development of a listing regulation is precluded by other higher priority listing activities.

**Certificate of Inclusion:** The document attached as Exhibit "H" to the IA that would be required to be executed prior to a Participating Special Entity receiving Take Authorization pursuant to Section 11.7 of the IA or for other Covered Activities, as appropriate.

**Changed Circumstances:** Changes in circumstances affecting a Covered Species or geographic area covered by the MSHCP, that can reasonably be anticipated by the Parties and that can reasonably be planned for in the MSHCP. Changed Circumstances and the planned responses to those circumstances are more particularly described in Section 6.8.3 of the MSHCP. Changed Circumstances do not include Unforeseen Circumstances.

**Cities:** The cities of Cathedral City, Coachella, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage, collectively.

**Coachella Valley Association of Governments ("CVAG"):** A joint powers authority that functioned as Lead Agency for the preparation of the MSHCP.

**Coachella Valley Conservation Commission ("CVCC"):** A joint powers authority formed by the Local Permittees to provide primary policy direction for implementation of the MSHCP, as set forth in Section 6.1.1 of the MSHCP, and Section 11.2.2 of the IA.

**Coachella Valley Fringe-toed Lizard Habitat Conservation Plan ("CVFTL HCP"):** The CVFTL HCP in the Plan area, dated April 21, 1986, more particularly described in Section 16.2 of the IA.

**Coachella Valley Mountains Conservancy ("CVMC"):** A state agency within the California Resources Agency.

**Complementary Conservation:** The land projected to be acquired in the Conservation Areas for Conservation purposes independent of, but compatible with, the MSHCP, as described in Section 4.2.1 of the MSHCP.

**Conservation:** To use, and the use of, methods and procedures within the MSHCP Reserve System and within the Plan Area as set forth in the MSHCP Plan, that are necessary to bring any species to the point at which the measures provided pursuant to FESA and the California Fish and Game Code are no longer necessary. However, Permittees will have no duty to enhance, restore or revegetate MSHCP Reserve System lands unless required by the MSHCP, the IA, or agreed to through implementation of the Plan.

**Conservation Areas:** A system of lands described in Section 4.3 of the MSHCP that provides Core Habitat and Other Conserved Habitat for the Covered Species, conserves natural communities, conserves Essential Ecological Processes, and secures Biological Corridors and Linkages between major Habitat areas. There are 21 Conservation Areas from which the MSHCP Reserve System will be assembled.

**Conservation Goal(s):** A broad statement of intent that describes how the Plan will accomplish the protection of Core Habitat, Essential Ecological Processes, Biological Corridors, and Linkages

in the MSHCP Reserve System to ensure that the Covered Species are adequately conserved. Conservation Goals are also designed to ensure the persistence of natural communities.

**Conservation Level:** A numerical designation, as described in Section 2.4 of the MSHCP, assigned to all land within the Plan Area.

**Conservation Objective(s):** Measurable statements of actions or measures that will lead to attainment of the Conservation Goals.

**Conservation Strategy:** The overall approach to assure Conservation of Covered Species within the Plan Area.

**Conserved Habitat:** Land that is permanently protected and managed for the benefit of the Covered Species under the institutional arrangements that provide for its ongoing management, and under the legal arrangements that prevent its conversion to other uses.

**Core Habitat:** The areas identified in the Plan for a given species that are composed of a Habitat patch or aggregation of Habitat patches that (1) are of sufficient size to support a self-sustaining population of that species, (2) are not fragmented in a way to cause separation into isolated populations, (3) have functional Essential Ecological Processes, and (4) have effective Biological Corridors and/or Linkages to other Habitats, where feasible, to allow gene flow among populations and to promote movement of large predators.

**County:** County of Riverside

**County Flood Control:** Riverside County Flood Control and Water Conservation District

**County Parks:** Riverside County Regional Park and Open Space District

**County Waste:** Riverside County Waste Resources Management District

**Covered Activities:** Certain activities carried out or conducted by Permittees, Participating Special Entities, Third Parties Granted Take Authorization and others within the MSHCP Plan Area, as described in Section 7 of the MSHCP, that will receive Take Authorization under the Section 10(a) Permit and the NCCP Permit, provided these activities are otherwise lawful.

**Covered Species:** The species for which Take Authorization is provided through the Permits issued in conjunction with the IA. These species are discussed in Section 9 of the MSHCP, and listed in Exhibit C of the IA.

**Critical Habitat:** Habitat for species listed under FESA that has been designated pursuant to Section 4 of FESA and identified in 50 C.F.R., Sections 17.95 and 17.96.

**Development:** The uses to which land shall be put, including construction of buildings, structures, infrastructure, and all associated alterations of the land.

**Discretionary Project:** A proposed project requiring discretionary action by a Permittee, as that term is used in CEQA and defined in state CEQA Guidelines, Section 15357, including issuance of a grading permit for County projects.

**Effective Date:** Date on which the IA takes effect, as set forth in Section 19.1 of the IA.

**Emergency:** A sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate the loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soils or geologic movements, as well as such occurrences as riot, accident, or sabotage.

**Endangered Species:** Those species listed as endangered under FESA and/or CESA.

**Essential Ecological Processes:** Processes that maintain specific Habitat types and are necessary to sustain the Habitat (in a state usable by Covered Species). Essential Ecological Processes may include abiotic hydrological processes (both subsurface and surface), erosion, deposition, blowsand movement, substrate development and soil formation, and disturbance regimes such as flooding and fire; and biotic processes such as reproduction, pollination, dispersal, and migration.

**Essential Habitat:** Certain lands delineated in the Recovery Plan for Bighorn Sheep in the Peninsular Ranges, California (USFWS 2000).

**Existing Conservation Lands:** Subset of MSHCP Reserve System lands consisting of lands in public or private ownership and managed for Conservation and/or open space values that contribute to the Conservation of Covered Species, as generally depicted in Figure 4-2 of the MSHCP.

**Existing Uses:** An existing use, public or private, which is the primary use on the property.

**Feasible:** Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

**Federal Endangered Species Act (FESA):** 16 U.S.C., Section 1531 et seq. and all rules and regulations promulgated thereunder, as amended.

**Habitat:** The combination of environmental conditions of a specific place providing for the needs of a species or a population of such species.

**HabiTrak:** A GIS application to provide data on Habitat loss and Conservation, which occurs under the Permits.

**Implementing Agreement (IA):** The executed agreement that implements the terms and conditions of the MSHCP.

**Independent Science Advisors (ISA):** The qualified biologists, Conservation experts and others that provide scientific input to assist in the planning and implementation of the MSHCP for the benefit of the Covered Species, as set forth in Section 3.1.2 of the MSHCP.

**Joint Project Review Process:** The review process described in Section 6.6.1.1 of the MSHCP for Development proposed in Conservation Areas.

**Land Manager:** The entity, or entities, which has the responsibility to manage land acquired by the Permittees as set forth in Section 6.1.5 of the MSHCP.

**Land Use Adjacency Guidelines:** Standards delineated in Section 4.5 of the MSHCP for land uses adjacent to or within the Conservation Areas that are necessary to avoid or minimize edge effects. "Adjacent" means that a parcel shares a common boundary with a parcel in a Conservation Area.

**Legal Instrument:** The term "Legal Instrument," as used within the Plan and/or IA, shall refer to recorded legal instruments acceptable to the Wildlife Agencies, which provides legal protection in perpetuity to conservation lands; this legal protection may consist of a conservation easement consistent with California Civil Code Section 815 et seq. or a perpetual deed restriction that meets the requirements of a conservation easement under this statute.

**Linkage:** Habitat that provides for the occupancy of Covered Species and their movement between larger blocks of Habitat over time, potentially over a period of generations. In general, Linkages are large enough to include adequate Habitat to support small populations of the species and, thus, do not require that an individual of the species transit the entire Linkage to maintain gene flow between populations. What functions as a Linkage for one species may provide only a Biological Corridor or no value for other species. [See also "Biological Corridor."]

**Listed Species:** A species that is listed under FESA and/or CESA.

**Local Development Mitigation Fee:** The fee imposed by applicable Local Permittees on new Development pursuant to Government Code, Section 66000 et seq.

**Local Permittees:** CVCC, CVAG, County, County Flood Control, County Parks, County Waste, CVWD, IID, and the Cities.

**Major Amendments:** Those proposed amendments to the MSHCP and the IA, as described in Section 20.5 of the IA and Section 6.12.4 of the MSHCP.

**Management Program:** MSHCP management actions, as described in Section 8 of the MSHCP.

**Migratory Bird Treaty Act (MBTA):** 50 C.F.R., Section 21 et seq. and all rules and regulations promulgated thereunder, as amended.

**Migratory Bird Treaty Act (MBTA) Special Purpose Permit:** A permit issued by the USFWS under 50 Code of Federal Regulations section 21.27, authorizing Take, in connection with Covered Activities, under the MBTA of the Covered Species listed in 50 Code of Federal Regulations Section 10.13 that are also listed as endangered or threatened under FESA.

**Minor Amendments:** Minor changes to the MSHCP and the IA, as defined in Section 20.4 of the IA and Section 6.12.3 of the MSHCP.

**Mitigation Lands:** A subset of Additional Conservation Lands as described in Sections 4.1 and 4.2.2.2 of the MSHCP.

**Monitoring Program:** The monitoring programs and activities set forth in Section 8 of the MSHCP.

**Monitoring Program Administrator (MPA):** The individual or entity responsible for administering the monitoring program, as described in Section 6.1.6 of the MSHCP.

**Monitoring Reports:** Report(s) prepared pursuant to the requirements of Section 8.7 of the MSHCP.

**MSHCP:** Synonym for Plan, used in the text where needed for clarity.

**MSHCP Reserve System:** A reserve that will total approximately 745,900 acres. The MSHCP Reserve System will provide for the Conservation of the Covered Species.

**NCCP Act:** California Natural Community Conservation Planning Act of 2002 (California Fish and Game Code § 2800 et seq.) including all regulations promulgated thereunder, as amended.

**NCCP Permit:** The Permit issued under the NCCP Act for the MSHCP to permit the Take of identified species listed under CESA as threatened or endangered, a species that is a candidate for listing, and Non-listed Species.

**NEPA:** National Environmental Policy Act, (42 U.S.C., Section 4321-4335) and all rules, regulations promulgated thereunder, as amended. For the purposes of the MSHCP, USFWS is the Lead Agency under NEPA, as defined in 40 C.F.R., Section 1508.16.

**Non-Listed Species:** A species that is not listed under FESA and/or CESA.

**No Surprises Assurance:** The guarantee that, provided Permittees are properly implementing the terms and conditions of the MSHCP, the IA, and the Permit(s), the USFWS can only require additional mitigation for Covered Species beyond that provided for in the MSHCP as a result of Unforeseen Circumstances in accordance with the "No Surprises" regulations at 50 C.F.R., Sections 17.22(b)(5) and 17.32(b)(5) and as discussed in Section 6.8 of the MSHCP.

**Operation and Maintenance Activities (O&M):** Those Covered Activities that include the ongoing operation and maintenance of public facilities, as described in Section 7.3.1.1 of the MSHCP.

**Other Conserved Habitat:** Part of a Conservation Area that does not contain Core Habitat for a given species, but which still has Conservation value. These values may include Essential Ecological Processes, Biological Corridors, Linkages, buffering from edge effects, enhanced species persistence probability in proximate Core Habitat, genetic diversity, recolonization potential, and flexibility in the event of long-term Habitat change.

**Participating Special Entity:** Any regional public service provider, such as a utility company or a public district or agency, that operates and/or owns land within the MSHCP Plan Area and that applies for Take Authorization pursuant to Section 11.7 of the IA.

**Party and Parties:** The signatories to the IA, namely CVAG, CVCC, County, County Flood Control, County Parks, County Waste, the Cities, CVWD, IID, Caltrans, CVMC, State Parks, USFWS, and CDFG and any other city within the Plan Area that incorporates after the Effective Date and complies with Section 11.5 of the IA.

**Permit(s):** Collectively, the Section 10(a)(1) Permit and NCCP Permit issued by the Wildlife Agencies to Permittees for Take of Covered Species pursuant to FESA and the NCCP Act and in conformance with the MSHCP and the IA.

**Permittees:** CVAG, CVCC, County, County Flood Control, County Parks, County Waste, the Cities, CVWD, IID, Caltrans, CVMC, and State Parks.

**Plan:** Coachella Valley Multiple Species Habitat Conservation Plan, a comprehensive multiple species habitat conservation planning program that addresses multiple species' needs, including Habitat and the preservation of natural communities in the Coachella Valley area of Riverside County, California, as depicted in Figure 4-1 in Section 4.1 of the MSHCP and Exhibit "A" of the IA.

**Plan Area:** The boundaries of the MSHCP, consisting of approximately 1.2 million acres in the Coachella Valley area of Riverside County, as depicted in Figure 2-2 of the MSHCP Plan, and Exhibit B of the IA.

**Planning Agreement:** The Memorandum of Understanding prepared consistent with the NCCP Act to guide development of the MSHCP that is contained in Appendix II of the MSHCP.

**Plan Participants:** CVAG, CVCC, County, County Flood Control, County Parks, County Waste, the Cities, CVWD, IID, Caltrans, CVMC, State Parks, and others receiving Take Authorization under the Permits.

**Private Conservation Land:** Land owned by a non-governmental entity committed to Conservation in perpetuity through deed restriction, conservation easement, or other binding agreement satisfactory to CDFG and USFWS.

**Reserve Lands:** Existing Conservation Lands, Additional Conservation Lands, and Complementary Conservation.

**Reserve Management Oversight Committee (RMOC):** The committee established by the CVCC to provide biological, technical and operational expertise for implementation of the MSHCP, including oversight of the MSHCP Reserve System, as described in Section 6.1.3 of the MSHCP.

**Reserve Management Unit (RMU):** The units identified in Section 6.1.4 of the MSHCP.

**Reserve Management Unit Plan (RMUP):** The plan setting forth management practices for identified portions of the MSHCP Reserve System Area, prepared and adopted as described in Section 6.2 of the MSHCP.

**Reserve System:** A synonym for MSHCP Reserve System.

**Reserve System Assembly:** The process of conserving lands within the Conservation Areas through acquisition or other means to assemble the MSHCP Reserve System.

**Rough Step:** A Conservation Area assembly accounting process to monitor Conservation and loss of specified Habitats within the Plan Area.

**Rough Step Analysis Unit:** A geographic unit within which Rough Step is tracked. The Conservation Areas are the Rough Step Analysis Units.

**Scientific Advisory Committee (SAC):** The committee of scientists that provided scientific input into the development of the Plan, as described in Section 3.1.1.

**Section 10(a) Permit:** The permit issued by the USFWS to Permittees pursuant to 16 U.S.C., Section 1539(a), authorizing Take of Covered Species.

**Special Provisions Area:** Provisions that apply to a given location or area, identified by a location description or in a figure, which address specific conditions necessary to achieve Conservation in that location or area.

**Species Conservation Goal(s):** Goals for the Conservation of each Covered Species described in Section 9 of the MSHCP.

**State Assurances:** Except as provided in Section 15.5 of the IA, provided Permittees are implementing the terms and conditions of the MSHCP, the IA, and the Permits, if there are Unforeseen Circumstances, CDFG shall not require additional land, water or financial compensation, or additional restrictions on the use of land, water, or other natural resources for the life of the NCCP Permit without the consent of the Permittees, unless CDFG determines that continued implementation of the IA, the MSHCP, and/or the Permits would jeopardize the continued existence of a Covered Species, or as required by law and would therefore lead to NCCP Permit revocation or suspension.

**State Permittees:** Caltrans, CVMC, and State Parks.

**Take:** The definition of such term in FESA and the California Fish and Game Code. Section 9 of FESA does not prohibit Take of Federally Listed plants.

**Take Authorization:** The ability to incidentally Take species pursuant to the Section 10(a)(1)(B) Permit and/or the NCCP Permit.

**Third Party Take Authorization:** Take Authorization received by a landowner, developer, or other public or private entity from the Permittees pursuant to Section 17 of the IA, thereby receiving Take Authorization for Covered Species pursuant to the Permits.

**Threatened Species:** Those species listed as threatened under FESA and/or CESA.

**Unforeseen Circumstances:** Changes in circumstances affecting a Covered Species or geographic area covered by the MSHCP that could not reasonably have been anticipated by the Parties at the time of the MSHCP's negotiation and development, and that result in a substantial and adverse change in the status of the Covered Species. As defined, the term is intended to have the same meaning as it is used: (1) to define the limit of the Permittees' obligation on the "No Surprises" regulations set forth in 50 C.F.R., Sections 17.22 (b)(5) and 17.32 (b)(5); and (2) in California Fish and Game Code, Section 2805(k).

**United States Fish and Wildlife Service (USFWS):** An agency of the United States Department of the Interior.

**Wildlife Agencies:** USFWS and CDFG, collectively.