



MSR/SOI Report

Orange County Vector Control District

November 9, 2005





Table of Contents

I. EXECUTIVE SUMMARY	1
INTRODUCTION	1
MSR SUMMARY	2
SOI SUMMARY	2
II. INTRODUCTION	3
STATUTORY REQUIREMENTS	3
OVERVIEW OF MUNICIPAL SERVICE REVIEW (MSR) LAW—GOVERNMENT CODE §56430	3
OVERVIEW OF SPHERE OF INFLUENCE (SOI) LAW—GOVERNMENT CODE §56425	4
ENVIRONMENTAL REVIEW	4
III. AGENCY OVERVIEW	5
HISTORY OF VECTOR ABATEMENT & CONTROL	5
ORANGE COUNTY VECTOR CONTROL DISTRICT	6
OVERVIEW	6
MISSION	7
OCVCD STAFF	7
OCVCD SERVICES & PROGRAMS	9
MOSQUITO ABATEMENT PROGRAM	9
WEST NILE VIRUS SURVEILLANCE	10
RED IMPORTED FIRE ANT ERADICATION	11
RODENT-BORNE DISEASE SURVEILLANCE PROGRAM	11
PUBLIC OUTREACH PROGRAM	12
OTHER FIELD OPERATIONS	13
IV. REVIEW & ANALYSIS OF SERVICE PROVISION	14
INFRASTRUCTURE NEEDS OR DEFICIENCIES	14
GROWTH AND POPULATION PROJECTIONS	15
FINANCING CONSTRAINTS & OPPORTUNITIES	16
EVALUATION OF MANAGEMENT EFFICIENCIES	17
COST AVOIDANCE / OPPORTUNITIES FOR SHARED FACILITIES	19
OPPORTUNITIES FOR RATE RESTRUCTURING	20
GOVERNMENT STRUCTURE OPTIONS	20
LOCAL ACCOUNTABILITY & GOVERNANCE	20
V. THE NINE DETERMINATIONS	23
INFRASTRUCTURE NEEDS OR DEFICIENCIES	23
GROWTH AND POPULATION PROJECTIONS	23
FINANCING CONSTRAINTS & OPPORTUNITIES	23
COST AVOIDANCE OPPORTUNITIES	24



OPPORTUNITIES FOR RATE RESTRUCTURING	24
OPPORTUNITIES FOR SHARED FACILITIES	24
GOVERNMENT STRUCTURE OPTIONS	25
EVALUATION OF MANAGEMENT EFFICIENCIES	25
LOCAL ACCOUNTABILITY & GOVERNANCE	25
<u>VI. SPHERE OF INFLUENCE UPDATE.....</u>	<u>27</u>
RECOMMENDATIONS.....	27
<u>VII. STATEMENT OF DETERMINATIONS – ORANGE COUNTY VECTOR CONTROL DISTRICT.....</u>	<u>29</u>



EXECUTIVE SUMMARY

Introduction

The purpose of this report is to provide a comprehensive review of the municipal services provided by the Orange County Vector Control District. To comply with the requirements of the Cortese-Knox-Hertzberg Act of 2000, the following report includes the municipal service review and sphere of influence (SOI) review/update for the Orange County Vector Control District.

This report is organized into seven sections:

1. *Executive Summary* – Provides an overview of the report’s structure and content.
2. *Introduction* – Explains the statutory requirements related to municipal service and sphere of influence reviews and a summary of the environmental review required under the California Environmental Quality Act (CEQA).
3. *Agency Overview* – Presents an overview of mosquito abatement and vector control law, the history Orange County Vector Control District, and an overview of services provided by the district.
4. *Review and Analysis of Service Provision* – Thoroughly examines the Orange County Vector Control District’s structure and service provision as they pertain to the nine municipal service review (MSR) determinations required by law.
5. *The Nine Determinations* – Summarizes LAFCO staff’s nine MSR determinations based on the analysis of the Orange County Vector Control District’s structure and service provision.
6. *Sphere of Influence Update* – Provides staff analysis and recommendations related to the Orange County Vector Control District’s sphere of influence update.
7. *Statement of Determinations* – Addresses the four sphere of influence determinations that LAFCO must by law address in completing a sphere of influence review and update.



MSR Summary

The Orange County Vector Control District is the only public agency in Orange County that provides vector control, abatement, and surveillance services. The nine determinations are examined in great detail beginning on page 23 of this report. Based on its analysis of the Orange County Vector Control District's structure and service provision, LAFCO staff came to the following conclusions:

- ◆ OCVCD's infrastructure is sound and adequate for the district to provide vector control services and programs. However, the Board of Trustees recognizes the need for significant capital improvements to the district's facilities and is investigating options to renovate the current facility or acquire new land. The Board also funded a new vehicle replacement fund for the replacement of 31 district vehicles.
- ◆ OCVCD's expenditures appear to be based on efficient methods of operation. The district is fiscally solvent and has adequate revenues.
- ◆ OCVCD provides efficient and cost effective services.
- ◆ OCVCD organizational structure is sound. The district operates with a high degree of transparency and is highly accountable to the public.
- ◆ OCVCD could explore opportunities for sharing facilities and equipment with privately owned pest control companies throughout the county as a means to reduce costs.
- ◆ OCVCD is the only public agency that provides mosquito and vector control services. As such, there is no possibility of merging or reorganizing the district with any other public entity.

SOI Summary

The Orange County Vector Control District is the only public agency that provides vector control services and programs. The district's service territory and sphere of influence boundaries are coterminous with the county's boundaries. The Commission first established the district's sphere of influence on August 29, 1984 and last updated the district's sphere on December 8, 2003.

Staff recommends that the Commission re-affirm the Orange County Vector Control District's current sphere of influence. Given the fact that the Orange County Vector Control District is the county's sole public provider of vector control, abatement, and surveillance services, the district's sphere of influence, as well as its service territory, is coterminous with the county's boundaries.



INTRODUCTION

Statutory Requirements

In 2000, the State of California Legislature broadened LAFCOs authority by directing the agency to conduct comprehensive reviews of the delivery of municipal services provided in the County and any other area deemed appropriate by the Commission. Additionally, legislators directed LAFCOs to complete sphere of influence reviews and updates of agencies under LAFCO's jurisdiction not less than every five years.

Overview of Municipal Service Review (MSR) Law—Government Code §56430

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCO review municipal services before updating the spheres of influence and to prepare a written statement of determination with respect to each of the following:

1. Infrastructure needs or deficiencies;
2. Growth and population projections for the affected area;
3. Financing constraints and opportunities;
4. Cost avoidance opportunities;
5. Opportunities for rate restructuring;
6. Opportunities for shared facilities;
7. Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers;
8. Evaluation of management efficiencies; and
9. Local accountability and governance.

The MSR process does not require LAFCO to initiate changes of organization based on service review findings; it only requires that LAFCO make determinations regarding the provision of public services per Government Code Section 56430. MSRs are not subject to the provisions of the California Environmental Quality Act (CEQA) because they are only feasibility or planning studies for possible future action that LAFCO has not approved (Cal. Pub. Res. Code § 21150). The ultimate outcome of conducting a service review, however, may result in LAFCO taking discretionary action on a change of organization or reorganization.



Overview of Sphere of Influence (SOI) Law—Government Code §56425

LAFCO is also charged with adopting a sphere of influence for each city and special district within the county. A sphere of influence is a planning boundary that designates the agency's probable future boundary and service area. Spheres are planning tools used by LAFCO to provide guidance for individual proposals involving jurisdictional changes. Spheres ensure the provision of efficient services while discouraging urban sprawl and the premature conversion of agricultural and open space lands. The Cortese-Knox-Hertzberg (CKH) Act requires LAFCO to develop and determine the sphere of influence of each local governmental agency within the county, and to review and update the SOI every five years. In determining the SOI, LAFCO must address the following:

1. Present and planned land uses in the area, including agricultural and open-space lands;
2. Present and probable need for public facilities and services in the area;
3. Present capacity of public facilities and adequacy of public service that the agency provides or is authorized to provide; and
4. Existence of any social or economic communities of interest in the area if LAFCO determines that they are relevant to the agency.

Environmental Review

Municipal service reviews (MSR) are subject to the California Environmental Quality Act (CEQA) and LAFCO is the lead agency. The MSR proposal is considered Categorically Exempt from CEQA pursuant to section 15262 of the CEQA guidelines. This section exempts basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This type of exemption may be used strictly for information gathering purposes, or as part of a study leading to an action that a public agency (in this case LAFCO) has not yet approved, adopted, or funded. The information gathered for the municipal service review will not have an effect upon an environmental resource.

LAFCO is the lead agency under CEQA for sphere of influence reviews. Staff, in conjunction with legal counsel, reviewed the CEQA guidelines and recommends that the Commission consider the sphere of influence update for the Orange County Vector Control District exempt from CEQA under CEQA Local Guidelines 3.01: the sphere review is not an enactment and, therefore, not a project within the definition of "project" contained in CEQA Guidelines Section 21065. The review determined that no modification to OCVCD's existing sphere of influence, which encompasses the entirety of Orange County, is warranted.



AGENCY OVERVIEW

History of Vector Abatement & Control

To understand the purpose of organized vector control districts, one must first understand what a vector is. A vector is an organism, most typically an insect, which carries and transmits disease-causing pathogens or parasites from one host to another. Examples of common vectors in California are mosquitoes, fleas, ticks, mites, lice, flies, mice, and rats. Organisms that cause direct harm, injury, or significant annoyance to humans and animals – organisms such as the Africanized honeybee and fire ants – can also be referred to as vectors.

Throughout human history, no insect has been a more significant contributor to human discomfort, disease, and death than the mosquito. Before systematic vector control efforts were initiated by the State Legislature, California's seasonally flooded lowlands, marshes, and other wetlands were mosquito-breeding havens, producing hoards of mosquitoes that impacted the lives of millions in terms of annoyance, illness, and death.

The first organized mosquito control efforts in California began in the San Francisco area after malaria claimed the lives of 112 people in 1909. Mosquitoes were so thick that commuters wore head nets while waiting for the ferry to take them across the bay. As mosquito abatement received more attention from the public, officials began experimenting with mosquito control. Anti-malaria programs in the Central Valley received widespread press and produced positive results. Over time, research demonstrated that implementing formal mosquito control methods could reduce the spread of mosquito-borne illness and disease.

On May 25, 1915, the California legislature passed the Mosquito Abatement Act, which is contained in the California Health & Safety Code (§§2200-2398). This formed the basis for the creation, governing powers, and functions of mosquito abatement and vector control districts, enabling communities faced with serious mosquito problems to form regional abatement organizations as independent special districts.

California currently has 64 organized mosquito and vector control agencies. These agencies encompass more than 53,000 square miles of land and provide control measures for over 21 million residents through surveillance programs, vector studies, programs, and services meant to prevent and abate the occurrence of vectors and vector-borne diseases.



Orange County Vector Control District

History & Overview

Before the formation of the Orange County Vector Control District in 1947, several military bases located within the county's boundaries accomplished mosquito control in a limited way, albeit not very effectively. Following the end of the Second World War, Orange County experienced a tremendous population expansion. Public health officials grew increasingly more concerned about mosquito-borne diseases striking the county's residents.

On January 24, 1947, Dr. Edward L. Russell, the then County Health Officer, requested that the California State Director of Public Health conduct a survey of the problem and make recommendations on how the County of Orange could most effectively establish a mosquito control program. The State Director



completed the survey as requested and made the recommendation that Orange County form a countywide mosquito abatement district. While this was the first step leading to formation of the district, it was also during this time that the Santa Ana Junior Chamber of Commerce mounted a campaign to bring mosquito control to Orange County.

On July 2, 1947, the Orange County Board of Supervisors approved and adopted a resolution of formation, and the Orange County Mosquito Abatement District became a reality. E. E. Frisby, the district's first Board of Trustees President, and W. D. Obarr, first Secretary, took the unusual step of personally cosigning for a \$50,000 loan to finance district start-up costs. Mr. Frisby went on to serve as President of the Board, representing the unincorporated area of the County, for 16 years.



The Orange County Mosquito Abatement District functioned solely as a mosquito abatement district for nearly 30 years. Then, in 1975, a study of the district's efficiency commissioned by the Orange County Board of Supervisors concluded that the district could perform comprehensive vector control with a minimal addition of manpower and resources. The district added roof rat and fly control to its functions along with routine bubonic plague surveillance of the county's



ground squirrel population and accordingly changed its name to the Orange County Vector Control District (OCVCD).

The Orange County Vector Control District is the only public agency in Orange County that provides vector control programs and services. The district's service and sphere boundaries are coterminous, or identical, to the county's boundaries, making the district responsible for protecting a population of nearly 3.1 million people over 798 square miles.

A 35-member Board of Trustees governs OCVCD. The Board is comprised of an appointed member from each of Orange County's 34 cities and one county-appointed representative. The Board of Trustees' primary functions are budget oversight and the establishment of district policy. Further, the Trustees are collectively empowered to undertake and carry out a vast number of duties under the State Health and Safety Codes.

The Orange County Vector Control District's headquarters is located at 13001 Garden Grove Boulevard in Garden Grove. It is open to the public during business hours, Monday through Thursday, 7 a.m. to 4:30 p.m. and Friday 7 a.m. to 3:30 p.m.

Mission

OCVCD's Board of Trustees, management, and staff take very seriously the district's adopted mission statement:

The mission of the Orange County Vector Control District is to provide the citizens of Orange County with the highest level of protection from vectors and vector-borne diseases.

The district responds to an average of 14,000 citizen requests per year. In fulfilling its mandates, the district has committed itself to:

- *Be proactive in response to current and future vector threats.*
- *Respond effectively and courteously to the needs of the public.*
- *Inform and educate the public about the shared responsibility of vector control.*
- *Utilize the most effective and safest methods available for the control of vectors.*
- *Provide vector control services in the most cost-effective manner.*

OCVCD Staff

The Board of Trustees employs a District Manager to oversee the district's day-to-day operations and manage its 51 staff members. OCVCD's current District Manager,



Gerard Goedhart, was hired in April 2004. He is responsible for executing, enforcing, and, if necessary, interpreting the policies and guidelines established by the district's Board. Mr. Goedhart is further empowered to define the district's organizational structure and is responsible for the planning, organization, direction, evaluation, supervision, administration, and execution of district operations.

OCVCD underwent a recent reorganization, which took effect FY 2005-2006. The district eliminated two administrative positions at a cost savings of \$170,000. Concurrently, the district added additional resources to its operations division to improve the level of service and effectiveness to the public.

The district is currently organized into five divisions. *Table 3a, OCVCD Staff by Division*, demonstrates current staffing levels in each division.

Table 3a, OCVCD Staff by Division

Division	Position Title	# Employed
Management	District Manager	1
Administrative Services <ul style="list-style-type: none"> • Finance • Personnel • Risk Management 	Executive Assistant/Clerk of the Board	1
	Director of Administrative Services	1
	Accounting Supervisor	1
	Accounting Clerk	1
	Human Resources Clerk	1
Communications <ul style="list-style-type: none"> • Public Info • Technology • Legislation 	Director of Communications	1
	Public Outreach Coordinator	1
	Information Technology Coordinator	1
	Administrative Assistant	1
	Receptionist	2
Scientific Technical Services <ul style="list-style-type: none"> • Lab Services • Research 	Director of Scientific Technical Services	1
	Biologist	1
	Vector Ecologist	2
	Microbiologist	1
Operations <ul style="list-style-type: none"> • Field Ops • Vehicle Maintenance • Bldg. Maintenance 	Asst District Manager/Director of Field Ops	1
	Sr. Vector Control Inspector III	1
	Vector Control Inspector III	6
	Vector Control Inspector II	21
	Operations Support Technician	1
	Vehicle Maintenance Coordinator	1
	Vehicle Maintenance Mechanic	2
	Operations Clerk	1

The district employees' job titles demonstrate the technical and often scientific nature of the district's many functions. More than 66 percent of the district's staff members are



field staff that work in the operations division. Nearly 10 percent are employed in science and research positions in the district's technical division. The average length of service among all employees in 2004 was more than eleven and a half years.

OCVCD Services & Programs

Mosquito Abatement Program

Of the 22 species of mosquitoes existing in Orange County, several are potential disease carriers or significant biting pests. The Orange County Vector Control District's mosquito abatement program is a four-fold effort:

1. Chemical Control - Employing larvicide oils, third generation pesticides, and the juvenile hormone methoprene. These materials are directed toward the larval stage of the mosquito, although some selective adulticiding is done.
2. Biological Control - Mosquito fish reared at district headquarters are planted in aquatic mosquito breeding sources where the quality of the water is sufficient to support them.
3. Source Reduction - Reducing or eliminating an aquatic mosquito breeding source through drainage or other means of eliminating standing water.
4. Public Education - Vigorous program of public educational activities involving public and private schools, homeowners associations, civic organizations, electronic and print media, and other avenues of information dissemination.

OCVCD controls mosquitoes in the county's chronic breeding sources. While the district does some selective adulticiding, the district's mosquito abatement efforts are concentrated primarily on larviciding operations (i.e., destroying mosquito larva before they reach adulthood and can reproduce). Treatment efforts concentrated on the immature, aquatic stage of mosquito development is not only far more effective than spraying the adult population, it is environmentally sound. These operations are executed anywhere in the county there is standing water, including rural areas (i.e., county wetlands) and in developed areas where street catch basins, roadside ditches, flood channels, ravines, and similar places on the public rights-of-way offer ideal breeding grounds for mosquitoes.

The district depends heavily on the use of *Gambusia affinis*, commonly known as the "mosquito fish." The mosquito fish is a small, mosquito larva-eating fish that reproduces rapidly and births live, very active young. The district stocks thousands of these fish in





artificial lakes, reservoirs, wastewater disposal lagoons, and drainage channels countywide each year. In 2004, the district stocked 1,580 field sources and over 200 miles of flood channels throughout Orange County with 64,341 fish. Mosquito fish are not used where they can enter the natural aquatic system.

Further, the district distributes these fish to the public free of charge for use in out-of-order swimming pools, ornamental ponds, and animal water troughs. Use of the mosquito fish in this regard eliminates the need for frequent spraying with mosquito-killing insecticide. The district distributed some 556 bags (13,975 fish) of *Gambusia* to the public in 2004.

Public education is a large component of the district's mosquito abatement efforts. With 700,000 backyards in the county, public involvement is essential, even critical. By enlisting the help of the community, the district can more effectively eliminate the conditions that breed mosquitoes. Residential settings are the ideal environment mosquito breeding. Rain gutters, flowerpot saucers, ornamental ponds, tarps, and trash cans collect standing water and breed countless mosquitoes. Half of the mosquitoes produced in Orange County come from backyard sources.

Further, under State law, landowners or those responsible for water that supports development of mosquito larvae are responsible for abating existing nuisances. The district informs property owners of mosquito-breeding sources and works with them in resolving the problem.

West Nile Virus Surveillance

The West Nile virus first appeared in New York City, killing six people in 1999. Mosquitoes acquire the virus by biting an infected animal, most often a wild bird. If an infected mosquito bites a human, it can transmit the virus through its saliva.



The Orange County Vector Control District was quick to prepare for the potentially deadly virus's eventual arrival in Orange County. The district more than doubled its mosquito traps while simultaneously enhancing its surveillance program, which includes wild bird bleeding and the testing of dead birds for the virus, among other things.

By late summer 2003, the first evidence of WNV was found. Since then, the interval between spray route cycles has been cut in half. The district employs crews whose sole



task is mosquito abatement. District technicians catch and release dozens of finches and sparrows every two weeks so that their blood can be tested for West Nile and other viruses. Further, they examine and autopsy dead birds for signs of the virus. They also routinely trap adult mosquitoes and test them for presence of these viruses. The district's WNV Plan costs about \$765,000 per year.

Red Imported Fire Ant Eradication

Prompted by a call to arms issued by the California Department of Agriculture in 2000, the Orange County Vector Control District established its Red Imported Fire Ant (RIFA) Eradication Program. The district's program became an international model in the four



years of its existence, drawing visitors from all around the world due to its 95 percent success rate and minimal rate of reinfestation following treatment.

Funding for RIFA eradication ended in 2003 due to the State's financial crisis, and fire ants have since recolonized Orange County, essentially undoing four years of effort. In June 2004, the district asked Orange County property owners if

they would be willing to pay the equivalent of \$5.41 per single-family dwelling to restore the RIFA program and enhance basic vector control functions. Support was overwhelming; 68.9% of the ballots returned were marked "yes." The district, along with private pest control operators with which the district partners, has resumed work towards controlling the spread of the red imported fire ant and eliminating already established ant colonies. It estimates the cost of such efforts to be around \$2.7 million annually.

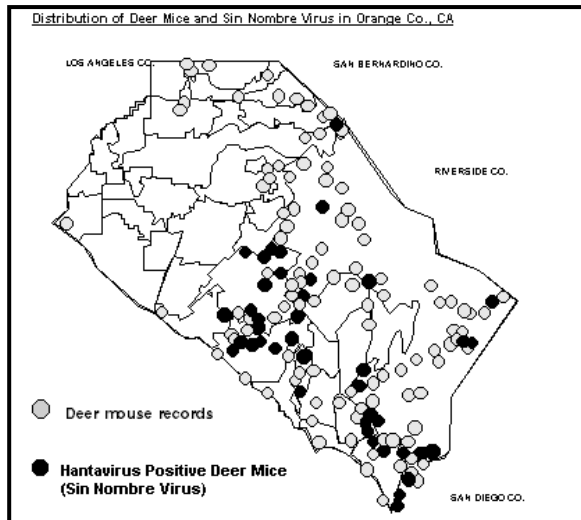
Rodent-Borne Disease Surveillance Program

Rodents carry bacteria and viruses that can be harmful and even deadly to humans. The two most common rodent-borne diseases are bubonic plague and hantaviruses.

Plague is a natural occurring bacterial disease associated with wild rodents and fleas. Ground squirrels and pack rats are also known carriers of plague bacteria. The district routinely traps ground squirrels at parks and historic plague sites. Field personnel draw blood samples and brush the animals for fleas. The district later tests the blood for plague antibodies and the fleas for plague bacteria.



Hantavirus is a viral pathogen found in rodents, particularly deer mice, a species very



common in Orange County. The virus, acquired by humans through the inhalation of the host vector's feces or urine, affects lung tissue, producing an often fatal pneumonia. (Mortality rates are around 50 percent.) The virus occurs naturally with deer mice and rarely in packrat populations. The district traps and takes blood samples from both deer mice and packrats throughout the county.

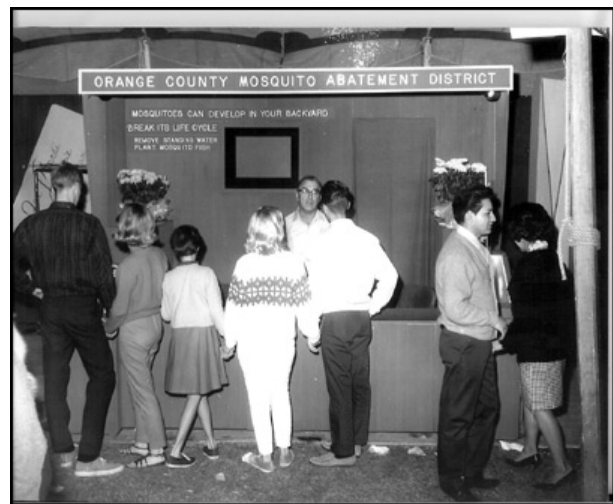
The identification of disease-carrying rodent populations enables the district to better protect the public from such disease.

Public Outreach Program

Public education is an essential, even critical, component of the Orange County Vector Control's efforts and the district has a long history of public engagement beginning at the district's very inception.

In 2004, district employees participated in more than 90 outreach events in nearly every community throughout the county. District employees attended numerous homeowner association meetings, health fairs, service clubs, and special community events like the Orange County Fair. The district reported that the community's level of participation in these outreach efforts in 2004 represented a 300 percent increase over 2003. These interactions with the public enabled district staff to interact with almost one million people countywide.

The district also engages in a city outreach program, through which district staff delivers brief presentations to Orange County's city councils. In 2004, district staff made formal presentations to 16 of the county's 34 city councils and attended many other council meetings as spectators. In 2005, district staff made presentations to all 34 city councils countywide.





Other Field Operations

In addition to its proactive abatement and surveillance programs, the Orange County Vector Control District responds to service requests from the general public. The actual number of direct service requests from the public fluctuates each year depending on weather conditions and other factors, but the district's field operations staff responded to 23,100 in 2004.

Of the 23,100 service requests in 2004, roof rat requests were the most frequent with a grand total of 12,881 requests. The roof rat is the major problem species in Orange County, as it has adapted readily from the vast acres of citrus orchards, which at one time made up most of central Orange County, to residential backyards where many fruit trees still exist providing food for the rats. This species primarily nests in dense vegetation.



The district approaches roof rat control much the same way it does other vector species, using an integrated approach that couples public education with vector abatement and eradication. The district motivates homeowners to reduce or eliminate sources of food and water from their properties as well as nesting harborage, such as dense ivy, bougainvillea, and untrimmed palm trees. Public education efforts are augmented by selective placement of anticoagulant rodenticides.



REVIEW & ANALYSIS OF SERVICE PROVISION

This section of the report addresses the nine determinations in accordance with Government Code Section 56430. The determinations are statements that draw conclusions, based on data related to agency operations and services, infrastructure, population and growth projections, and fiscal data. The nine municipal service review determinations are interdependent and some of the issues related to each of the nine determinations may overlap.

Infrastructure Needs or Deficiencies

This determination addresses the adequacy of existing and planned infrastructure needed to accommodate future growth and the efficient delivery of public services. It refers to the status of existing and planned infrastructure and its relationship to the quality and levels of service provided by the district.



The OCVCD Board of Trustees and District Manager recognize the need for significant capital improvements to the district's facilities in the coming year. The FY 2005-2006 budget identified that the "current campus is not adequate for the district's operation." The Board of Trustees authorized the transfer of \$1,800,000 towards the facility improvement fund in FY 2005-2006. These funds will be used to redevelop the

district's current site or acquire adjacent land for the district's use. District staff is researching options, which will be reviewed by the Board of Trustees in early 2006.

The Orange County Vector Control District offers services that are not provided by any other public agency in the county. Given the nature of vector control and abatement, the majority of the district's operations are field operations. The district therefore maintains a fleet of land and watercraft vehicles and bio-rational dispersal equipment, which is accessible to its staff in carrying out the district's mandates out in the field.



The district's fleet of vehicles numbers 85, with 70 pick-up trucks, 1 sedan, 10 sports utility vehicle, 1 amphibious vehicle, 2 golf carts, and 1 four-track cycle. The district's vehicles were driven a total of 592,769 miles in 2004 alone. The district recently went four years without purchasing any new vehicles.

Recognizing the mission-critical nature of the district's vehicle fleet, the district's Board of Trustees established and funded a new vehicle replacement fund in FY 2003-2004. This fund will provide for the replacement of 31 vehicles in FY 2005-2006. A vehicle replacement schedule is under development.

Growth and Population Projections

Orange County changed from a largely agricultural and rural area to a prosperous urban area in just two decades. With this transition, mosquito breeding habitats have also diversified. The pastures, dairy farms, truck gardens, and orchards of the past are now the housing developments, resorts, tourist attractions, and commercial operations for which the county has become famous.

In terms of population, Orange County is the second largest county in California and is second in density just behind the County/City of San Francisco. Orange County currently has over three million residents and is expected to grow to 3.5 million people by the year 2020.



The county has a wide variety of land uses, including open space, rural and urbanized residential, industrial, and commercial. As the county becomes more built-out over the next decade and a half, one might expect a decrease in the need for vector control services such as mosquito abatement. The opposite is true. Many mosquito breeding sources are directly related to the county's urbanization. Flood channels, off-street drains, catch basins, ornamental fishponds, and neglected swimming pools have replaced the rural mosquito habitat of 25 years ago. In fact, half of the mosquitoes produced in Orange County come from backyard sources. Residential settings are the ideal environment mosquito breeding. Rain gutters, flowerpot saucers, tarps, and trash cans collect standing water and breed countless mosquitoes. Mosquitoes, in turn, are capable of spreading diseases such as West Nile Virus, encephalitis, and malaria.

Further, vectors are very adaptable creatures. Like mosquitoes, vectors such as mice and rats thrive in populated areas, requiring only food, water and shelter. Vertebrate



vectors like mice, rats, and ground squirrels can carry the plague and hantaviruses, both of which can cause illness and death in humans. The proximity of such disease-carrying vectors to human populations is reason for continued diligence.

The Orange County Vector Control District appears capable of providing services that can accommodate the county's growth and population projections. An operational plan for south Orange County growth is under development. It is likely that the district will funnel more of its resources into its educational programs, as vector control (particularly in developed areas) is a community responsibility.



Financing Constraints & Opportunities

Prior to Proposition 13, the California Health and Safety Code allowed vector and mosquito control districts to set a tax rate sufficient to fund their proposed budgets. Since the passage of Proposition 13 in 1978, the Orange County Vector Control District receives its portion of the 1% of Proposition 13 property tax revenue allocated to the county's special districts, its primary source of revenue. OCVCD's portion of the Prop 13 property tax revenue is \$3,201,440 annually.

To ease state revenue shortfalls, the state required OCVCD (and all other California special districts) to return a portion of its property tax revenue to the state's coffers in fiscal years 2004-2005 and 2005-2006. OCVCD returned a total of \$2.6 million this fiscal year and estimates it will return nearly \$2.9 million next fiscal year.

In addition to property taxes, the district receives revenues from special assessments, state subventions, and interest income. The district's revenues in FY 2003-2004 totaled \$5,826,790. The district does not charge fees for any of its services.

In July 2004, Orange County property owners approved a new benefit assessment to the district, agreeing to pay the equivalent of \$5.41 per single-family dwelling to enhance basic vector control functions and provide a stable local funding source for the county's current vector-related public health issues. Support was overwhelming; 68.9% of the ballots returned were marked "yes."

As demonstrated in *Table 4a, OCVCD Revenues vs. Expenses*, OCVCD is currently in a stable financial position.



Table 4a, OCVCD Expenses vs. Revenues

OCVCD – Operating Revenues vs. Expenses (FY 2003- 2004)			
REVENUES:			
Property Taxes:	\$		3,201,440
Assessments:	\$		1,483,000
State Subventions:	\$		80,000
Interest	\$		116,850
Other:	\$		945,500
TOTAL REVENUE:	\$		5,826,790
EXPENSES:			
Employee Salaries/Benefits:	\$		3,545,686
Services & Supplies:	\$		1,806,157
Taxes & Assessments:	\$		12,000
Capital Outlay:	\$		90,000
TOTAL EXPENSES:	\$		5,453,843
TOTAL REVENUE:	\$		5,826,790
TOTAL EXPENSES:	\$		5,453,843
FY 2003-2004 SURPLUS:	\$		372,947

***SOURCE:** OCVCD's 2004 Annual Report*

In preparing the FY 2005-2006 budget, the District Manager prepared the budget by department in order to report more in-depth expenditure detail to the Board of Trustees. The budget also included district goals and objectives to demonstrate the district's direction and performance measurements to help the Board and the public evaluate the district's effectiveness in achieving its agreed upon goals.

Evaluation of Management Efficiencies

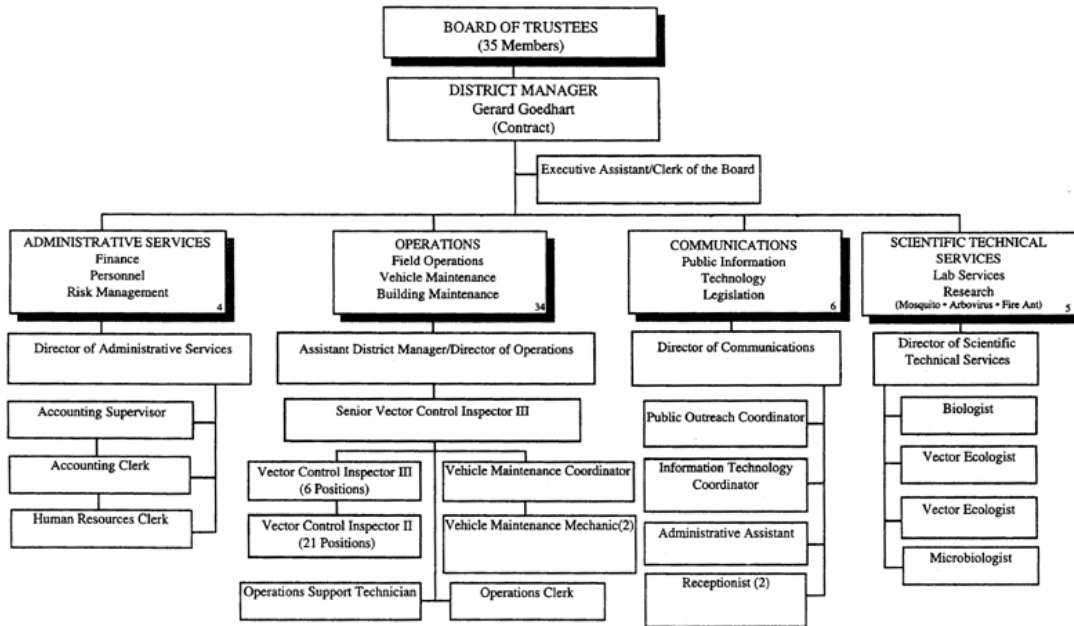
The Orange County Vector Control District evaluated its management efficiencies in 2004 and enacted some improvements as a result.

Firstly, the district reorganized in 2005. The reorganization resulted in the elimination of two administrative positions, saving the district \$170,000 annually. Additionally, the reorganization improved the level and effectiveness of the district's public service by augmenting field operations, the district's most mission-critical function

Figure 4b, OCVCD Organizational Chart, demonstrates the district's current organizational structure. The district's staffing is efficient and enables the district to effectively fulfill its mandates.

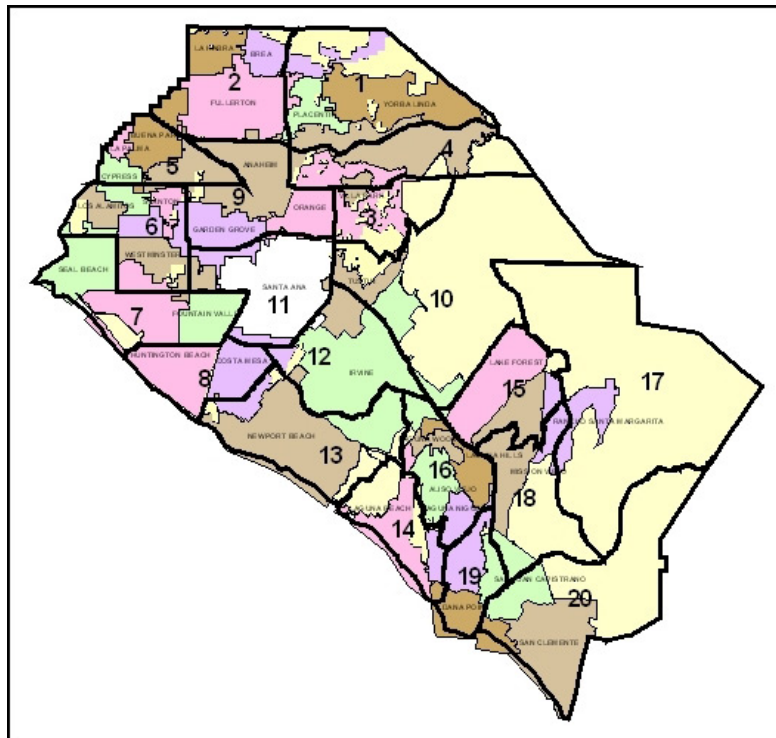


Figure 4b, OCVCD Organizational Chart



Additionally, the district reapportioned its zoning for field operations and added four new zones, which is depicted in *Figure 4c*.

Figure 4c, OCVCD Field Operations Zoning





The district last apportioned its zones in the 1970s. The county's population has since doubled. Prior to the zone modifications and additions, field operations' resources were spread fairly thin, particularly in south Orange County given the development that has occurred since the district last apportioned its zones. The zoning changes have enabled the district's field operations division to function considerably more effectively.

Cost Avoidance / Opportunities for Shared Facilities

While these are two separate determinations, cost avoidance and facilities sharing are inter-related, as sharing facilities is often a cost avoidance tactic.

The Orange County Vector Control District charge is to protect public health by controlling rats, flies, mosquitoes, fire ants, and other vector-related problems. Mosquito abatement efforts are a large part of the district's focus. The district controls costs while increasing the effectiveness of its efforts by targeting mosquito efforts on larvicide, or killing the immature mosquito at its aquatic larval stage. The district also controls cost by enlisted the help of the public in vector control efforts countywide.

All of OCVCD's expenditures appear to be based on efficient methods of operation. The majority of costs associated with district operation and service provision are related to staff salaries and benefits. In this regard, OCVCD has 51 full-time employees and has done what it can to minimize staffing costs while retaining a capable and knowledgeable work force. For instance, the district reorganized in 2005 and, in doing so, eliminated two administrative positions while adding additional resources to its operations department. The benefit was two-fold: 1) it resulted in a cost savings of \$170,000; and 2) it improved the level and effectiveness of the district's public service by augmenting field operations, the district's most mission-critical function.

OCVCD is a member of the Mosquito and Vector Control Association of California (MVCAC). This association has 61 member agencies, most of which are special districts. Other members are city and county health departments and county pest and vector control programs. This puts the district in a unique position to both receive and share information and educational materials with other agencies throughout the state.

The district works closely with a variety of other agencies, as well. At the state level, the California Department of Health Services, Vector Surveillance and Control Branch, provides support services for the district's disease surveillance activities, as well as a wide variety of consultant services. The California Department of Transportation contracts with the district for rat control on freeway rights-of-way. The University of California is an important source of research information for local vector control agencies.



At the local level, the County Flood Control District, Solid Waste Management, Water Districts, Agricultural Commissioner, and others agencies are important daily contacts. The district provides vector biology and control training for all Orange County Environmental Health specialists and has established a very close working relationship with that department.

The district also works closely with city planning departments and code enforcement agencies for vector prevention and control. The district is also a member of the American Mosquito Control Association.

Regarding other cost avoidance mechanisms, the district's unique mandate makes it difficult for the district to share facilities, equipment, staff, etc. with other public agencies. However, OCVCD often partners with private pest control services to increase its effectiveness with programs such as red fire ant eradication.

Opportunities for Rate Restructuring

The Orange County Vector Control District is the only agency in Orange County that provides mosquito and vector control services. OCVCD is primarily funded by its portion of the county's property tax revenue. Its budget is focused on efforts to prevent and abate vector-borne diseases and the vectors that carry them. The district appears to be operating efficiently and is able to provide service in variety of environments, ranging from rural to residential to urban.

The district's primary source of revenue is property taxes. The district additionally receives revenues from special assessments, state subventions, and interest income. Its revenues in FY 2003-2004 totaled \$5,826,790. The district does not charge fees for its services.

Government Structure Options

The Orange County Vector Control District is the only public agency that provides mosquito and vector control services. As such, there is no possibility of merging or reorganizing the Orange County Vector Control District with any other public entity.

Local Accountability & Governance

A 35-member Board of Trustees appointed by each of the county's 34 cities governs the Orange County Vector Control District. Each city appoints one person from its city council to serve either a two- or four-year term on the OCVCD Board of Trustees. The County Board of Supervisors appoints the district's thirty-fifth Trustee to represent the unincorporated areas of the district. *Table 4d, OCVCD Board of Trustees*, details the current composition of the district's Board.



Table 4d, OCVCD Board of Trustees

City	Board Trustee	Term Exp.	Compensation
Aliso Viejo	Karl Warkomski	12/31/2006	<p style="text-align: center;">\$100 per month, regardless of how many meetings or events the Trustee attends</p> <p style="text-align: center;">Necessary expenses for traveling in connection with Board business (e.g., meetings, conferences, etc.)</p> <p style="text-align: center;">Board expenses for FY 2004-2005 were \$39,000</p>
Anaheim	Dr. John Baird	12/31/2005	
Brea	Roy Moore	12/31/2005	
Buena Park	Jim Dow	12/31/2006	
Costa Mesa	Charles Gleason	12/31/2006	
Cypress	Sandra Montez	12/31/2007	
Dana Point	Wayne Rayfield	12/31/2006	
Fountain Valley	Cheryl Brothers	12/31/2005	
Fullerton	Don Bankhead	12/31/2005	
Garden Grove	Dr. Sheldon S. Singer	12/31/2008	
Huntington Beach	Dr. Peter Green	12/31/2007	
Irvine	Rosemary Dugard	12/31/2005	
Laguna Beach	Grant McCombs	12/31/2006	
Laguna Hills	Natalie "Lee" Klein	12/31/2005	
Laguna Niguel	Marc W. Winer	12/31/2006	
Laguna Woods	Dr. Robert Bouer	12/31/2006	
La Habra	James Gomez	12/31/2006	
Lake Forest	Jean D. Jambon	12/31/2007	
La Palma	Larry A. Herman	12/31/2005	
Los Alamitos	Alice Jempsa	12/31/2007	
Mission Viejo	Syndey H. Gordon	12/31/2005	
Newport Beach	Dr. Virginia L. Barrett	12/31/2006	
Orange	Steve F. Ambriz	12/31/2005	
Placentia	Constance Underhill	12/31/2006	
Rancho Sta Margarita	Gary Thompson	12/31/2005	
San Clemente	Joe Anderson	12/31/2005	
San Juan Capistrano	David M. Swerdlin	12/31/2006	
Santa Ana	Fred S. Bella	12/31/2005	
Seal Beach	Michael Levitt	12/31/2008	
Stanton	Al Ethans	12/31/2006	
Tustin	Doug Davert	12/31/2007	
Villa Park	William Oliva	12/31/2007	
Westminster	Frank Fry Jr.	12/31/2006	
Yorba Linda	Jim Winder	12/31/2006	
County of Orange	R. Paul Webb	12/31/2008	

The Board of Trustees convenes on the third Thursday of each month at 3 p.m. at the district office. Its meetings are open to the public in held in accordance with the Brown Act. The Board elects a President, Vice President, and Secretary each January.



OCVCD's Board of Trustees employs a District Manager who has full authority and responsibility for the district's day-to-day operations, which include the administration and control of revenues and expenditures, execution of district policies and procedures, and overall management of the district's 51 full-time employees.

The Orange County Vector Control District produces a wide variety of hand-outs and brochures for dissemination to the public. Public education is an essential, even critical, component of the Orange County Vector Control's efforts. In 2004, district employees participated in more than 90 outreach events in nearly every community throughout the county. The district reported that the community's level of participation in these outreach efforts in 2004 represented a 300 percent increase over 2003. These interactions with the public enabled district staff to interact with almost one million people countywide.

Further, OCVCD maintains its own public website at <http://www.ocvcd.org>. The website features easily accessible general information about the district and its various programs. It also highlights budget summaries and information on the Board of Trustees, including a listing of Board members, and the Board's agendas and minutes going back to 2003. The district could improve its website by including the following statement on its District Business page: "The Board of Trustees meets regularly on the third Thursday of each month at 3 p.m. at the district office."





THE NINE DETERMINATIONS

Infrastructure Needs or Deficiencies

The Orange County Vector Control District's infrastructure is sound and adequate for the district to serve the county. However, the Board of Trustees and District Manager recognize the need for significant capital improvements to the district's facilities in the coming year and authorized the transfer of \$1,800,000 towards the facility improvement fund in FY 2005-2006. These funds will be used to redevelop the district's current site or acquire adjacent land for the district's use.

Given the nature of vector control and abatement, the majority of the district's operations are field operations. The district therefore maintains a mission-critical fleet of land and watercraft vehicles and bio-rational dispersal equipment. The district recently went four years without purchasing any new vehicles. However, the district's Board of Trustees established and funded a new vehicle replacement fund in FY 2003-2004. This fund will provide for the replacement of 31 vehicles in FY 2005-2006. A vehicle replacement schedule is under development.

Growth and Population Projections

The Orange County Vector Control District serves the entirety of Orange County by providing vector control and abatement services. Orange County currently has over three million residents and is expected to grow to 3.5 million people by the year 2020. With this growth and development, there will be a corresponding increase in the need for mosquito and vector control services to protect the public health.

Staff did not identify any issues related to growth and population projections.

Financing Constraints & Opportunities

The Orange County Vector Control District's revenues are adequate to provide vector control and abatement services for the county. The district is financially solvent and operates efficiently. In addition to property taxes, the district receives revenues from special assessments, state subventions, and interest income. Its revenues in FY 2003-2004 totaled \$5,826,790.

To ease state revenue shortfalls, the state required OCVCD (and all other California special districts) to return a portion of its property tax revenue to the state's coffers in



fiscal years 2004-2005 and 2005-2006. OCVCD returned a total of \$2.6 million this fiscal year and estimates it will return nearly \$2.9 million next fiscal year.

In July 2004, Orange County property owners overwhelmingly approved a new benefit assessment to the district, agreeing to pay the equivalent of \$5.41 per single-family dwelling to enhance basic vector control functions and provide a stable local funding source for the county's current vector-related public health issues.

Funding is adequate for the current levels of service. Staff did not identify any issues related to financing constraints and opportunities.

Cost Avoidance Opportunities

All of the Orange County Vector Control District's expenditures appear to be based on efficient methods of operation. The majority of costs associated with district operation and service provision are related staff salaries and benefits. The district has been diligent in minimizing costs in this regard. Case in point, the district reorganized in 2005 and, in doing so, eliminated two administrative positions while adding additional resources to its operations department. The benefit was two-fold: 1) it resulted in a cost savings of \$170,000; and 2) it improved the level and effectiveness of the district's public service by augmenting field operations, the district's most mission-critical function.

Staff did not identify any significant cost avoidance opportunities.

Opportunities for Rate Restructuring

The Orange County Vector Control District is the only public agency in Orange County that provides mosquito and vector control services. OCVCD is primarily funded by its portion of the county's property tax revenue. Its budget is focused on efforts to prevent and abate vector-borne diseases and the vectors that carry them. The district charges no fees for its services

Opportunities for Shared Facilities

The Orange County Vector Control District is the only public agency in Orange County that provides mosquito and vector control services.

The district works closely with a variety of other agencies at the state level, offering contractual services and collaborative assistance to the California Department of Health Services, the California Department of Transportation, and the University of California is an important source of research information for local vector control agencies. Further, the district provides vector biology and control training for all Orange County Environmental Health specialists and has established a very close working relationship



with that department. The district also works closely with city planning departments and code enforcement agencies for vector prevention and control.

The district could explore opportunities for sharing facilities and equipment with privately owned pest control companies throughout the county as a means to reduce costs.

Government Structure Options

The Orange County Vector Control District is the only public agency that provides mosquito and vector control services. As such, there is no possibility of merging or reorganizing the district with any other public entity.

Evaluation of Management Efficiencies

The Orange County Vector Control District's organizational structure is sound and efficient. A 35-member Board of Trustees appointed by the county's 34 city councils and the Orange County Board of Supervisors governs the district. The Board employs a District Manager who has full authority and responsibility for the district's daily operations and overall management of the district's 51 full-time staff.

The district reorganized in 2005 and, in doing so, eliminated two administrative positions while adding additional resources to its operations department. The reorganization resulted in a cost savings of \$170,000 and improved the level and effectiveness of the district's public service by augmenting field operations, the district's most mission-critical function.

Further, the district recently reapportioned zoning for its field operations and added four new zones, thereby enabling the district's field operations division to function considerably more effectively

Staff did not identify any issues regarding the district's management efficiencies.

Local Accountability & Governance

The Orange County Vector Control District's 35-member Board of Trustees is collectively appointed by Orange County's 34 city councils and the County Board of Supervisors. This makes the Board equally accountable to all of the cities and the county as well as to residents countywide. All district meetings are conducted in public in accordance with the Brown Act.

Public education is an essential, even critical, component of the Orange County Vector Control's efforts. The district produces a wide variety of hand-outs and brochures for



dissemination to the public and annually participates in a significant number of outreach events in nearly every community throughout the county.

Further, OCVCD maintains a well-organized and informative public website at <http://www.ocvcd.org>. The website features easily accessible general information about the districts and its various programs. It also highlights budget summaries and information on the Board of Trustees, including a listing of Board members, and the Board's agendas and minutes going back to 2003. The district could improve its website by including the following statement on its District Business page: "The Board of Trustees meets regularly on the third Thursday of each month at 3 p.m. at the district office."



SPHERE OF INFLUENCE UPDATE

Government Code Section 56425 identifies the following factors that should be considered by LAFCO when determining an agency's sphere of influence:

1. The present and planned land uses in the area, including agricultural and open-space lands.
2. The present and probable need for public facilities and services in the area.
3. The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.
4. The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

The Orange County Vector Control District is the only public agency in Orange County that provides vector control programs and services. The district's service and sphere boundaries are coterminous, or identical, to the county's boundaries, making the district responsible for protecting a population of nearly 3.1 million people over 798 square miles.

The Commission first established OCVCD's sphere of influence on August 29, 1984 and last updated the district's sphere on December 8, 2003. On November 12, 2003, LAFCO approved the annexation of two tax rate areas totaling approximately 133 acres located in the City of Fullerton to the district. The tax rate areas had been inadvertently excluded from the district when it was originally formed in 1947. Following LAFCO's approval of the annexation, OCVCD's service area spanned the entire county.

The statement of determinations that follows is based on the analysis of the Orange County Vector Control District's municipal service provision, which precedes this section of the report.

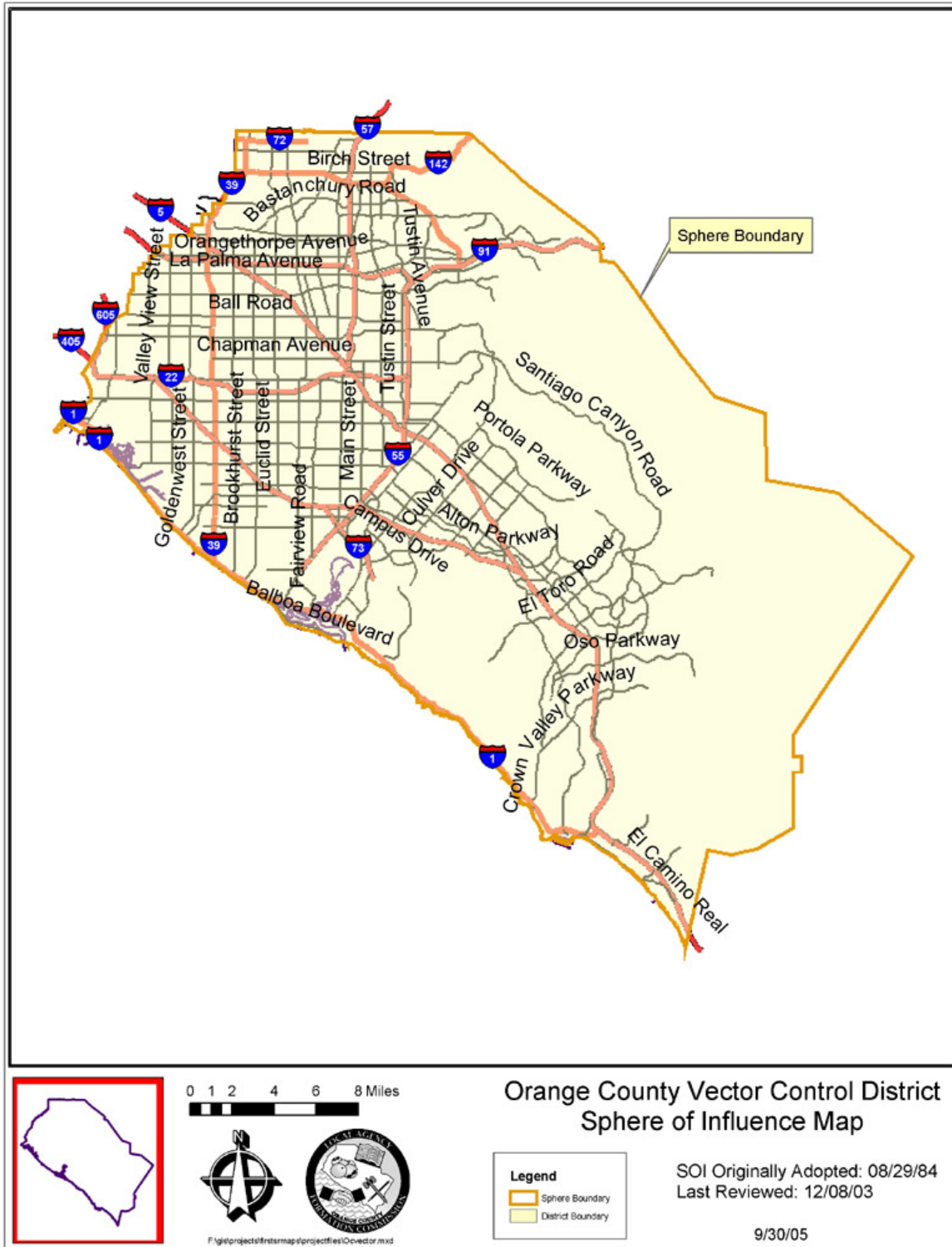
Recommendations

Staff recommends that the Commission re-affirm the Orange County Vector Control District's current sphere of influence. Given the fact that the Orange County Vector Control District is the county's sole public vector control district, the district's sphere of



influence, as well as its service territory, is coterminous with the county's boundaries.
 (See Figure 6a, OCVCD Map.)

Figure 6a, OCVCD Map





STATEMENT OF DETERMINATIONS – ORANGE COUNTY VECTOR CONTROL DISTRICT

The present and planned land uses in the area, including agricultural and open-space lands

The Orange County Vector Control District's service territory includes all of Orange County. The district's boundaries are contiguous with those of the county. Land use throughout the county is varied and includes residential (single- and multi-family), commercial, industrial, public/semi-public, park and recreation, and open space. While some areas of the county are projected to experience more growth and development than other areas, the need for countywide vector abatement will not diminish.

The present and probable need for public facilities and services in the area

The need for vector control services and programs is necessary to protect the public from vector-borne disease. The Orange County Vector Control District is the only public agency that provides such services within Orange County.

The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide

The present capacity and adequacy of vector abatement services in the county are at levels necessary to protect the public. The Orange County Vector Control District is the only public agency that provides such services within Orange County.

The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency

There is a general community of interest countywide that the public receive as much protection as possible from vector-borne disease, illness, and annoyance. The Orange County Vector Control District's sphere of influence is coterminous with the county's



boundaries, as is the district's service territory. The district has displayed the ability to provide those services required by law and appears capable of continuing to do so for the foreseeable future.