



MSR/SOI Report

Orange County Sanitation District

May 9, 2007





Table of Contents

EXECUTIVE SUMMARY	1
INTRODUCTION	1
MSR SUMMARY	2
SOI SUMMARY	2
INTRODUCTION	4
STATUTORY REQUIREMENTS	4
ENVIRONMENTAL REVIEW	5
AGENCY OVERVIEW	6
HISTORY OF ORANGE COUNTY SANITATION DISTRICT	6
PLANNING ACTIVITIES	7
FACILITIES	8
COLLECTION SYSTEM	9
TREATMENT PLANT SYSTEM.....	11
OUTFALL SYSTEM.....	11
BIOSOLIDS PROGRAM.....	12
OCSD ORGANIZATION AND STAFF	13
FINANCES.....	13
BUDGET	14
REVENUE	16
GOVERNANCE	17
PUBLIC OUTREACH	18
REVIEW & ANALYSIS OF SERVICE PROVISION	19
1. INFRASTRUCTURE NEEDS OR DEFICIENCIES	19
2. GROWTH AND POPULATION PROJECTIONS	21
3. FINANCING CONSTRAINTS & OPPORTUNITIES.....	22
4. COST AVOIDANCE OPPORTUNITIES	25
5. OPPORTUNITIES FOR RATE RESTRUCTURING	26
6. OPPORTUNITIES FOR SHARED FACILITIES	26
7. GOVERNMENT STRUCTURE OPTIONS	27
(A) PROVISION OF LOCAL SEWER SERVICE FOR UNINCORPORATED AREAS	27
(B) FUNDING OF LOCAL SEWERS BY OCSD	28
(C) ANNEXATIONS	29
(D) AREAS ON SEPTIC SYSTEMS.....	32
(E) CONSOLIDATION OF SERVICE AREAS	33
8. EVALUATION OF MANAGEMENT EFFICIENCIES	34
9. LOCAL ACCOUNTABILITY AND GOVERNANCE	34



<u>THE NINE DETERMINATIONS</u>	<u>36</u>
1. INFRASTRUCTURE NEEDS OR DEFICIENCIES	36
2. GROWTH AND POPULATION PROJECTIONS	36
3. FINANCING CONSTRAINTS & OPPORTUNITIES	37
4. COST AVOIDANCE OPPORTUNITIES	37
5. OPPORTUNITIES FOR RATE RESTRUCTURING	37
6. OPPORTUNITIES FOR SHARED FACILITIES	37
7. GOVERNMENT STRUCTURE OPTIONS	38
8. EVALUATION OF MANAGEMENT EFFICIENCIES	40
9. LOCAL ACCOUNTABILITY AND GOVERNANCE	40
<u>SPHERE OF INFLUENCE UPDATE.....</u>	<u>41</u>
<u>STATEMENT OF DETERMINATIONS – ORANGE COUNTY SANITATION DISTRICT..</u>	<u>43</u>



EXECUTIVE SUMMARY

Introduction

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

This report is organized into seven sections:

- I. *Executive Summary* – Provides an overview of the report’s structure and content.
- II. *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).
- III. *Agency Overview* – Presents an overview of the history and function of the Orange County Sanitation District (OCSD).
- IV. *Review and Analysis of Service Provision* – Thoroughly examines the Orange County Sanitation District’s structure and service provision as they pertain to the nine municipal service review (MSR) determinations required by law.
- V. *The Nine Determinations* – Summarizes LAFCO staff’s nine MSR determinations based on the analysis of the Orange County Sanitation District’s structure and service provision.
- VI. *Sphere of Influence Update* – Provides staff analysis and recommendations related to the Orange County Sanitation District’s sphere of influence update.
- VII. *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 Sanitation District provides regional wastewater collection, treatment and disposal facilities for 21 cities and 3 special districts with a combined population of over 2.5 million in a 471 square mile service area. The nine determinations are examined beginning on page 17 of this report. Based on its analysis of the Orange County Sanitation District's structure and service provision, LAFCO staff came to the following conclusions:

- OCSD's infrastructure is sufficient to meet all current regulatory requirements. However, changes in regulations, increased population and deteriorating facilities require a significant investment in new and renovated capital facilities over the next 15 years.
- OCSD's expenditures and capital improvement program are founded on long range planning and analysis programs. The District is fiscally solvent and will remain so as long as the planned increases in regional user fees are implemented on schedule.
- OCSD provides efficient and cost effective regional services.
- OCSD's organizational structure appears to be sound and it operates with a high degree of transparency and accountability to the public.
- OCSD currently owns and operates local sewers in a few areas; however, the District has expressed a desire to terminate provision of local sewer service. It may be more logical for sewer service to be provided to these areas by adjacent cities or nearby water or sanitary districts where applicable.
- There are areas within OCSD's sphere of influence where failures of existing on-site wastewater systems (septic systems) are occurring. These areas are in the County of Orange's unincorporated islands, and there is a need for local sewer connections. However, today there are no institutional mechanisms in place to provide for these services.

SOI Summary

The Orange County Sanitation District provides regional wastewater collection, treatment and disposal facilities for over 87 percent of the population of Orange County. Figure 4 shows the service area and sphere of influence for OCSD. The Commission first established the District's sphere of influence on May 2, 1984, and last updated the District's sphere on September 11, 1985. Staff recommends that the



Commission re-affirm the current Orange County Sanitation District sphere of influence.



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 (MSRs) are not subject to the California Environmental Quality Act (CEQA). The MSR proposal is considered Categorical 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 have no impacts on environmental resources.

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 Sanitation Districts 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 OCSD's existing sphere of influence is warranted.



AGENCY OVERVIEW

History of Orange County Sanitation District

The first Sanitation Districts were formed in Orange County in 1947 under the County Sanitation District Act adopted by the legislature in 1923. The new districts replaced an existing joint powers organization that owned an outfall sewer. Each individual Sanitation District provided regional wastewater collection and treatment to serve the rapidly expanding sewerage systems developing within central and northwest Orange County. By 1954, all of the Districts except District 14 were operated by a single administrative agency known as the County Sanitation Districts of Orange County, even though each district had its own Board of Directors and separate user fees. In 1998, the nine existing sanitation districts, other than District 14¹, combined into a single district – OCSD with a uniform regional service fee.

OCSD was formed to address the need for regional wastewater collection, treatment and disposal facilities that would be suitable for the expanding municipal areas in Orange County. Formation also facilitated public financing for sewer systems in Orange County, which the previous organization was unable to accomplish. A bond election in 1949 allowed OCSD to buy treatment and disposal facilities serving the cities of Anaheim, Santa Ana, Fullerton, and Orange and the sanitary districts in Placentia, Buena Park, La Habra and Garden Grove. The bond election also financed the beginning of a network of trunk sewer systems throughout northern and central Orange County.

OCSD now provides sewer service for 21 cities, three special districts (containing 2 cities) and several unincorporated areas of the county, and includes 12 major trunk sewer systems, two treatment plants, two discharge outfalls and two emergency weir outlets. Approximately 580 miles of trunk and local sewers are currently operated and maintained by OCSD. The District is the third largest wastewater discharger in the western United States.

OCSD has adopted the following vision and mission statements to clearly state their guiding principles and purpose.

¹ District 14 included the area served by the Irvine Ranch Water District (IRWD), sewers, pump stations, and treatment facilities within District 14 are owned and managed by IRWD. Effluent that is not reused by IRWD is discharged into the OCSD system. IRWD has an ownership interest in OCSD facilities and pays for operations and capital facilities proportionally to the ratio of its wastewater flow to the total OCSD flow.



OCSD Vision Statement

"To maintain world-class leadership in wastewater and water resource management."

OCSD Mission Statement

We, the employees and the board of directors of the Orange County Sanitation District, are committed to protect public health and the environment by developing, integrating, and implementing fiscally responsible solutions to wastewater, water reclamation, and watershed protection issues. We are a value-based organization dedicated to upholding and consistently demonstrating the attributes affirmed in our Guiding Principles.

The administrative office is located at 10844 Ellis Avenue, Fountain Valley, CA 92708-7018. The District phone number is (714) 962-2411.

Planning Activities

OCSD manages its facilities through the preparation and implementation of wastewater master plans. These plans outline improvements to the collection, treatment and disposal facilities. In October 1999, OCSD adopted a new Strategic Plan in an effort to define its goals, responsibilities, and requirements over the next twenty years, including projections through the assumed "build-out" in 2050 of the District's service area.

This effort to update the 1989 30-year "2020 Vision" Master Plan was necessary because many of the assumptions used previously had changed. Critical factors such as population growth, new construction, the volume of wastewater delivered to the plants and viable water conservation and reclamation programs had to be reevaluated.

In June 2002 the District completed an Interim Strategic Plan Update, which further updated these critical factors and developed revised cost estimates and user fee projections for upgrading the District's level of treatment to secondary standards. On July 17, 2002, after reviewing the Interim Strategic Plan, treatment alternatives, ocean monitoring data, public input, regulatory issues, and financial considerations, the OCSD Board of Directors made the decision to upgrade its facilities to meet secondary treatment standards. The proposed capital improvement program (CIP) for this effort totals \$649 million and implementation of full secondary treatment standards is scheduled to be completed by December 31, 2012. This schedule was reviewed and determined to be reasonable and achievable by an independent Peer Review Team.

The goals of the Strategic Plan Update, including upgrades for secondary treatment, are incorporated in the Asset Management Mission Statement. OCSD is currently drafting a 2010 Capital Facilities Master Plan to supersede the current planning documents.



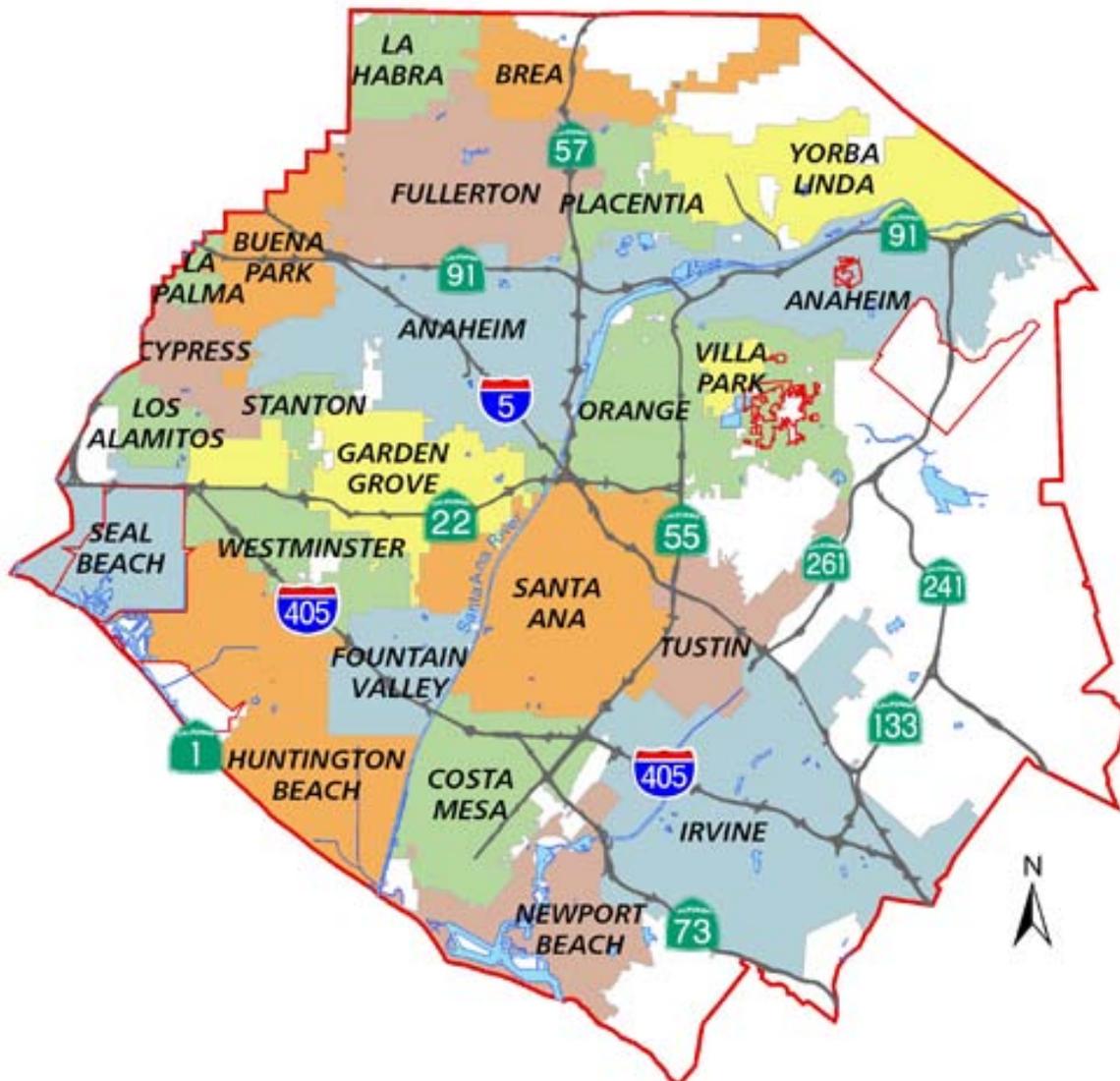
Asset Management Mission Statement

“To plan, create, acquire, maintain, operate, rehabilitate, replace and dispose of assets in the most cost-effective manner at the required level of service for present and future generations.”

Facilities

Figure 1 shows the OCSD service area. OCSD serves more than 87% of the population of Orange County or more than 2.5 million people. OCSD projects that it will serve a population of over 2.8 million people in 2020.

Figure 1 – OCSD Service Area





The OCSD sewer system collects wastewater through an extensive system of sewers, pump stations and force mains, with diversions installed between trunk sewer systems. Wastewater is treated at two treatment facilities, and an outfall system is available for ocean disposal of treated wastewater. The treatment plants currently operate under a permit from the U.S. Environmental Protection Agency and Regional Water Quality Control Board as established in National Pollutant Discharge Elimination Systems (NPDES) Permit No. CA0110604 that permits the discharge of treated wastewater through an ocean outfall system to the Pacific Ocean. In July 2002, the OCSD Board of Directors voted to relinquish the existing EPA issued Clean Water Act §301(h) waiver that allowed OCSD to discharge a blend of primary and secondary treated effluent. The OCSD Board action committed OCSD to build future facilities, to be in place by 2012, that would treat all effluent to secondary treatment standards.

OCSD, like all other wastewater management agencies, is being impacted by the continual tightening of regulations to protect the environment. Some of the changes are the result of improvements in analytical technology that permits the identification of constituents in wastewater at extremely low concentrations – so low the potential health or environmental significance of the concentrations found is not well understood. Recent concern over the occurrence of spills from sewers has also resulted in statewide requirements for more frequent cleaning and more inspection and monitoring of sewers and adequate sewer fees. Although all of these restrictions may be justified, they lead to the need for more new construction and maintenance and increase the costs of operation. Furthermore, the anti-backsliding rule generally results in limits, once established, never being lowered even when new information shows they are too restrictive.

Collection System

OCSD's service area includes twelve trunk sewer systems that are located throughout the service area. The regional trunk sewer systems include approximately 405 miles of sewers and force mains, ranging in size from 12 to 120 (interplant) inches in diameter, as well as sixteen off-site pump stations. The trunk sewer system also includes nine interconnections (to convey flow between main trunk systems) and 87 diversion structures (to convey flow between sewer pipes within a main trunk system). The trunk sewer systems are currently conveying approximately 235 million gallons per day (mgd) with a flow split of approximately 150 mgd to Plant No. 1 and approximately 90 mgd to Plant No. 2. This split includes 60 mgd of the raw wastewater tributary to Plant No. 1 in the





Santa Ana River Interceptor that is diverted to Plant No. 2 via a 120-inch interplant pipeline.

In addition to serving the trunk sewer, wastewater treatment and disposal needs of 2.5 million residents of its service area, OCSD also has been given the responsibility to own and manage several small local sewer systems that were formerly County Sewer Maintenance Districts. Currently, OCSD provides maintenance service by contracting some tasks with private companies. In the rest of the service area, local sewers are provided and maintained by cities or special districts and the costs of local sewers are borne by the residents being served. If OCSD continues to manage local sewers under its present rules, the District has indicated that increased local sewer fees are needed. The charges per EDU are based on the cost of providing trunk sewers, treatment facilities and outfalls or reuse systems. A separate financing system would have to be established for the construction and operation of local sewers owned and managed by OCSD wherein the residents connecting to local OCSD sewers would pay the cost of the local sewers in addition to the common costs for regional OCSD service. OCSD would then hire staff and purchase equipment as required to manage the local sewers with all costs thereof translated into charges to the local sewer users.

The situation has been made critical by the SWRCB's adoption of Order 2006-003-SGWDR on May 2, 2006, which establishes stricter requirements for sewer design, operation, repair, monitoring and reporting. These requirements are part of a state and national effort to improve physical asset performance and to reduce wastewater spills from sewers; achieving compliance demands additional staffing and costs. Furthermore, small diameter local sewers require more maintenance, inspection and repair than larger diameter regional sewers because they are more easily blocked by debris or roots. They also require more frequent cleaning than the regional sewers. Local sewers comprise 30% of the total sewer mileage operated by OCSD but are responsible for over 95% of the historical sewer spills.

Currently, OCSD operates and maintains about 405 miles of regional sewers and about 175 miles of local sewers in the northeast portion of the City of Tustin and unincorporated areas north of Tustin. The cost of maintaining the local sewers was approximately \$1,200,000 in 2005-06. The District has stated that the ad valorem apportionment, which is allocated from a share of the basic levy and is based upon pre-proposition 13 considerations, is inadequate to cover the cost of maintaining the local sewers. The net revenue from the ad valorem apportionment was estimated at \$246,000. This means that over \$1 million of the costs of just maintaining the local sewers was subsidized by the remainder of the 2.5 million residents of OCSD from its regional fee revenue stream.



Treatment Plant System

OCSO has two wastewater treatment plants. Plant No. 1 is located in the City of Fountain Valley, approximately four miles inland of the Pacific Ocean and adjacent to the Santa Ana River. Influent wastewater entering Plant No. 1 passes through the metering structure, mechanical bar screens, grit chambers and the primary clarifiers, before going secondary treatment via activated sludge or trickling filters. Secondary effluent can be diverted to the Orange County Water District for advanced treatment and reuse.



The remainder of the activated sludge effluent flows through the interplant interceptor for use as plant water at Plant No.2 or through the effluent lines to the outfall booster pump and the ocean outfall for final disposal. Plant No. 2 is located in the City of Huntington Beach, adjacent to the Santa Ana River and east of the Pacific Coast Highway. Untreated wastewater flow entering Plant No. 2 passes through flow meters, mechanical bar screens and grit removal

chambers. Flow then passes through the primary clarifiers before being split between the oxygen activated sludge secondary treatment plant.

After disinfection, the primary and remaining secondary effluents from each plant are combined for discharge to the ocean outfall system.

Other interconnections exist between Plant Nos. 1 and 2 include a digester gas pipeline (currently out-of-service), fiber-optic communications cables, Plant No. 1 effluent lines to the Ocean Outfall Booster Station and a raw wastewater interplant bypass pipeline. Solids treatment at both Plant No. 1 and 2 includes dissolved air floatation thickening of secondary treatment sludges, anaerobic sludge digestion and belt press dewatering. Both plants also have facilities for odor control, chemical addition and digester gas utilization for electrical generation to avoid importing electricity.

OCSO also treats the sludge streams and bypassed wastewater from the IRWD service area through diversion of their Michelson Water Reclamation Plant.

Outfall System

The ocean outfall system includes three discharge structures. The primary ocean outfall (Outfall No. 2) was put in service in 1971 and is approximately 27,400 feet long including a 6,000-foot diffuser section. The primary outfall is 120 inches in diameter and discharges treated wastewater at a depth of approximately 200 feet some four miles



offshore. The primary outfall has a capacity of approximately 480 mgd, but has recorded a peak hour flow rate of 550 mgd during a wet weather event.



The emergency outfall (Outfall No.1), originally constructed in 1954 and modified in 1965, is approximately 8,000 feet long, including a 1,000-foot diffuser section. The emergency outfall is 78 inches in diameter and is located at a depth of approximately 65 feet, a mile and a half offshore. The emergency outfall has a capacity of approximately 245 mgd. OCSD's NPDES permit specifies that this outfall can be used for

emergencies only. The disposal alternatives also include the Santa Ana River emergency overflow weirs that discharge directly to the Santa Ana River, and are also limited to emergency use only. Ocean monitoring is accomplished with the District's ocean monitoring and research vessel, Nerissa and shoreline monitoring five days per week.

Biosolids Program

Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farm land or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth. The District produces approximately 650 tons per day or 237,250 tons per year.

OCSD's current biosolids policy is to strive to recycle its biosolids using sustainable options while protecting public health and the environment. Creating a sustainable, cost-effective, and environmentally-sensitive biosolids program is OCSD's staff goal. This approach is intended to help keep OCSD residents' sewer rates low, while minimizing impacts on facility neighbors and commuters and maximizing the usefulness of its resource, recycled solids. OCSD contracts for the application of biosolids to land directly or after conversion to compost at a number of sites within and outside Orange County. Ensuring continued diversity in contractors, products, management technologies, and locations creates stability and sustainability in the District's biosolids program.

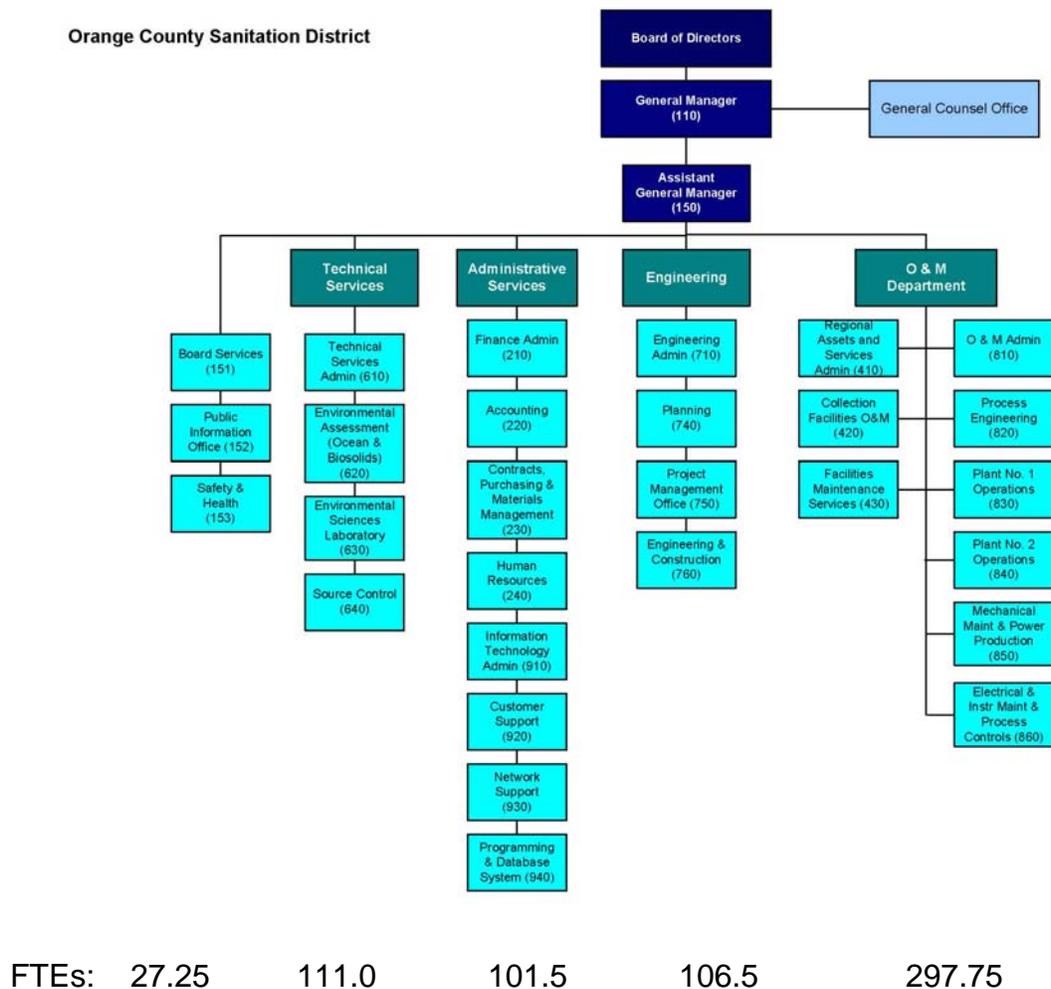




OCSD Organization and Staff

In 2006, OCSD had a total authorized staff of 644 employees measured as full time equivalents (FTEs). As shown in Figure 2, activities of the District are divided among 4 departments all under the direction of the General Manager, who is appointed by and reports to the Board of Directors.

Figure 2 – OCSD Table of Organization



(Note: FTEs are numbers of full time employees per department)



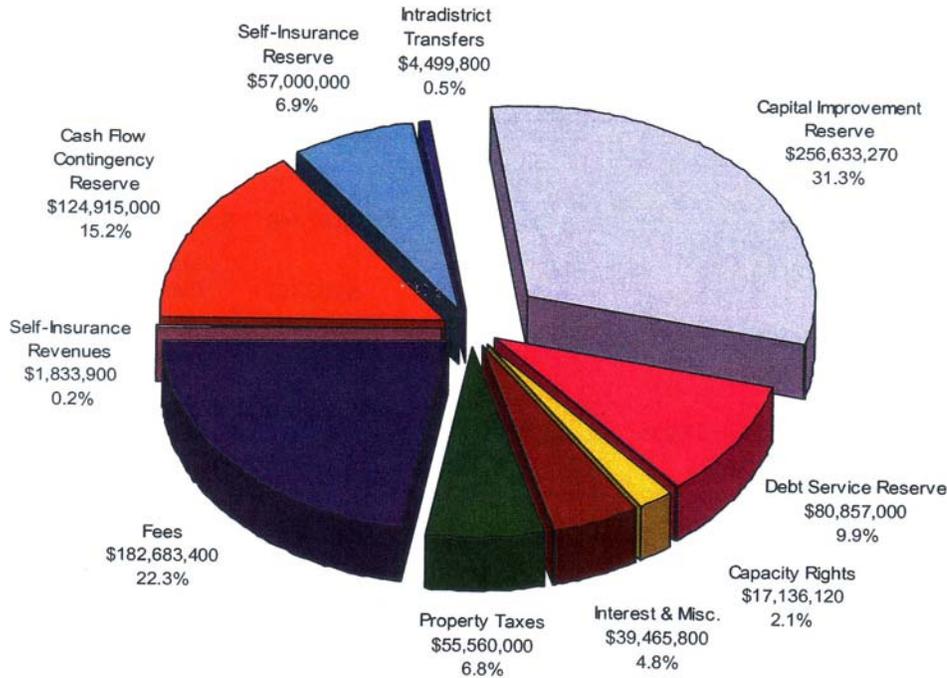
Finances

Budget

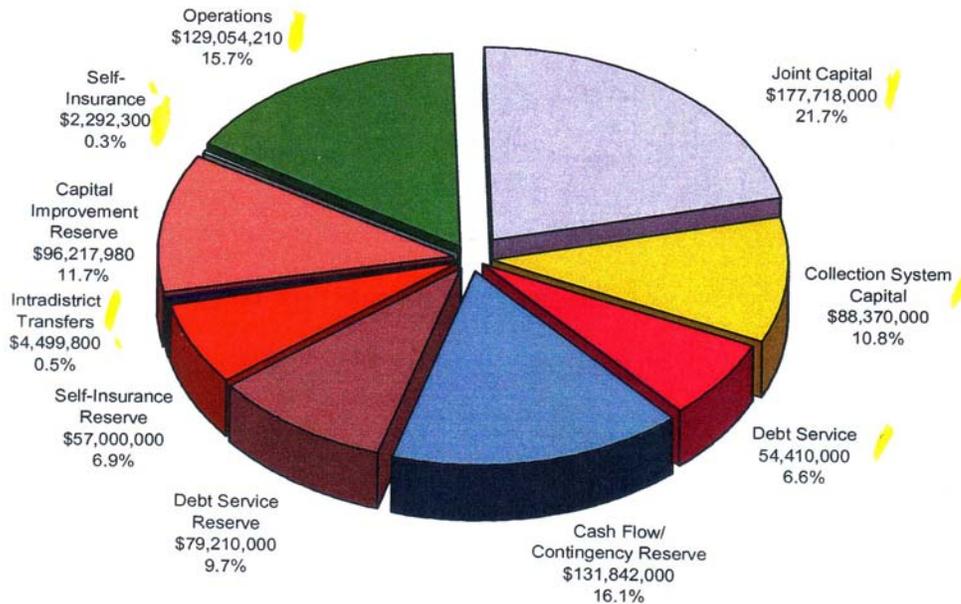
OCSD's sources and uses of funds projected for 2006-07 are presented in Figure 3 and total \$820.6 million. This figure includes both cash flows and changes in reserves. The cash flow uses for 2006-07 are represented by the 6 items that are not reserves and total \$456.3 million. The difference between the sum of non-reserve funding sources and uses is accounted for by the changes in reserve categories.



Figure 3— Sources and Uses of Funds, 2006-07



FY 2006-07 Total Funding Sources - \$820,614,290



FY 2006-07 Total Funding Uses - \$820,614,290



OCSD's Capital Improvement Program (CIP) portion of the budget for fiscal years 2006-07 and 2007-08 is \$266 million and \$338 million respectively. This CIP budget finances collection system, joint works treatment and disposal system improvement projects. The increase between 2006-07 and 2007-08 is attributable to the capital improvements required to provide full secondary treatment, repair of trunk sewers and the Groundwater Replenishment program.

The portion of the budget for operation, maintenance and management of the sewage collection, treatment and disposal system is \$129.1 million in 2006-07 and 135.6 million in fiscal year 2007-08.

Revenue

The District has a variety of revenue sources available for operating and capital expenses. The major revenue sources and amounts projected for 2006-07 are as follows:

Sources of Funds	2006-07 Revenue
• Beginning Reserves	\$521.2 M
• Fees	
○ Service Fees	154.5
○ Industrial Waste Permit User Fees	17.1
○ Capital Facilities Capacity Charges	11.1
• Ad Valorem Apportionments (Property Taxes)	55.6
• Interest Earnings	17.3
• Miscellaneous	
○ One time capacity sale	17.3
○ IRWD capacity and equity charges	19.6
○ Intradistrict transfers	4.5
○ Reimbursement from other agencies	2.4
• Debt Proceeds	0.0
Total Revenue	\$820.6 M

The most important revenue source is the service fee charged to all users. The proposed 2006-07 and 2007-08 user fee rates are \$165.80 and \$182, respectively, per single family equivalent dwelling unit (EDU). These new rates by the District are still well below the average annual sewer rate of \$370 per EDU currently being charged throughout the state according to a 2007 survey of 916 agencies encompassing all counties within California.



Governance

The Orange County Sanitation District (OCSD) is a special district established by the California Legislature and governed by a 25-member board of directors. The directors are comprised of elected representatives for each of the sewer agencies or cities within OCSD's 471 square mile service area. Those cities or agencies are:

Anaheim	Brea	Buena Park	Cypress	Fountain Valley
Fullerton	Garden Grove	Huntington Beach	Irvine	La Habra
La Palma	Los Alamitos	Newport Beach	Orange	Placentia
Santa Ana	Seal Beach	Stanton	Tustin	Villa Park
Yorba Linda	Costa Mesa Sanitary District	Midway City Sanitary District	Irvine Ranch Water District	Orange County

The Board meets once per month on the 4th Wednesday of the month at OCSD headquarters. In between meetings, the work of the Board is carried out by three committees: the Steering Committee, the Administration Committee, and the Operations Committee.

The Steering Committee focuses decision making on district-wide policy matters. This allows for a direct line of communication between the general manager and board leadership on important policy matters facing the District. The committee includes seven board members including the Board Chair, Vice Chair, Administration Chair, Operations Chair and three at-large members selected by the board chair.

The Operations Committee (Engineering, Operations & Maintenance and Technical Services) makes business decisions and provides oversight on engineering, construction, operational and technical issues. This committee also addresses Cooperative Projects, the Capital Improvement Program, and Urban Runoff issues. It meets every month and is comprised of 14 members including, the Board Chair, Vice Chair, committee Chair, committee Vice Chair, and 10 at-large members.

The Administration Committee (Finance, Human Resources and Information Technology) focuses on business matters pertaining to budget, finance, administration, and human resources. This committee consists of the Board Chair, Vice Chair, committee Chair, committee Vice Chair, and nine at-large members. The committee meets every month.

A condensed calendar with the dates of all upcoming board and committee meetings is available on the OCSD website (www.ocsd.com).



Public Outreach

OCSD maintains several educational programs. A series of educational segments are available on the OCSD website. A virtual tour of a treatment plant provides a brief basic description of the treatment processes used at OCSD. There are also informational items available on the site on how users should handle fats, oils and grease and pharmaceuticals.

In addition, OCSD provides tours of their facility. To encourage learning, the District offers a one and a half hour tour that includes a video overview, discussion of the wastewater treatment process, and a bus tour of their facility. They welcome both children (10 or older) and adults on their tours.

Tours are free to schools, clubs, organizations, and other groups. There must be a minimum of 5 and a maximum of 25 visitors per tour. Tours are scheduled Monday through Friday, between 9:00 a.m. and 3:00 p.m. Weekend tours are not available. Reservations must be made at least two weeks in advance.



OCSD is also preparing an education and information program dealing with the proposed rate increases to help assure public understanding and acceptance of the need for the infrastructure the rate increases will finance. Separate Proposition 218 notifications for rate increases regarding regional and local sewer services will occur in the spring of 2008.



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.

1. 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.

OCS D has a process for evaluating infrastructure needs. In October 1999, the District adopted a new Strategic Plan covering the District's goals, responsibilities, and requirements over the next twenty years with projections through "build-out" in 2050. In June, 2002, the District completed the Interim Strategic Plan Update (ISPU) which further updated critical factors and developed revised cost estimates and user fee projections for upgrading the District's level of treatment to secondary standards. On July 17, 2002, after reviewing: (1) the ISPU treatment alternatives, (2) ocean monitoring data, (3) public input, (4) regulatory issues, and (5) financial considerations, the Board of Directors voted 13 to 12 to upgrade District treatment facilities to meet secondary treatment standards.

In preparation for the 2006-07 Budget process, the District's Board of Directors established a Capital Improvement Program (CIP) Oversight Committee to review the CIP program and the OCS D staff's annual CIP validation effort to ensure that the scope of the projects was appropriate, and to gain an understanding of the impact of implementing the CIP on the current rate structure. The annual validation and prioritization process, now reviewed by the Operations Committee, involves a detailed review of the purpose, scope and cost of each proposed project and the risk exposure if the project were deferred. For example, projects with a higher risk if delayed are given a higher priority. The potential risk is that failure to provide a project in a timely manner



could lead to violations of permit requirements or spills which can result in substantial financial penalties to the District, as well as health risks to the public.

The 2006-07 CIP includes 85 large capital projects and 23 special projects with a 15-year capital expenditure of \$2.4 billion, of which \$600 million has already been expended. This program has been developed to satisfy anticipated regulatory requirements, increased population, additional treatment requirements, conservation, energy, and other resource-savings considerations, odor control improvements, and air quality protection needs. Over the next 15 years, the District's CIP will:

- Accomplish major rehabilitation of the existing headworks, primary treatment, secondary treatment, outfall pumping, and solids handling facilities at both treatment plants.
- Replace and rehabilitate 16 off-site of the District's outlying pumping stations, and 44 trunk sewer improvement projects.
- Fund cooperative projects to help cities upgrade their sewer systems for helping to minimize rain dependant inflow and infiltration (I/I).
- Disinfect the District's ocean discharge to reduce bacterial levels below State bathing standards.
- Reclaim 70 million gallons per day of the District's effluent, or nearly one-third of the total daily flow (Groundwater Replenishment System).
- Achieve full secondary treatment standards by 2012.

Specific project details and estimates are contained in the *Proposed Budget, Fiscal Years 2006-07 and 2007-08* adopted by the OCSD Board of Directors June 28, 2006, and available on the OCSD website,

OCSD also has problems with the County's requirement that it operate and maintain local sewers in unincorporated territory formerly served by county sewer maintenance districts. There are two basic problems: (1) the District is not equipped to maintain small diameter local sewers because their maintenance equipment is designed for cleaning larger diameter trunk and interceptor sewers, and (2) the current ad valorem financing mechanism is not adequate to cover the cost of local sewers. OCSD charges an annual regional sewer user fee based upon a formula developed by use type. That rate covers and is based on the provision of trunk sewers, wastewater treatment plants and disposal facilities. Cities and special districts provide local sewer service and fees for that service are collected by the provider, often as a line item on the water or sewer bill.



Currently, OCSD does not have a fee structure of collection method for the local sewers that were assigned to the District by the County in 1986. Funds from the regional sewer user fee, which are paid by all OCSD ratepayers, are clearly subsidizing the costs to operate and maintain the local sewers owned by OCSD in the unincorporated areas of Orange County and in about half of the City of Tustin.

2. Growth and Population Projections

Flow and Growth Assumptions

According to the Interim Strategic Plan Update (June 2002), the population of the District's service area is projected to grow from 2.5 million to 2.8 million by the year 2020, an increase of 17%. The average flow per house connection is 226 gallons per day. Average flow rates at both treatment plants are projected to increase from 256 million gallons per day (mgd) in 2005 to a total combined flow of 278 mgd by 2020, an increase of only 8.6%. The average yearly influent flow to the District has remained relatively stable for the preceding five years. The wastewater flow for Fiscal Year 2000-01 was 246 mgd (average annual basis) and for Fiscal Year 2004-05 it was 243 mgd (average annual basis). The highest flows of 500 mgd (peak hour wet weather basis) were recorded during El Nino storm periods in December 1997 and February 1998. There were no sewer failures or overflows during these events.

Population Projections

The population projections shown in Table 1 are taken from page 3-17 of the OCSD Interim Strategic Plan Update and derived from population data and forecasts of the Center for Demographic Research conducted in 1995 and 2000. The CDR data for 1995 was used in the OCSD population based flow projections because they were slightly higher than the CDR projections in 2000, and therefore more conservative.

Table 1 – Population Projections for OCSD

Year	1995 Population Projection		2000 Population Projection	
	District without Irvine/Irvine Lake	Total District	District without Irvine/Irvine Lake	Total District
2000	2,116,704	2,449,879	2,166,704	2,379,704
2005	2,263,429	2,595,192	2,220,480	2,456,480
2010	2,333,960	2,696,458	2,282,856	2,541,856
2015	2,377,466	2,768,202	2,321,253	2,603,253
2020	2,421,479	2,859,331	2,354,056	2,659,056



Note: Populations for interim years are estimated using linear interpolation.
 Data from Center for Demographic Research (CDR)

Flow Projections

Population based flow projections to OCSD treatment facilities are presented in Table 2.

Table 2 – Summary of Total Projected Treatment Plant Flows, Orange County Sanitation District

Flow Source	Flow (mgd)			
	2005	2010	2015	2020
OCSD Service Area Flows	233	238	242	246
Irvine Ranch Water District (IRWD)	13.5	14.0	15.0	15.0
Santa Ana Watershed Protection Agency (SAWPA)	9.50	12.0	15.0	17.0
Total District Flows	256	264	272	278
Source: Orange County Sanitation District, Nov 2004 Board Agenda Report				

3. Financing Constraints & Opportunities

OCSD is required by Federal Law 92-500 (the Clean Water Act) to collect its revenue from the users of the system in proportion to their use as indicated by each user's loadings measured as flow, organic oxygen demand and suspended solids. The District has developed a system for identifying classes of users and apportioning the costs for its services into the three loading categories and applying them to each user for collection with the annual property tax bills. The revenue analysis determines the amount of revenue needed in a given year to meet its expected financial obligations. At least two separate tests must be met in order for rates to be sufficient:

1. **Cash Flow Test** – A utility must generate annual utility revenues adequate to meet general cash needs.
2. **Bond Coverage Test** – Annual rate revenues must satisfy debt coverage obligations on Certificates of Participation (COP).

The cash flow test identifies projected cash requirements in each given year which include operations and maintenance expenses, debt service payments, policy-driven



additions to working capital, miscellaneous capital outlays, replacement funding, and rate funded capital expenditures. These expenses are compared to total annual projected revenues. Shortfalls are then used to estimate needed rate increases.

The bond coverage test measures the ability of a utility to meet both legal and policy-driven revenue obligations. Because the District has variable rate COPs, it is required to collect sufficient funds through rates to meet all ongoing operational and maintenance expenses, as well as at least 1.5 times the total debt service requirements due in a year. A certificate of participation is a debt instrument where the purchaser receives a share in an installment sale arrangement with the District.

Revenues must be sufficient to satisfy both tests. If revenues are found to be deficient through one or both of the tests, then the greater deficiency (shortfall) drives the rate increase.

The most recent *Revenue Program and Rate Update*, dated April 2006, recommended that the District increase the annual sewer service charge from \$151 to \$172.50 per equivalent dwelling unit (EDU) in FY 2006/07. It also recommended that the District implement annual increases of between 11.75% and 14.25% in subsequent years. This projection will be revisited on a periodic basis, as the District updates its operational and capital projections.

The report further recommended that the District increase the Residential Capital Facilities Capacity Charge (RCFCC) from \$2,890 to \$4,363 per EDU and Commercial-Industrial Capital Facilities Capacity Charge (CICFCC) from \$1,050 to \$1,307 per 1,000 square feet in FY 2006/07. These fee increases were approved by the OCSD Board of Directors in June 2006. The RCFCC and CICFCC represent the cost of all historic OCSD capital facilities apportioned among each residential EDU and commercial-industrial user and is the price new users pay to join the system on an equal basis with existing users. In subsequent years, it is recommended that the CFCCs be increased with inflation.

Finally, it was recommended that the District increase the Supplemental Capital Facilities Capacity Charge to \$0.001344 per gallon, \$0.754730 per pound of biological oxygen demand (BOD), and \$0.091720 per pound of total suspended solids (TSS). These are the unit rates that industries pay when the discharge quantities of flow, BOD or TSS are substantially larger than that covered by their user category's EDU charge. The basis for these recommendations is presented within the *Revenue Program and Rate Update* report. After reviewing the recommendations in the report, the OCSD Board of Directors on June 28, 2006, decided to defer some recommended projects and reduce the COP coverage ratio from 2.0 to 1.8 and then adopted a rate of \$165.80 per EDU for 2006-



07 (a 9.8% increase) and a CFCC of \$4360 for a 3 bedroom single family residence. The adopted rates are therefore slightly lower than the recommended rates but within acceptable financial parameters.

Budget Comparisons

In Table 3, cash flows by major activity are compared for the proposed budgets for fiscal years 2006-07 and 2007-08 with the actual cash flow expenditures for 2005-06.

Table 3— Cash Flow Budget Comparison, Orange County Sanitation District

	Fiscal Year		
	2005-06	2006-07*	2007-08*
Operations	117.8	129.1	135.6
Capital Improvements	277.1	266.1	388.8
Debt Service	48.6	54.4	65.5
Total Cash Flow	443.5	449.6	589.9
* Proposed			
Source: Proposed Budget, Fiscal Years 2006-07 and 2007-08; adopted June 28, 2006.			

Proposition 218 Impacts

OCSD recognizes that the planned increase in user fees, anticipated to be in the double digit percentages over the next five to 7 years requires an effective education and outreach program to explain the health and public safety needs for the rate increases, which OCSD has developed.

However, nearly two decades ago, Proposition 13 reduced local governments' ability to raise property taxes and also specified that any local tax, or user fee, imposed to pay for specific governmental programs--a "special tax"--must be approved by two-thirds of the voters. The intent of Proposition 218 was to ensure that all taxes and most charges on property owners are subject to voter approval. In addition, Proposition 218 sought to curb some perceived abuses in the use of assessments and property-related fees, specifically the use of these revenue-raising tools to pay for general governmental services rather than property-related services.

Recently the California Supreme Court in the *Bighorn-Desert View Water Agency V. Virjil (Kelley)* case issued a decision of critical importance to public entities related to the application of the provisions of Proposition 218. The Supreme Court determined that the California Constitution, Article XIII C, section 3, provides voters the right to use the initiative process to reduce the rate that a public water district charges for ongoing



water delivery. The Supreme Court's decision in the Bighorn case definitively rejects the argument that "property-related-fees" do not include fees based on measured consumption of a utility service even though the use of a service like water service is voluntary and not an aspect of property ownership. This decision, by implication, also applies to sewer and refuse collection service fees and charges.

Furthermore, OCSD must be able to establish that proposed rates and charges do not exceed the cost of providing service. The Court noted that, in the event that voters elect to reduce rates and charges, there is nothing to prevent water districts from raising or imposing other fees and charges to allow them to comply with state laws requiring them to properly fund needed facilities and operations. However, such maneuvers would be costly and time consuming and may impair the ability of a water district to provide its facilities and services in a timely manner.

The Court has not yet ruled on whether the electorate's initiative power is limited by the statutory provision requiring that [a public utility] set service charges at a level that "will pay the operating expenses of the agency,...provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking fund for the payment of the principal of such debt as it may become due." It would appear that the benefits of a well run educational effort would be more than justified by the present risks.

The District is obligated under Article XIII D, section 6(a) to give notice of the impending increase in rates and charges. In acknowledging this requirement, OCSD has indicated that notification of the potential increases for 2007-08 and the subsequent four years along with relevant information will be sent to all customers in spring 2008. Should increases be implemented, they would take effect in the 2008 tax year. Rates for 2006-07 were previously noticed in 2002.

4. Cost Avoidance Opportunities

The operations of the District are regulated by Federal and State law and implemented through permits and monitoring programs adopted by the Regional Water Quality Control Board, Santa Ana Region (RWQCB). These permits not only prescribe the wastewater quality requirements to be met by the District, but include provision for fines and penalties if the District fails to meet the requirements in a timely manner. The District Capital Improvement Program (CIP) has been developed in order to assure that the District does not violate permit requirements and therefore can avoid the penalty costs associated with failure to comply. Since 2000, OCSD has paid fines totaling about \$225,000 related to two sewage spills (in Garden Grove and La Habra) and an



unauthorized discharge of treated wastewater through the emergency discharge point to the Santa Ana River.

5. Opportunities for Rate Restructuring

Although the District receives some funds from State or Federal grants and loans and can issue bonds when passed by a two-thirds vote, most of the financing of District capital facilities and their operation and maintenance comes from the annual sewer service charge established as \$165.80 per equivalent dwelling unit (EDU) in FY 2006/07. It is anticipated that the user fee may increase at over 10% per year for the next five years in order to pay for needed capital improvements. As new users are added to the District's service area, the facilities required to service the new areas are paid for by a Capital Facilities Capacity Charge. Currently, the Residential Capital Facilities Capacity Charge is \$4,360 per EDU and the Commercial-Industrial Capital Facilities Capacity Charge is \$1,307 per 1,000 square feet in FY 2006/07. These methods of generating the required revenue to meet Districts plans and obligations appear to be a reasonable compromise between fairness and ease of collection. There is no apparent need for restructuring. The methods of revenue collection and the rates will be adjusted annually to meet the District's cash flow requirements. Additional user fee information is available in Ordinance No. OCSD-30B. (Appendix A)

6. Opportunities for Shared Facilities

The District currently is sharing the cost of constructing the Groundwater Replenishment System (GWRS) with the Orange County Water District (OCWD). The project will take 72,000 acre feet per year (AFY) of secondary effluent from OCSD, give it tertiary treatment and deliver it to spreading grounds and recharge wells to recharge groundwater basins underlying Orange County. By participating as an equal partner with OCWD in the GWRS project, the District is able to defer, and possibly eliminate, the need for and cost of constructing a third ocean outfall while conserving water that would otherwise be wasted to the ocean.

Although the District provides major wastewater collection sewers throughout its service area, these sewers receive wastewater flows from the local sewers of the cities within the District's boundaries. There are also reciprocal agreements with the Sanitation Districts of Los Angeles County along the border between the two counties providing that each agency will receive and treat flows from the other county that can most practically be delivered to it by gravity. There is also a potential for OCSD to receive wastewater from the proposed AERA housing development in Los Angeles County just north of Brea in Orange County because it is tributary to the OCSD system by gravity. OCSD has entered into an out of area service agreement with the Roland Heights Water District which intends to provide local sewer service for the area.



Because this is an agreement between two public agencies, it does not require LAFCO approval. However, because the proposed AERA development is currently located in unincorporated Orange and Los Angeles Counties, LAFCOs from each County need to be involved in future discussions regarding service provision to this area.

OCSD also shares its ocean outfall with IRWD, for use whenever the reclaimed water produced by IRWD cannot be fully utilized.

7. Government Structure Options

There are five issues related to providing sewer service within or adjacent to the OCSD Service Area that need to be addressed: (a) the desire of the District to stop providing local sewer service for unincorporated portions of their service area, (b) the need to establish a suitable funding mechanism for local sewers if OCSD will continue to operate them, (c) the annexation of new properties into the District, (d) provision of sewer service for individual properties with no local sewers when on-site systems fail, and (e) whether there would be any advantage to having the South Orange County Wastewater Authority join the District.

(a) Provision of Local Sewer Service for Unincorporated Areas of the County

The County Sanitation District Act (§4700-§4859 of the Health and Safety Code) was based on the concept that Sanitation Districts would provide trunk sewers and sewers that carried flow from more than one agency while local sewers would be provided by cities or by the county through formation of sewer maintenance districts or sanitary districts in unincorporated areas. Although OCSD has the authority to provide any type of sewerage service in its service area so long as any existing city or district overlying that area concurs, local sewers serving 99% of the OCSD population are provided by cities, sanitary districts or water districts that are members of OCSD. Sanitary Districts (formed under the Sanitary District Act of 1923, §6400-§6910 of the Health and Safety Code) also have the power to treat sewage but when they are within a Sanitation District, they normally handle the local sewers and leave the collection and treatment to the Sanitation District. Normally, when areas without sewers within the county need sewers, they either annex to a city or an existing sanitary or water district, or form a new special district that can provide local sewers. In the past, several sewer maintenance districts were formed in unincorporated areas and managed by the County of Orange. However, in 1986 the Board of Supervisors decided to stop managing sewer maintenance districts and their local sewers and sponsored a revision to the California Streets and Highways Code (§ 5847.5) which allows a county to transfer management and operation of sewer maintenance districts to an existing Sanitation District within their county so long as the governing body of the



maintenance district concurs in the transfer. Although OCSD objected to taking over management of local sewers, on June 3, 1986, the County Board of Supervisors adopted resolution 86-737 which dissolved the two existing sewer maintenance districts and transferred the responsibility for the local sewers formerly served by them to OCSD. Since that time Orange County has not owned, operated and/or assumed any responsibility for local sewer service.

OCSD has stated it does not want to continue to own, maintain and operate local sewers. At this time, OCSD is contracting with private companies to clean and maintain the local sewers that have been transferred to them. Their current funding mechanisms do not provide for the collection of user fees for the maintenance of local sewers (estimated to be about \$15 per month for each EDU) although the District does receive an ad valorem apportionment of about 0.5% of property tax bills for the areas formerly served by sewer maintenance districts. In 2005-06, OCSD spent \$1,215,707 in contractual expenses, salaries and overhead to operate and maintain the local sewers in the northern portion of Tustin and the adjacent unincorporated areas for which it provides local sewer service. It received net revenue from an ad valorem apportionment in those areas of \$246,000. This means the remainder of the OCSD ratepayers subsidized the local sewer operation in the amount of nearly \$1,000,000 in that year.

OCSD would like to have the responsibility for local sewer maintenance in the two former sewer maintenance districts become the responsibility of the City of Tustin, the Irvine Ranch Water District, or a new sanitary district formed for that purpose. Having local sewers managed by a local agency provides the additional benefit of allowing home owners who need service to deal with an office within their local area rather than having to travel to Fountain Valley from anywhere in the County to be serviced at the OCSD office. Should sewer service for these areas be transferred to adjacent cities and/or existing or new sanitary district, the generated ad valorem apportionment from the areas should be transferred to the respective entity.

(b) Funding of Local Sewers by OCSD

As discussed in the previous section, the cost of local sewer operation and maintenance is being subsidized by the 97% of the population of the OCSD service area for which OCSD does not provide local sewer service. That is because OCSD does not have an adequate funding mechanism in place to cover local sewer construction, maintenance and repair. The small amount received by OCSD for that purpose from the ad valorem apportionment provides only about 20% of the required costs for maintenance and nothing for reserves to accomplish needed repairs. If it is the decision of the citizens of Orange County that OCSD is to provide local sewer maintenance service henceforth, a local sewer user fee needs to be established to cover the costs. If such a fee is established, it may also make it more feasible for cities or sanitary districts to take over



the local sewer maintenance responsibility because the funding mechanism would already be in place.

(c) Annexations

OCSD proposes to annex unincorporated property in Orange County which is directly adjacent to or surrounded by the current OCSD service area. The District currently proposes to annex approximately 7,816 acres to its service area in six locations as described below. The purpose of the proposed annexations is to reduce the potential for groundwater contamination from failing septic tanks in these six locations. The proposed annexations would provide property owners with the option to abandon septic tanks and would limit new septic tank installations in the future. However, annexation would not entitle these areas to development. In fact, sewer connection and septic tank abandonment are not included in the proposed annexation plan. The District does propose to make improvements to the regional collection system to accommodate existing and planned growth in northern and central Orange County but a local sewer service provider would need to be identified.

Areas proposed for annexation to the Sanitation District must be approved by LAFCO and coordinated with local cities and/or local sewerage agencies before service is initiated. Annexation is initiated by OCSD in accordance with Ordinance No. OCSD-29 and must be approved by LAFCO according to the Cortese-Knox-Hertzberg 2000 Act, the legislation that governs LAFCO.

LAFCO policy requires that for areas where a local sewer agency has not been specifically identified, an out-of area service agreement (which identifies and commits a local sewer service provider), be approved and executed as a condition of annexation to the District and eventual annexation to an adjacent city. Where an adjacent city has a sphere of influence encompassing an unincorporated area, the city's General Plan and CEQA documentation for its General Plan may identify sewerage service facilities or policies for eventual sewer service within the sphere area. However in some areas there is no mention of extending sewer service provision to areas within a sphere in either document.

In the past, there has been confusion regarding the signatories to these out-of-area service agreements and the responsibility of the parties to execute these out-of-area service agreements. These, out-of-area service agreements are only between the property owner and the designated local sewerage agency and must receive final approval from LAFCO prior to the issuance of sewer permits.

For the six proposed annexations, local sewer system planning is currently the responsibility of the County of Orange. (Refer to County of Orange General Plan, Board



of Supervisors Resolution 04-106, April 20, 2004). However without the concurrence of a local sewer service provider, the annexations may not be approved.

The six annexation areas are described below.

1. ***Naval Weapons Station in Seal Beach***—This proposed annexation area is 5,101 acres and is currently used as a federal military facility. The logical or potential local sewer service provider for this area is the City of Seal Beach.
2. ***Bolsa Chica***—This proposed annexation area is 1,680 acres and is currently an open space area. The logical or potential local sewer service provider for this area is the City of Huntington Beach.
3. ***Upper Blind Canyon***—This proposed annexation area is 860 acres and is currently an open space area. The logical or potential local sewer service provider for this area is the City of Orange.
4. ***Yorba Regional Park***—This proposed annexation area is 0.3 acres and is currently occupied by one County of Orange structure. The logical or potential local sewer service provider for this area is the City of Anaheim.
5. ***Crest De Ville Road Area***—This proposed annexation area is 33 acres and is currently occupied by 81 residential lots. The logical or potential local sewer service provider for this area is the City of Orange.
6. ***Anaheim Hills***—This proposed annexation area is 142 acres and is currently occupied by 19 residential lots. The logical or potential local sewer service provider for this area is the City of Orange.

With the exception of the North Tustin area, the following unincorporated areas currently receive local sewer service from adjacent cities or local seweraging agencies, but sewer issues have be raised as follows:

City of Buena Park

This is a small unincorporated area (approximately 39 acres) located in the Northwest portion of the City at Ashgrove Dr and Stanton Ave., west of Coyote Creek. Local sewer service is currently provided by the City of Buena Park; although it is the City's position that residents associate more closely with the City of La Mirada (in LA County) than with Buena Park (Orange County). Although no regional sewer issues for this area have been identified, any future change in a County boundary adjustment between Los Angeles and Orange should involve feedback from the District.



City of Fountain Valley

Two small unincorporated areas (21 acres, 11 acres) are located in the Southeast portion of the City at Edinger and Harbor Blvd. and at Harbor Blvd. along the Santa Ana River. The area located at Edinger and Harbor Blvd. includes a pump station and currently receives local sewer service from Garden Grove Sanitary District. There have been discussions regarding annexation to the City; but sewer issues (age and condition of infrastructure, costs associated with upgrades, replacements, etc.) remain obstacles to annexation. No regional sewer issues have been identified.

City of La Habra

There are seven unincorporated areas (ranging from 2 to 17 acres in size) remaining in the City's sphere of influence. Many residents and businesses in the area are currently on septic systems. In the past, the County has worked with the City regarding conversion of the systems and connecting properties to local sewers. The County provided funding to the City for improvements and upgrades to the sewer infrastructure within these areas; however, currently there is no application on file to move forward with annexation of these areas. No regional sewer issues have been identified; however if annexation of areas is not planned for the immediate future, there is need to discuss the issue of failing septic tank systems and local sewer service provision for the area long-term.

City of Orange

The City contains four large unincorporated areas (ranging from 100 to 400 acres in size). Orange Park Acres (approximately 400 acres) consists of homes built as early as the 1920s. The majority of homes are on septic systems. Upon annexation, local and regional sewer service to the area might be provided by the City of Orange, a special district and OCSD. Individual parcel annexations to OCSD only have occurred over the past 3 years; however, because of historical opposition to annexation to the City, local sewer service has been provided by the City through an out-of-area agreement between the City and property owner and approved by LAFCO.

Recently, the City decided to not enter into any additional out-of-area agreements with Orange Park Acres' residents. The City has raised issues such as the costs associated with providing local sewer service to the area as well as existing infrastructure that does not meet City standards. City and County discussions on this issue are ongoing. Should the entire Orange Park Acres area be annexed to the City or to another district, there should be discussions to include the residents, the County, City of Orange, OCSD, LAFCO and any other affected agencies regarding transitioning those properties currently receiving local sewer service from OCSD and the City.



City of Santa Ana

One small unincorporated area (approximately 25 acres) is located in the northeast portion of the City. Currently, the area includes some septic systems. More recently, the City has entered into an out-of-area agreement to provide sewer service to the area contingent upon eventual annexation of the area to the City. LAFCO continues to work with the City and County on this annexation. No regional sewer issues have been identified.

City of Tustin (County unincorporated area northeast of City of Tustin)

A large unincorporated area (also known as North Tustin, Cowan Heights, and Lemon Heights) of approximately 760 acres lies adjacent to the City of Tustin and currently receives local sewer service from OCSD. Piecemeal annexations to the District have taken place over the last several years. Historically residents have been opposed to annexation into the District or the City. It appears that they only annex to the District if their septic system fails or there are building additions, etc. OCSD does not want to continue to provide local sewer service. An MSR for the City of Tustin is also currently being prepared by LAFCO.

OCSD has begun preparing an application for annexation of the Lemon Heights and Cowan Heights areas. More recently, the District held an outreach meeting to provide residents of Cowan Heights with information on the benefits and costs of annexation. Discussions regarding annexation of these same areas to adjacent cities (Tustin and Orange) have not occurred; however with the issues of local sewer service present, discussions on this issue that include OCSD, the cities and other agencies need to occur.

(d) Areas on Septic Systems

There are properties within unincorporated areas of Orange County that can no longer use on-site (usually septic systems) wastewater treatment. This is primarily because old septic tank and leach field systems eventually cease working effectively as solids accumulate in the pores of the soils through which the effluent percolates. When on-site system failure occurs and the site does not have space for a new system, the County Health Services Department requires that these properties connect to local sewers (if they exist within 200 feet).

However, if the nearest local sewer is owned by or within a city, the city will generally not allow such connection from properties that are not within the city. In most cases, local sewers do not even exist within 200 feet of the properties that may need them. Since other adjacent properties may not have a failing septic system, there is no incentive to form a sewer assessment district and the property owner with a failing septic system is left in an untenable position.



This issue should be addressed by all potentially interested or involved parties including the County, OCSD, cities, special districts, LAFCO and possibly the State legislature.

(e) Consolidation of Service Areas

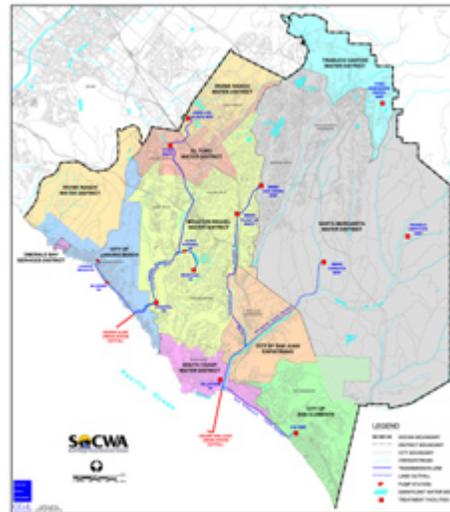
Lying to the southeast of the OCSD service area are a number of special districts and cities that provide wastewater treatment and water recycling or ocean disposal through a joint powers authority, the South Orange County Wastewater Authority (SOCWA), formed July 1, 2001. SOCWA is the legal successor to the Aliso Water Management Agency (AWMA) (1972), South East Regional Reclamation Authority (SERRA) (1970) and South Orange County Reclamation Authority (SOCRA) (1991). SOCWA has broad powers to own and manage facilities for the collection, treatment and disposal of wastewater and the distribution of non-domestic water.

SOCWA includes the following member agencies as shown within the Agency Boundary Map:

- City of Laguna Beach (CLB)
- City of San Clemente (CSC)
- City of San Juan Capistrano (CSJC)
- El Toro Water District (ETWD)
- Emerald Bay Service District (EBSD)
- Irvine Ranch Water District (IRWD)
- Moulton Niguel Water District (MNWD)
- Santa Margarita Water District (SMWD)
- South Coast Water District (SCWD)
- Trabuco Canyon Water District (TCWD)

Service Area

The Aliso Creek, Salt Creek, Laguna Canyon Creek and San Juan Creek Watersheds (approximately 220 sq. mi) Population: (approximately 500,000)



Agency Boundary Map

The agencies that are members of SOCWA are generally located in drainage areas that would not flow by gravity to the existing OCSD system. Most, if not all of them, also provide water service as well as local sewer service. The formation of SOCWA represents a consolidation effort in these communities as a means of reducing overhead,



reducing costs and improving service. It is not apparent whether there would be any advantage to SOCWA or to OCSD if they were to form a Sanitation District and become part of OCSD in order to manage the regional aspects of wastewater treatment and disposal, but the subject could be explored, if it has not been explored already. Sanitation Districts have some powers that are not available to JPAs and there may be a potential to reduce administrative costs further while making a larger staff with more comprehensive skills available to service the treatment plants operated by SOCWA.

8. Evaluation of Management Efficiencies

A review of the District’s management structure, planning processes and funding mechanisms indicates OCSD achieves management efficiencies.

9. Local Accountability and Governance

OCSD serves 21 cities, three special districts (including 2 additional cities) and several unincorporated areas of the county. Every city or agency served by OCSD is represented on its Board of Directors by an elected official of the city or agency. Unincorporated areas are represented by a County Supervisor. The Board meets once per month on the fourth Wednesday of the month at 7:00 PM at the District’s Administrative Office in Fountain Valley. All Board and Committee meetings are open to the public and members of the public can be recognized and speak at meetings. Board members are paid \$170 per meeting attended per month with a maximum of 6 compensated meetings per month. No other benefits are provided by OCSD. The current Board agenda is available on the District’s website: www.ocsd.com.

The current Board of Directors includes the following members:

Table 4, OCCD Board of Trustees

<i>Agency/City</i>	<i>Active Director</i>	<i>Alternative Director</i>
Anaheim	Harry Sidhu	Lucille Kring
Brea	Roy Moore	Ron Garcia
Buena Park	Patsy Marshall	Jim Dow
Cypress	Phil Luebben	Prakash Narain
Fountain Valley	Larry Crandall	Gus Ayer
Fullerton	Don Bankhead	Sharon Quirk
Garden Grove	Bill Dalton	Mark Rosen
Huntington Beach	Cathy Green	Don Hansen
Irvine	Steve Choi	Sukhee Kang
La Habra	Steve Anderson	Tom Beamish



<i>Agency/City</i>	<i>Active Director</i>	<i>Alternative Director</i>
La Palma	Mark Waldman	Ralph Rodriguez
Los Alamitos	Ken Parker	Catherine Driscoll
Newport Beach	Don Webb	Leslie Daigle
Orange	Jon Dumitru	Carolyn Cavecche
Placentia	Constance Underhill	Joseph Aguirre
Santa Ana	Sal Tinajero	David Benavidez
Seal Beach	Charles Antos	Gordon Shanks
Stanton	David Shawver	David Cadena
Tustin	Doug Davert (Vice Chair)	Jim Palmer
Villa Park	Rich Freschi	Brad Reese
Yorba Linda	Jim Winder	John Anderson
Costa Mesa Sanitary District	James M. Ferryman (Chair)	Robert Ooten
Midway City Sanitary District	Joy L. Neugebauer	Allan P. Krippner
Irvine Ranch Water District	Darryl Miller	Douglas Reinhart
County Areas (Board of Supervisors)	Chris Norby	VACANT

Public education is an important component of the District's mission and a wide variety of hand-outs and brochures are available. The District runs tours of its facilities for children over 10 and adults and cooperates with school districts to help educate young people about the wastewater system they operate.



THE NINE DETERMINATIONS

1. Infrastructure Needs or Deficiencies

The Orange County Sanitation District has many needs for repair, replacement and new facilities in order to maintain a viable sewerage system and keep up with growth and changing regulatory requirements. Sewers corrode or deteriorate over time and must be lined, repaired or replaced even though they may last 50 to 100 years. Mechanical equipment wears out and must be replaced often within 20 years of being placed in service. There are also changes in technology and regulations that requires replacement of obsolete equipment or installation of new technology to meet current requirements.

The District has done a good job of analyzing its needs and developing a prioritized list of projects designed to bring the system into full compliance with the federal requirements for full secondary treatment for ocean discharges of treated wastewater. The 15-year Capital Improvement Program (CIP) is estimated to cost \$1.87 Billion and the 2006-2007 budget calls for the expenditure of \$456 million for the CIP. The Strategic Plan and other studies and reports document the infrastructure needs that are being addressed in the CIP.

2. Growth and Population Projections

OCSD currently serves over 2.5 million people comprising more than 87% of the population of Orange County. By 2020, the population served by OCSD should be over 2.8 million people. Wastewater flows are projected to increase from 256 mgd in 2005 to 278 mgd by year 2020 an increase of 8.6%. However, the conversion of the main treatment plant to full secondary treatment and participation in the groundwater recharge program with OCWD will result in a substantial increase in infrastructure costs disproportionate to the increase in population. Staff did not identify any issues related to growth and population projections.



3. Financing Constraints & Opportunities

The substantial increase in capital and operating costs associated with going to full secondary treatment will be financed by increases in the annual sewer service charge by close to or more than double digit percentages in each of the next 5 to 7 years. The Residential and Commercial-Industrial Capital Facilities Capacity Charges will also be increased to represent the new unit costs of facilities.

Considering the size of proposed rate increases, the District must do an effective job of explaining the need for the new facilities to the general public. Failure to do so could result in use of the Proposition 218 provision in the state constitution that permits individuals to propose ballot initiatives to roll back fees, thereby compromising the entire program.

4. Cost Avoidance Opportunities

Considering that OCSD wastewater treatment standards and requirements are regulated by the RWQCB in compliance with state and federal law, OCSD is obligated to meet those requirements or face heavy fines. Other than planning carefully to achieve compliance at minimum cost, there is little that can be done to avoid the costs imposed by federal and state regulations.

5. Opportunities for Rate Restructuring

The current rate structure whereby users are charged in proportion to their contribution of flow, BOD and Suspended Solids is mandated by the Clean Water Act and is being implemented efficiently by the District. There is no apparent need for restructuring the methods of revenue collection and the rates will be adjusted annually to meet the District's cash flow requirements, unless the voters were to pass a Proposition 218 fee reversal. In that case new and probably more expensive ways would need to be devised to obtain the revenue required to run the system.

6. Opportunities for Shared Facilities

The Orange County Sanitation District exists to provide trunk sewers and treatment facilities that can be shared by all of the cities and wastewater agencies within its service area. In addition, OCSD is sharing the cost and providing the secondary effluent that will allow the Orange County Water District to recharge over 72,000 AFY of reclaimed



water in the groundwater basins underlying a major part of the county. OCSD also shares use of its ocean outfall with IRWD. No other opportunities for sharing facilities were identified in the study.

7. Government Structure Options

There are five potential governance alternatives that should be explored by OCSD and affected agencies that may improve service, reduce costs or improve efficiency of operations.

(a) Provision of Local Sewer Service for Unincorporated Areas of the County

Currently, OCSD is responsible for managing service areas formerly served by two sewer maintenance districts formed by the county to serve unincorporated communities and then transferred to OCSD for their operation and management. OCSD has the skills and equipment to maintain large trunk sewers and to operate wastewater treatment facilities, but they are not presently equipped or financed to provide or maintain local sewers. In addition to the two former maintenance districts, there are other areas that are currently islands within OCSD's service area that will need local sewers in the future. According to the County General Plan, the County Board of Supervisors is responsible for the planning for local sewers in unincorporated areas. Discussions should ensue regarding local sewer service provision responsibility for the unincorporated areas for which a local provider other than OCSD has not been identified. Discussions should include the County of Orange, OCSD, LAFCO and other affected agencies.

(b) Funding of Local Sewers by OCSD

OCSD operates local sewers for slightly more than 1% of its customers but the ad valorem apportionment it receives to perform this service cover less than 20% of the cost of maintaining those sewers. The remainder of the cost (approximately over \$1.0 million per year) is subsidized by the remaining 97% of the District's customers. Those customers are already paying for local sewer service through their cities or special districts but OCSD's customers using the local sewers managed by OCSD do not pay appropriately for the service. If OCSD is to continue operating local sewers, a suitable fee needs to be established to cover the cost of their operation, maintenance and repair.

(c) Annexations

The Sanitation District is in the process of annexing 7,816 acres divided among six locations in the County. Although these annexations would facilitate abandonment of



existing septic tanks in residential areas and provide an alternative to installation of new septic tanks in vacant areas, the annexation alone will not entitle these areas to development because there is still no mechanism available for providing local sewers.

For the six proposed annexations, local sewer system planning is currently the responsibility of the County of Orange. (Refer to County of Orange General Plan, Board of Supervisors Resolution 04-106, April 20, 2004, page V-49). There also needs to be better coordination between OCSD and LAFCO during the formulation or implementation of annexation plans.

(d) Areas on Septic Systems

There are properties within unincorporated areas of the County that can no longer provide on-site wastewater treatment. The County Health Care Agency is requiring that these properties connect to local sewers, but local sewers frequently do not exist. Nearby cities will not extend local sewers into these areas unless the properties annex to the city. A majority of the properties within these areas may not yet need sewers so there is no incentive to form a sewer assessment or sanitary district. This leaves some property owners in an untenable position in which County government requires that they do something they cannot do and no agency in the County has the responsibility or authority to impose a solution. Furthermore, a recent study of the cost of providing a backbone sewer infrastructure in today's market for several of the areas in question indicate a potential range of \$33,500 to \$58,500 per household. For other areas, connection to a public sewer is considered a practical or economic impossibility. This issue should be addressed by all potentially interested or involved parties, or perhaps a solution needs to be crafted by the State legislature.

(e) Potential Enlargement of the District

It may be worthwhile for OCSD and the South Orange County Wastewater Authority (SOCWA), the agency providing wastewater service to some 220 square miles and over 500,000 people in southern Orange County, to discuss whether there would be advantages to both agencies if SOCWA became a Sanitation District and joined OCSD. Sanitation Districts have the ability to assess user fees; whereas JPAs do not. This may be one of several potential advantages that might be considered. On the other hand, the SOCWA service area is about half the size of OCSD and is probably large enough to function efficiently on its own. Furthermore, most of its member agencies also provide water supplies to their service area whereas OCSD does not.



8. Evaluation of Management Efficiencies

A review of the District's management structure, planning processes and funding mechanisms indicates no apparent area needing attention from the standpoint of management efficiency.

9. Local Accountability and Governance

OCSD serves 21 cities, three special districts (containing 2 cities) and several unincorporated areas of the county. Every city or agency served by OCSD is represented on its Board of Directors by an elected official of the city or agency. Unincorporated areas are represented by a County Supervisor. The Board meets once per month on the fourth Wednesday of the month at 7:00 PM at the District's Administrative Office in Fountain Valley. All Board and Committee meetings are open to the public and held in compliance with the provisions of the Brown Act. Members of the public can be recognized and speak at meetings. Board members are paid \$170 per meeting attended per month with a maximum of 6 meetings for which they can receive payment in any one month. No other benefits are provided by OCSD. The current Board agenda is available on the District's website: www.ocsd.com.

Public education is an important component of the District's mission and a wide variety of hand-outs and brochures are available. The District runs tours of its facilities for children over 10 and adults and cooperates with school districts to help educate young people about the wastewater system they operate.



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 Sanitation District provides a trunk sewer wastewater collection system and wastewater treatment and disposal in compliance with requirements established by the Regional Water Quality Control District, Santa Ana Region. It serves 21 cities, three special districts and unincorporated county areas with a total population of over 2.5 million people.

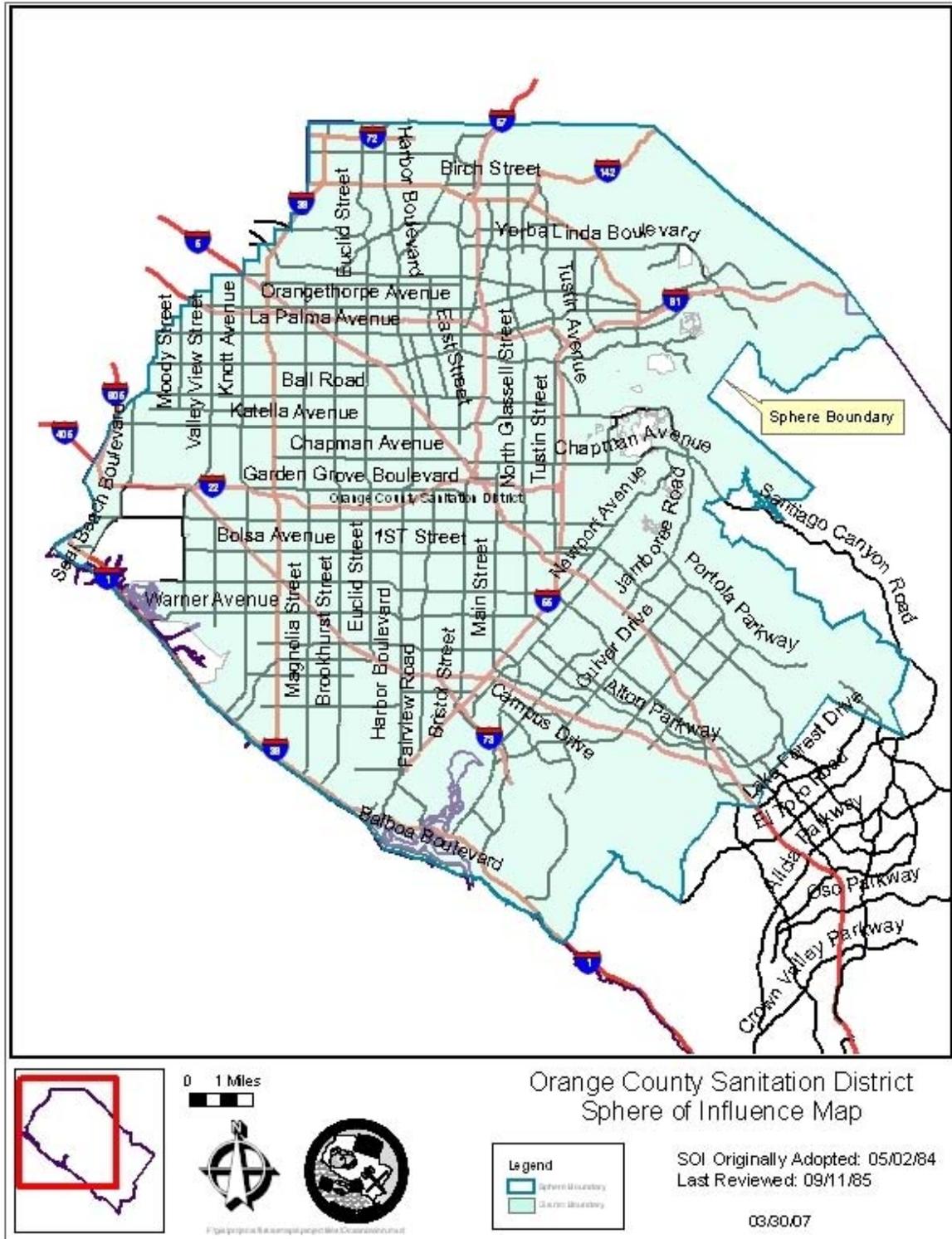
The statement of determinations that follows is based on the analysis of the Orange County Sanitation District's provision of services which precedes this section of the report.

Recommendations

Staff recommends that the Commission re-affirm the Orange County Sanitation District's current sphere of influence, as delineated in Figure 4.



Figure 4— Orange County Sanitation District Service Area and Sphere of Influence





STATEMENT OF DETERMINATIONS – ORANGE COUNTY SANITATION DISTRICT

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

The OCSD service area includes 21 cities, three special districts and unincorporated areas 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. As unincorporated areas develop in future years there will be a continuing need for local sewers and expansion of OCSD's regional collection and treatment system.

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

All metropolitan areas that have relatively dense residential, commercial and industrial development must have wastewater collection and treatment systems that comply with federal and state laws and protect the public health. OCSD is providing these services in its service area and anticipates a slow expansion as the service area approaches build out conditions. Also, it is anticipated that both incorporated and unincorporated areas with septic tanks will be converted to public sewers. These conversions will require new public facilities at a local level, but local sewerage agencies for the unincorporated areas has not identified for most of the areas.



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

The capacity of the OCSD regional wastewater collection, treatment and disposal system is commensurate with the population it currently serves. However, recent decisions by the Board of Directors to upgrade the treatment to full secondary for ocean disposal and for a significant expansion of its water recycling program in conjunction with the Orange County Water District requires a substantial investment in new facilities. In addition, older collection and treatment facilities require renovation or replacement to maintain the performance of the functions for which they were designed. The District has a continuous planning and implementation process to assure that the necessary facilities are in place as required.

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

All of the residences, industries and commercial facilities that are connected to the OCSD sewerage system have both a social and economic interest in their activities. The social interest is that their wastewaters are managed in compliance with existing law and in a manner to protect the public health and the environment. The economic interest is in achieving those goals at the minimum cost commensurate with those responsibilities. OCSD has demonstrated the ability to provide for the cost effective management of the wastewaters generated within its service area in compliance with existing and proposed regulations.

Unincorporated areas of the county within the OCSD sphere of influence that do not yet have local sewers will need to be annexed to OCSD to receive their services. Residents of these areas have both social and economic interests in the outcome of the annexation processes and some may object to being included before their individual needs demand it.