South Orange County Wastewater Authority

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Strategic Plan 2015

December 2008

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Hillary Kelly – Chief Operator

Other

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South Orange County Wastewater Authority
Strategic Plan 2015

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Overview

History

Through a consolidation of its governance structure, the South Orange County Wastewater Authority (SOCWA) was created on July 1, 2001 as a Joint Powers Authority and the legal successor to the Aliso Water Management Organization (March1972), South East Regional Reclamation Authority (March1970) and South Orange County Reclamation Authority (1991). The principal operating revenues of the SOCWA are charges to the member agencies for services.

The mission of the South Orange County Wastewater Authority (hereafter "organization") is to collect, treat, beneficially reuse, and dispose of wastewater in an effective and economical manner that respects the environment, maintains the public's health and meets or exceeds all local, state and federal regulations. Collected wastewater receives full secondary treatment at one of the organization's four wastewater facilities, and the organization also has active water recycling, industrial waste (pretreatment), biosolids management and ocean/shoreline monitoring programs to meet the needs of its members and the requirements of the applicable regulatory permits.

Service Area and Members

The organization's service area encompasses the Aliso Creek, Salt Creek, Laguna Canyon Creek and San Juan Creek Watersheds (approximately 220 sq. mi) and is represented by the following member agencies:

City of Laguna Beach
City of San Clemente
City of San Juan Capistrano
El Toro Water District
Emerald Bay Service District
Irvine Ranch Water District
Moulton Niguel Water District
Santa Margarita Water District
South Coast Water District
Trabuco Canyon Water District

Governance

The organization is a Joint Powers Authority (JPA), governed by a Board of Directors, representing the interests of their own respective agencies, while also serving the interests, mission and programs of SOCWA. The Board has oversight and policy setting responsibilities for the organization and appoints the General Manager to handle day-to-day operations.

The organization's JPA general governance structure is subdivided into *Project Committees*, each formed to construct and/or manage specific facilities or activities. Member agencies, as participants or capacity owners in the Project Committees, contribute their portion of funding revenues necessary for all personnel, acquisitions and services necessary to operate, maintain and administer the stated programs or purpose of each Committee. A complete list of each Project Committee, and their respective purpose, is included in Appendix 1.

The organization has four standing Committees. Appointed members of the Board chair and participate in the matters that come before the Finance and Executive Committees. The Engineering and the Technical Advisory Committees are represented by staff members from each of the respective member agencies.

Management

The organization, under the direction of the General Manager, has a staff of 62.5 full-time employees. The Executive Management Team, which reports directly to the General Manager, is comprised of the Director of Engineering, Director of Finance, the Assistant General Manager/Director of Operations and the Human Resources Manager.

Facilities

The organization currently operates four wastewater treatment facilities, two ocean outfalls and a treated effluent pipeline:

- Jay B. Latham Treatment Plant
- Regional Treatment Plant
- Coastal Treatment Plant
- 3A Plant
- Aliso Creek Ocean Outfall
- San Juan Creek Ocean Outfall
- Effluent Transmission Main

On a contract basis, two member agencies operate SOCWA facilities on behalf of the participating project committee members:

- North Coast Interceptor (contracted to City of Laguna Beach)
- San Clemente Land Outfall (contracted to City of San Clemente)

Services

Under the heading of wastewater management, the organization provides the following services:

Wastewater Management

CORE SERVICES		
Wastewater Treatment **Recycled Water** **Environmental Management**	**Wastewater Treatment** ▪ Facility O & M ▪ Outfall operations ▪ Treatment and disposal ▪ Biosolids production ▪ Security and support	**Recycled Water** ▪ Production **Environmental Management** ▪ NPDES permits ▪ Waste Discharge Permits for recycled water ▪ Shoreline and receiving water monitoring ▪ Pretreatment Program

OTHER	
	Procurement and Contract Administration ▪ Manage regional service agreements in partnership with participating member agencies ▪ Administer FOG service contract with vendor on behalf of participating member agencies **Water Quality Monitoring** ▪ MNWD - potable water system monitoring and reporting ▪ SMWD - weekend process control analysis ▪ Ocean Water Protection Program partnership with County of Orange ▪ Watershed management partnerships ▪ Dry weather diversions program monitoring

Customers

Because of the nature of its structure and mission, the organization does not have the traditional customer base that characterizes water, sanitation or other special districts. The organization's customers are limited to the following:

- The *10 member agencies* - each is distinguished by membership in the respective Project Committees, or by issues and needs for which the organization provides a level of service or assists in providing a resolution

- *Commercial/Industrial or Institutional businesses* – these customers fall under the jurisdiction of the organization's Pretreatment Program and may include auto repair shops, some light industrial, dry cleaning establishments and hospitals which receive inspections, assistance with Best Management Practices and assistance with the permit process

Revenue and Budgets

The principal operating revenues of SOCWA are charges to the member agencies for services.

A draft budget is prepared each spring and presented at a workshop to the member agencies and the Board of Directors. The workshop presentation typically focuses on major issues or conditions that are influencing the proposed budget. In the aftermath of the workshop, staff edits and/or makes agreed upon changes to the draft budget before sending it out again to the member agencies for a final review. The final draft of the budget is presented to the Board of Directors at the June meeting, with the recommendation that the Board adopt the new budget. The Operations and Maintenance budget for FY 2009, established at $18,087,800, was adopted in June 2008.

Strategic Plan 2015

The Board of Directors adopted the Organization Assessment Plan 2006 in October 2006, which provided the Board, its member agencies and the organization's staff with information on organization issues, areas that might benefit from additional resources and areas that provided opportunities for change or improvements. Input was derived from consultation with employees, the organization's senior management staff, a consultant and the Board of Directors' Executive Committee.

Since October 2006, management, staff and the organization's consultant have worked hard to implement the Plan's recommended elements. One key recommendation, *Succession Planning*, necessitated understanding more clearly what issues, challenges and opportunities faced the organization over the next several years. Another recommendation, to further refine and develop *Management and Supervisory Training and Work Skills*, was also dependent on first assessing where the organization and its employees were positioned before developing the appropriate programs.

Acting on the advice of the organization's consultant, Sharon Davidson, and with concurrence of the Board of Directors, it was decided in early 2007 to develop a "Strategic Lite" plan that would gather data and information about issues, challenges and opportunities facing the organization in a manner that was not as protracted as standard strategic planning. Although this approach would be "Lite", it would still provide sufficient

leadership, management and work skill development information in order to ensure a successful outcome to move the organization forward. The year 2015 was selected as a reasonable time horizon for developing, implementing and evaluating the necessary programs to a successful conclusion. An annual Work Plan will act as the implementation tool. A Leadership Development Team (LDT), comprised of senior management, other key staff members and two members from the Board of Directors, was established in early 2007 to collect and prepare information that would then be presented to the entire Board to form the foundation of the organization's Strategic Plan.

Industry Outlook

Reference sources were reviewed and survey information was gathered in order to prepare a summary of the wastewater industry's current and future status and an assessment of issues facing the organization. A list of the references can be found in Appendix 2.

Wastewater Industry Trends

The wastewater industry is presently being shaped by local, regional, national and global issues and trends. These wide ranging economic, regulatory and environmental influences, which will continue in the future, will affect public agencies and their end use customers. Several of these key areas are explained in more detail in the following sections:

1. Cost Pressures

- **Replacing and Repairing Infrastructure** According to the EPA, aging wastewater management systems discharge billions of gallons of untreated sewage into U.S. surface waters each year, and the EPA estimates that the nation must invest $390 billion over the next 20 years to replace existing systems and build new ones to meet increasing demands. Yet in 2005, Congress cut funding for wastewater management for the first time in eight years. In its 2005 Report Card for America's Infrastructure, the American Society of Civil Engineers (ASCE) assessed the condition and capacity of our nation's public works with an overall grade of D. ASCE estimates that $1.6 trillion is needed over a five-year period to bring the nation's infrastructure up to a "good" condition. Each category in the report was evaluated on the basis of condition, performance, capacity versus need, and funding versus need. Wastewater systems received a "D-" nation-wide, although closer to home, Orange County's own systems received a "C+".

- **Energy and Resources** Water and wastewater systems in California spend a combined $500M each year on energy costs and this will continue rising as global demands for energy increase. Global supply and demands conditions have also played havoc with many of the chemical products used in the wastewater treatment process, resulting in annual cost increases that regularly outstrip the rate of inflation.

- **Population Growth and Drought** Continued demand for water, coupled with ongoing drought conditions, will impact overall water management costs, resulting in a more directed focus on overall "water resource" strategies that include

conservation and recycling. This may in turn put additional pressure on wastewater systems.

- **Employee Salaries and Benefits** When it comes to the costs of salaries and benefits for its employees, public agencies must remain competitive when comparing themselves against other public or private providers of wastewater services. Maintaining competitive salaries and benefits to attract and retain a qualified workforce must also be balanced with fair, yet fiscally prudent compensation packages, so as not to overburden the rate payers or compromise the ability to provide the most effective services available.

2. Regulatory and Legislative Mandates

Environmental regulations on air, land and water quality are an ever present part of wastewater management and this will continue into the future, putting additional pressure on agencies to respond with mitigation, changes in operational practices or moving towards new treatment technologies. A few examples where anticipated regulatory or legislative actions will impact wastewater management, include:

- **TMDL** (total maximum daily load) is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. Some TMDL standards for "impaired" waterbodies have already been issued around the country or within the region.

- A constant flow of old and unused **pharmaceuticals**, which can often remain chemically intact after they disappear down drains, may pose an environmental threat once they reach sewage-treatment plants where removal rates can vary from almost zero to 100 percent. The threat can then enter waterways or residual solids and treated water that is beneficially reused. Mandates to treat or eliminate some harmful pharmaceuticals from treated wastewater effluent are expected in the future.

- **Climate change** legislation and regulation is rapidly affecting all facets of society, including wastewater management. California's major initiatives for reducing climate change or greenhouse gas (GHG) emissions are outlined in Assembly Bill 32, signed into law in 2006. AB 32 aims to reduce GHG emissions to 1990 levels by 2020 - a reduction of about 25 percent, and then an 80 percent reduction below 1990 levels by 2050.

- Since 9/11, the U.S. Environmental Protection Organization (EPA) has requiring all drinking water systems serving populations greater than 3,300 to prepare **Vulnerability Assessments**. This requirement by the EPA is in response to the Bioterrorism Act passed by the U.S. Congress in June 2002. In addition, the U.S. Congress is expected to pass similar legislation applicable to wastewater systems.

2. Economics and Demographics

California's population growth continues to factor into the worsening water crisis and the state's ability to meet its fiscal responsibilities. Other factors may also have an impact on the industry, including:

- The **population** in the United States is expected to double from 275 million today to about 571 million by 2100. The US Census Bureau also estimates that California's population will increase from about 35 million in 2005 to about 55 million by 2025. Orange County is expected to double in population during that same time period, increasing from about 3 million to roughly 6 million. This increase may have a significant impact on wastewater system infrastructure and the associated operational costs.

- **State and Federal budget issues** will have an impact on every facet of society. State and federal budget gaps will mean less funding available for programs, additional fees may be levied in order to fund regulatory mandates, and there may be an increased risk that local property taxes may be taken to close the gaps and less funding may go towards clean water infrastructure needs.

3. Workplace Changes

- The demographics of the organization's **workforce** currently indicates an average age of about 48 with a work experience level of nearly 20 years within the industry. While the organization's older workforce, for the most part, was able to purchase their homes within the organization's service area many years ago, the dramatic increase in the median home prices in southern Orange County has forced our younger workforce to purchase their own homes in areas that are much further away. Home purchasing in south Orange County will continue to pose a significant barrier to entry-level or non-management employees that typically represent the backbone of the organization. Finding and retaining workers will be an ever-present challenge and may require more training and/or other resources.

- **Technology** is now firmly embedded within the industry. As a result, agencies within the industry should be able to take advantage of these tools to improve efficiencies, deal with the proliferation of data and improve their communications, thereby saving costs and increasing productivity.

- The water and wastewater industry outsources certain **business functions**. Faced with increased infrastructure replacement, cost pressures, regulatory mandates and other market pressures, the industry may see consolidations, additional outsourcing or even privatization, gain increased traction.

4. Assessment - Strategic Plan Survey

As part of the effort to understand what issues, threats and opportunities face the industry, the Leadership Development Team conducted a survey of regulators and wastewater advocacy groups. The Team also provided its own insight. The results indicated the following:

- Regulatory oversight will continue to expand
- Concerns over the environment, including climate change, sustainability and ecological impacts, will increase
- Changes in the workforce will impact the ability of agencies to hire, train and retain staff
- Fiscal pressures will continue to impact all public agencies attempting to deliver their services in a cost-effective manner
- Aging infrastructure will require substantial capital improvements
- Recycled water, to replenish drinking water aquifers, may become a common response as the water crisis continues
- Improvements in technology will have a beneficial improvement on the industry
- Public interest in the environment will increase and should result in an increase awareness of wastewater treatment's role
- Increased collaboration between agencies should be undertaken to increase efficiencies

Assessment and Strategies

The SOCWA Board of Directors convened a special meeting on June 24, 2008 to discuss and review the organization's strategic direction. In reviewing the information presented by staff about the state of the industry, and the external assessment gathered by the LDT, a few critical factors, expressed by the Board stood out as conditions of continued, long-term success:

- The work of the organization is done quietly, without much fanfare. Although the organization keeps a low profile, its overall performance is very effective.
- It's evident that staff moral and loyalty is good and this plays a very important role in the performance of the organization.
- A concerted effort to collaborate and cooperate with local agencies should remain a priority.
- Efficient operations have been a hallmark of the organization in the past ten years; this approach should be continued.
- Maintain excellent relations with external stakeholders, such as regulatory, local government and community leaders
- Continuously incorporate technology improvements and best management practices into all aspects of the organization's operations

1. Issues, Challenges and Opportunities

The Board of Directors, through discussion and several exercises, focused on a number of external and internal **issues, challenges and opportunities** facing the organization. The LDT added its own and summarized both:

Internal Issue

- The organization is still "siloed" in some areas (operations, administration, engineering, etc.) which challenges the opportunities to build and implement a team approach.
- Work processes are not fully documented yet. This hampers employee training and basic understanding of work practices.
- Communicating the need for the replacement of aging infrastructure with the member agencies needs to remain a priority
- Dry weather diversions and treatment may eventually create a capacity issue.

External Issue

- The organization needs to more clearly define its "power base", or "customers". Is this strictly the member agencies or should it be expanded to include the local community?
- An increased interest in desalination may have a resulting impact on the organization.

Internal Challenge

- Rising employee compensation, including pension benefits, poses a fiscal challenge.
- The security of the facilities must remain a priority and plans for responses to security emergencies should be regularly reviewed and updated.
- Dealing with energy availability and rising costs will impact the organization.
- Responding to unfunded regulatory mandates will exert additional fiscal pressures.
- There are limited organizational performance measures to align employee performance with.
- Improvements in leadership and skill development need to be increased.
- The organization's lean structure poses a potential risk to overall effectiveness, should vacancies occur because of retirements or job opportunities elsewhere.

External Challenge

- The organization must work to influence the behavior of the community as it relates to contaminates and disposal of pharmaceuticals that may be harmful to the wastewater treatment process.

Internal Opportunity

- The organization should continue working with companies that are interested in turning waste products into reusable, marketable products.
- Communicating effectively with regulators and government officials is a priority.
- Potential employees and/or organization leaders should be identified through educational institutions, in-house training and recruitment.
- The organization's lean structure offers employees the opportunity to develop multi-functional tasks.
- Information technology systems have been well developed, providing efficiencies and better communication than in the past.

External Opportunity

- The organization's expertise in wastewater management O&M and regulatory compliance have been recognized locally and nationally.
- The water crisis can be effectively addressed by maximizing recycled water through operational or regulatory efforts
- Engage in regional discussions about desalination, to the extent that it impacts the organization's own facilities.
- Look for opportunities for federal and state funding to address capital infrastructure needs.
- Stay engaged with public outreach efforts to educate about wastewater treatment and the role of the industry within the environmental community.

2. Mission Statement

The Board of Directors, with assistance from its consultant, revisited the fundamental discussion surrounding the organization's customer base. The mission statement for the organization emphasizes the member agencies as the primary base and this was strongly reemphasized in a review and subsequent revision to the Mission Statement:

> "The mission of the South Orange County Wastewater Authority (Authority) is to collect, treat, beneficially reuse, and dispose of wastewater in an effective and fiscally responsible manner that respects the environment, maintains the public's health and meets or exceeds all local, state and federal regulations to the mutual benefit of the Authority's ten member agencies and the general public in South Orange County today and in the future."

The revised Mission Statement was adopted by Resolution 2008-04 on August 7, 2008.

3. Vision Statement

Vision statements define organizations' purpose, in terms that emphasize an organization's own values and guiding beliefs about how things should be done. The vision statement communicates both the purpose and values of the organization and highlights to employees, and its customers, what, where and how the organization will focus on. The organization's first ever Vision Statement was adopted by Resolution 2008-05 on August 7, 2008:

> "The Strategic Vision for the South Orange County Wastewater Authority is to continuously strengthen our reputation within the clean water community by implementing environmentally sustainable and sound organizational solutions to the business of wastewater management and communicate our achievements to our stakeholders."

4. Focus Areas

The critical factors, identified by the Board of Directors through the strategic planning process, combined with the Mission and Vision statements, have been developed into a

series of Focus Areas that will form the organization's strategic direction and action plans. The Focus Areas will help to position the organization for success:

FOCUS AREAS

1. Organizational Value
2. Environmentally Responsive
3. Performance
4. Workforce Success

1. Organizational Value

The organization's core business practice is to be proactive and effective in dealing with the daily, current and future issues facing a wastewater utility. In committing to Organizational Value we pledge to:

- Maintain a positive and constructive culture throughout the organization
- Be actively engaged in the political and regulatory landscape that shapes our industry
- Maintain and establish political and professional relationships with local, state and federal stakeholders
- Operate in a fiscally sound and reasonable manner
- Maintain an effective communication program that informs and educates stakeholders within the community
- Regularly review our organizational, strategic and core business practices for improvements
- Perform more realistic long range forecasting with a goal of 10% accuracy
- Operate the organization and its facilities with future generations in mind.

2. Environmentally Responsive

The organization already has a well established record of excellence with respect to meeting the compulsory environmental compliance requirements of a wastewater utility. The organization will expand upon its record by advancing opportunities for environmental friendly choices:

- Promote and support development of continual improvements to the organization's environmental management programs and processes
- Negotiate responsible environmental outcomes with stakeholders in areas of policies, legislation, regulations and procedures
- Seek out and choosing sustainable energy management strategies where possible
- Partner with external stakeholders to develop and implement environmentally beneficial solutions
- Anticipate regulatory and legislative changes

3. Performance

The organization takes pride in working effectively to manage its resources. Proper facility operations and maintenance, combined with the management of the infrastructure and workforce assets, all must work in concert to maintain the utility's highest possible performance. Therefore, the organization's performance strategies will focus on:

- Optimizing operational and maintenance performance, focusing on ongoing, reliable and sustainable performance improvements
- Effectively managing and controlling workforce costs, specifically salary, benefits and pensions.
- Planning for and implementing the rehabilitation or replacement of the organization's infrastructure assets
- Planning for and effectively balancing the available resources between operations, maintenance and capital expenditures and communicating future resource requirements with our key stakeholders
- Provide regular updates and messages to member agency Boards and Councils regarding issues, needs and interests facing SOCWA.

4. Workforce Success

Workforce development and support play a critical role in effective utility management. The strategies of the Workforce Success concept, outlined below, will allow the organization to recruit and retain a competent, motivated and professional workforce:

- Maintain a participatory, collaborative environment dedicated to continual learning and improvement
- Pursue staff development and cross training.
- Continuously promote a safe, harassment-free workplace environment
- Develop, adopt and adhere to Core Values that will serve to guide our workforce
- Develop concepts of alternative benefits that employees might value.

Work Plans

A Work Plan, drafted by staff, will be presented to the Board of Directors each year for adoption and will be based on the strategies outlined in the Focus Areas. The Work Plan items and action plans which will be divided into external and internal priorities.

Appendix 1

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Project Committees · Participating Agencies · Percentage Ownership

PROJECT COMMITTEE	% OWNERSHIP	DESCRIPTION
Water Reclamation Permits – PC 2SO Capistrano Valley Water District (CVWD)[1] El Toro Water District (ETWD) Irvine Ranch Water District (IRWD) Moulton Niguel Water District (MNWD) South Coast Water District (SCWD) Santa Margarita Water District (SMWD) Trabuco Canyon Water District (TCWD)	**Order 94-03** ETWD IRWD **Order 97-52** CVWD MNWD SCWD SMWD TCWD	This PC was formed in 1991 to promote the beneficial use of treated wastewater through water reclamation in south Orange County and to have a single agency be responsible for administering one set of standard waste discharge requirements. Two regional water recycling permits are administered by SOCWA, one through the RWQCB-San Diego and the other through the RWQCB-Santa Ana.
Jay B. Latham Plant – PC 2 City of San Juan Capistrano (CSJC) Moulton Niguel Water District (MNWD) Santa Margarita Water District (SMWD) South Coast Water District (SCWD)	**Liquids (%)** CSJC – 30.77 MNWD – 23.08 SCWD – 28.84 SMWD – 17.31 **Solids (%)** CSJC – 30.00 MNWD – 21.62 SCWD – 20.00 SMWD – 28.38	The Jay B. Latham Plant, operated by SOCWA employees, treats all of the wastewater from CSJC and a portion of SCWD, which both have interceptors to the plant. MNWD and SMWD have upstream plants so only a portion of their flow is delivered to the Latham Plant via the Oso Trabuco Interceptor. Dewatered biosolids are removed from the facility for disposal or reuse. Secondary treated effluent is either pumped or flows by gravity to the San Juan Creek Ocean Outfall.

[1] CVWD consolidated with the CSJC and is now considered a department of the City

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SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Project Committees · Participating Agencies · Percentage Ownership

PROJECT COMMITTEE	% OWNERSHIP	DESCRIPTION
3A Plant – PC 3A Moulton Niguel Water District Santa Margarita Water District	**Liquids & Solids (%)** MNWD – 76.929 SMWD – 23.071 **AWT (%)** MNWD – 100.00	The SOCWA 3A Plant, operated by SOCWA employees on behalf of MNWD and SMWD, removes some wastewater that would normally flow to the J.B. Latham Plant, for treatment and the production of recycled water. Dewatered biosolids are removed from the facility for disposal or reuse. Secondary treated effluent either flows by gravity to the San Juan Creek Ocean Outfall or is utilized in the production of recycled water at the 3A Plant.
San Juan Creek Ocean Outfall – PC 5 City of San Clemente (CSC) City of San Juan Capistrano (CSJC) Moulton Niguel Water District (MNWD) Santa Margarita Water District (SMWD) South Coast Water District (SCWD) **San Clemente Land Outfall – PC 10** City of San Clemente (CSC)	**Outfall (%)** CSC – 16.62 CSJC – 11.08 MNWD – 15.51 SCWD – 12.47 SMWD – 44.32 **Pump Station (%)** CSC – 0.00 CSJC – 30.41 MNWD – 20.27 SCWD – 29.05 SMWD – 20.27 **Land Outfall (%)** CSC – 100.00	All participating agencies contribute flow to the Ocean Outfall. Tributary plants are the SOCWA J.B. Latham Plant, CSC Water Reclamation Plant, the SMWD Chiquita Plant and the SOCWA 3A Plant. There is an effluent pumping station at the SOCWA Latham Plant that is used during high tide conditions (usually winter months), but the other plants discharge by gravity to the Outfall. Secondary treated effluent from the CSC facility flows through the San Clemente Land Outfall which connects with the San Juan Creek Ocean Outfall at Doheny State Beach. SOCWA operates and maintains the outfall and administers the outfall's NPDES permit. The City of San Clemente operates the land outfall under an O&M Agreement with SOCWA.

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Project Committees · Participating Agencies · Percentage Ownership

PROJECT COMMITTEE	% OWNERSHIP	DESCRIPTION
Coastal Treatment Plant - PC 15 City of Laguna Beach (CLB) Emerald Bay Service District (EBSD) Moulton Niguel Water District (MNWD) South Coast Water District (SCWD)	**Liquid (%)** CLB – 37.91 EBSD – 2.99 SCWD – 29.85 MNWD – 29.25 **AWT (%)** SCWD – 100.00	The SOCWA Coastal Treatment Plant (CTP) is operated by SOCWA employees. Wastewater comes by gravity or pumped through the SOCWA North Coast Interceptor (NCI) from CLB and EBSD. MNWD is expected to begin sending flow to the CTP beginning in 2003. SCWD has its own force main to the CTP. PC 15 also includes the access road from Alicia Parkway to the CTP, and the sludge force main to the SOCWA Regional Treatment Plant (RTP). Solids from the CTP are pumped to the RTP for processing. Secondary treated effluent either flows by gravity to the Aliso Creek Ocean Outfall or is utilized in the production of recycled water at the CTP.
Regional Treatment Plant - PC 17 City of Laguna Beach (CLB) Emerald Bay Service District (EBSD) El Toro Water District (ETWD) Moulton Niguel Water District (MNWD) South Coast Water District (SCWD)	**Liquids & AWT (%)** MNWD – 100.00 **Solids (%)** MNWD – 58.82 ETWD – 20.41 SCWD – 8.96 CLB – 11.22 EBSD – 0.59	The SOCWA Regional Treatment Plant (RTP) is operated by SOCWA employees. MNWD owns all of the liquid capacity at the RTP. In addition to solids generated at the JRP, raw sludge solids from the CTP are delivered by a force main and from the ETWD treatment plant by truck. Dewatered biosolids are removed from the facility for reuse or disposal. Secondary treated effluent either flows by gravity to the Aliso Creek Ocean Outfall or is utilized in the production of recycled water at the RTP.

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Project Committees · Participating Agencies · Percentage Ownership

PROJECT COMMITTEE	% OWNERSHIP	DESCRIPTION
ETM Reaches B/C/D – PC 21 El Toro Water District (ETWD) Irvine Ranch Water District (IRWD) **ETM Reach E – PC 21** El Toro Water District (ETWD) Irvine Ranch Water District (IRWD) Moulton Niguel Water District (MNWD) **Alicia Parkway Pump Station – PC 21** Moulton Niguel Water District (MNWD)	**Reach B/C/D (%)** ETWD – 50.00 IRWD – 50.00 **Reach E (%)** ETWD – 23.29 IRWD – 23.29 MNWD – 53.42 **Pump Station (%)** MNWD – 100.00	The Effluent Transmission (ETM) conveys secondary treated effluent to the Aliso Creek Ocean Outfall. Reach A begins at the IRWD Los Alisos WRP and ends at the ETWD WWTP. IRWD owns and operates Reach A. Effluent from the ETWD WWTP and the IRWD Los Alisos WRP passing through Reach B/C/D combines with effluent from the Regional Treatment Plan at Reach E which flows by gravity to the land and ocean portion of the Aliso Creek Ocean Outfall. The Alicia Parkway Pump Station, which was part of the ETM construction project, pumps raw sewage to the RTP for treated and is operated by MNWD under an O&M Agreement with SOCWA.
North Coast Interceptor – PC 23 City of Laguna Beach (CLB) Emerald Bay Service District (EBSD)	**NCI (%)** CLB – 95.88 EBSD – 4.12	The North Coast Interceptor (NCI) carries raw wastewater to the CTP, either by gravity or with the assistance of two pumping stations, the Laguna Beach Pump Station (downtown) and the Bluebird Pump Station (Bluebird Canyon and Glenneyre). The CLB operates the NCI and the two pumping stations under an O&M Agreement with SOCWA.
Aliso Creek Ocean Outfall – PC 24 City of Laguna Beach (CLB) Emerald Bay Service District (EBSD) El Toro Water District (ETWD) Irvine Ranch Water District Moulton Niguel Water District (MNWD) South Coast Water District (SCWD)	**Outfall (%)** CLB – 11.00 EBSD – 0.78 ETWD – 16.302 IRWD – 15.76 MNWD – 43.848 SCWD – 12.31	The SOCWA Aliso Ocean Outfall discharges secondary treated effluent from the IRWD Plant, the ETWD Plant, the SOCWA RTP and the SOCWA CTP. It is divided into "on-shore" and "off-shore", or marine, portions. The on-shore portion is between the CTP and Pacific Coast Highway. SOCWA operates and maintains the outfall and administers the outfall's NPDES permit.

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Appendix 2

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