



2010

SRCSD State of the District Report



Sacramento Regional County
Sanitation District

Welcome

Message from the District Engineer



Stan R. Dean
District Engineer, 2010

The Sacramento Regional County Sanitation District is proud to present the 2010 State of the District Report. With the guidance and leadership of the SRCSD Board of Directors, we have realized many accomplishments and navigated many critical challenges in 2010.

SRCSD continues to be impacted by the regional economic challenges Sacramento has experienced. The result has been few new users connecting to the sewer system and an overall decrease in revenue. This decreased revenue, coupled with a newly adopted wastewater discharge permit that will cost ratepayers an estimated \$2 billion over the next 10 years to implement, creates a financial situation that must be handled carefully and creatively. While SRCSD continues to look for solutions to help offset these costs, ratepayers will be impacted over the next several years.

“SRCSD continues to be a regional leader in identifying and implementing effective, cost-efficient solutions that protect the environment and our customers.”

Despite these obstacles, 2010 was also a year of great successes and achievements. The entire Upper Northwest Interceptor Project – a critical link in the region’s sewer infrastructure – was completed after more than 10 years of design and construction. The completion of this project marks an 18-mile addition to our interceptor system. SRCSD also maintains its commitment to environmental stewardship by researching and embarking on projects that efficiently reuse and recycle natural byproducts of the wastewater treatment process.

Although 2010 has been a year filled with as many successes and accomplishments as trials and tribulations, one thing remains certain: SRCSD continues to be a regional leader in identifying and implementing effective, cost-efficient solutions that protect the environment and serve our customers. I am extremely proud of the hard work and dedication our staff exhibited in 2010 to fulfill our mission of protecting public health and the environment.

A handwritten signature in black ink that reads "Stan Dean". The signature is written in a cursive, flowing style.

Table of Contents

District Overview	3
System Management	5
Wastewater Discharge Permit Renewal	6
Financial Sustainability	8
Environmental Commitment	10
Looking to the Future	11

District Overview



Who We Are

The Sacramento Regional County Sanitation District (SRCSD) provides regional wastewater conveyance and treatment services to residential, industrial and commercial customers throughout unincorporated Sacramento County; the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento and West Sacramento; and the communities of Courtland and Walnut Grove. The wastewater travels through 168 miles of interceptor pipelines to the Sacramento Regional Wastewater Treatment Plant in Elk Grove, where approximately 150 million gallons of wastewater are treated each day and safely discharged into the Sacramento River.

SRCSD's workforce is employed by the County of Sacramento through the Sanitation Districts Agency. As a special district, SRCSD contracts with the County to provide the workforce that conducts the day-to-day operations of the wastewater treatment and conveyance system.

In 2010, SRCSD experienced changes in several key leadership roles. Stan Dean took the lead as District Engineer in July. Subsequently, Prabhakar Somavarapu was appointed Director of Policy & Planning, and Ruben Robles was appointed Director of Operations. Claudia Goss, Director of Communications, continued her key role throughout 2010, and Marcia Maurer, Chief Financial Officer, retired in November 2010. Recruitment is currently underway for her replacement.

2010 SRCSD Board of Directors

County of Sacramento



Roger Dickinson
District 1



Jimmie Yee
District 2



Susan Peters
District 3



Roberta MacGlashan
District 4



Don Nottoli
District 5

City of Sacramento



Bonnie Pannell



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City of Folsom



Kerri Howell

City of Rancho Cordova



Dan Skoglund

City of West Sacramento



Oscar Villegas

County of Yolo

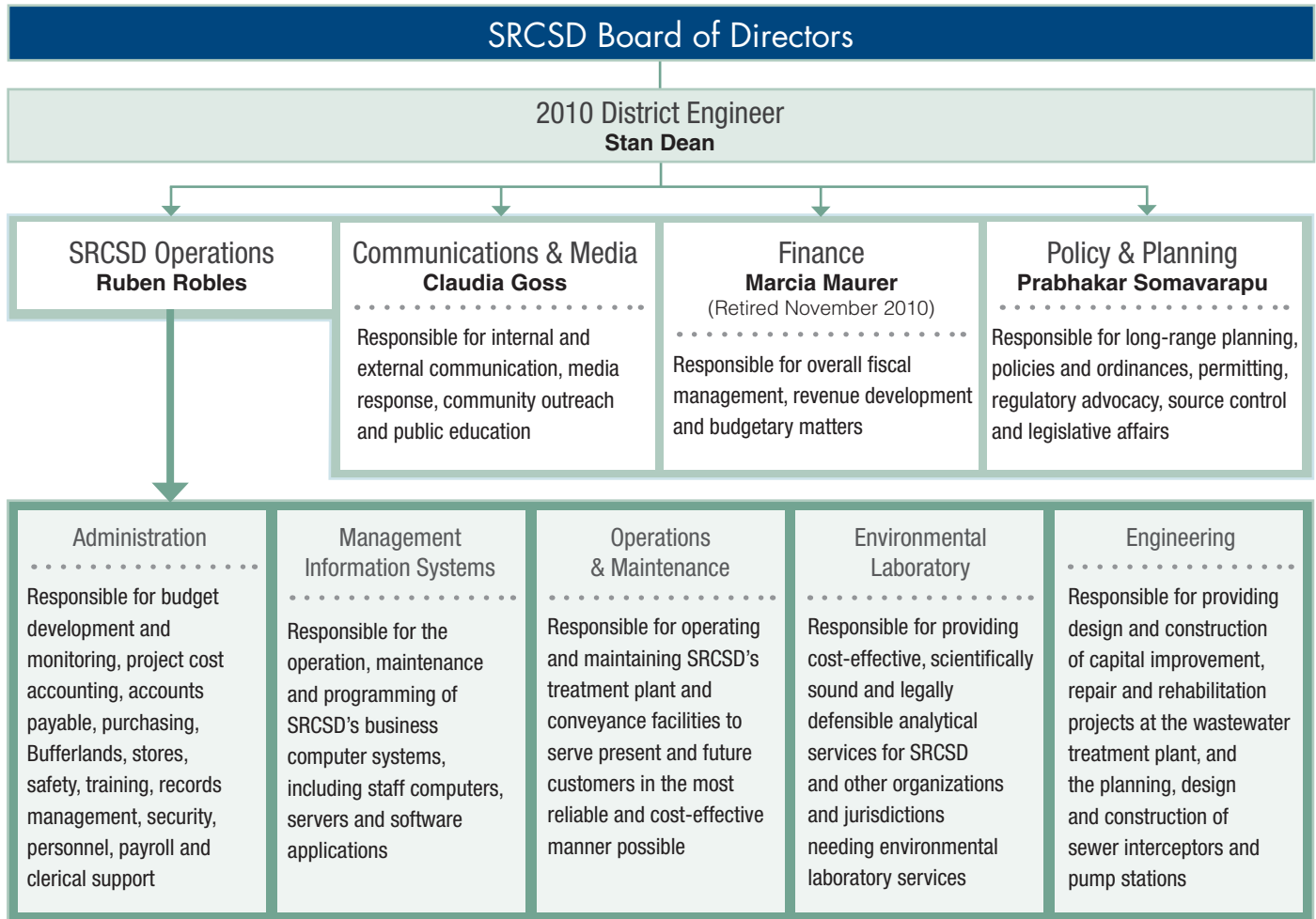


Mike McGowan



2010 Organizational Structure

In 2010, SRCSD was made up of the following departments and sections to serve our customers and execute our mission:



SRCSD QUICK FACTS

- Miles of Pipeline: 168 miles
- Pump Stations: 7
- Treatment Plant Permitted Capacity: 181 million gallons per day
- Annual Effluent Flow: 165,800 acre-feet
- Peak Wet Weather Flow: 300 million gallons per day
- Average Dry Weather Flow: 139 million gallons per day
- Annual Amount of Water Recycled: 893 acre-feet
- Tons of Biosolids Recycled: 4,880 dry tons
- Population Served: 1.3 million in the greater Sacramento area
- Number of Connected Equivalent Single Family Dwellings (ESDs): 575,417 ESDs
- Number of Full-time Employees: 381 full-time employees



System Management

Our wastewater conveyance and treatment systems are critical to the health of the Sacramento region and its residents. Maintaining and managing those systems is a job we take very seriously.

Completion of Upper Northwest Interceptor

After more than 10 years of planning, design and construction, the Upper Northwest Interceptor (UNWI) system is now complete. The last UNWI projects – sections 1, 2, and 9 – were completed in October 2010. The UNWI is now providing service to Orangevale, Citrus Heights, Foothill Farms, North Highlands, North Natomas and a portion of the City of Sacramento. The total capital cost of the UNWI system was \$330 million.

The completion of the UNWI pipeline, along with the existing Lower Northwest Interceptor system, marks the completion of SRCSD's longest interceptor reach that extends nearly 40-miles from Citrus Heights to North Natomas through West Sacramento and to the treatment plant in Elk Grove. It consists of pipe sizes ranging from 36-inches to 144-inches in diameter, as well as three large pump stations – the largest of which is rated for 221 million gallons per day.

Engineering Rehabilitation Highlights

- **Process Computer Control System (PCCS) Upgrade:** Hardware components of the existing PCCS system were no longer supported by the manufacturer. The components were replaced, and existing control systems were transferred to the new system without interrupting the treatment process.
- **Dissolved Air Flotation Thickeners (DAFT) Rehabilitation:** The existing DAFTs, which are used to thicken solids, were experiencing severe corrosion and failure due to aging equipment. Instead of replacing the equipment, detailed condition assessment and designs were developed to extend the life of the existing equipment. Specific items were identified to be addressed for corrosion and failed equipment. The four process units will be worked on one at a time to ensure enough process capacity. The last DAFT rehabilitation is expected to be complete by March 2012.
- **Cathodic Protection Systems Rehabilitation:** Existing cathodic protection systems – which are in place to prevent corrosion of buried critical process pipelines – are in need of replacement. The lack of cathodic protection exposes these critical assets to reduced life or premature failure. The first phase identified 11 critical process lines for rehabilitation. Work is underway and scheduled for completion by spring 2011.

Interceptor Planning

As part of its interceptor planning process, SRCSD continued evaluating system infrastructure needs throughout 2010. The continued downturn in the region's economy and slowed development triggered an Interceptor Sequencing Study (ISS) in 2009 that continued in 2010.

The goal of the ISS was to identify changes to the District's Interceptor Master Plan and specify funding and planning needs for implementation of potential new regional wastewater conveyance projects. The development of the ISS has required close coordination with SRCSD's contributing agencies, including the Sacramento Area Sewer District and cities of Folsom, Sacramento and West Sacramento.

To help achieve the long-term goals outlined in the ISS, a mid-range planning component was also established. The mid-range plan, which encompasses the East Sacramento County and City of Folsom Sphere of Influence development areas, will address the wastewater conveyance needs for these areas. SRCSD is working closely with contributing agencies to develop plans that provide reliable, cost effective service while remaining flexible to accommodate varying developmental patterns and growth rates.

SRCSD plans to present the final ISS to the Board of Directors for adoption in mid-2011.

Operations & Maintenance Highlights

- **Disinfection Efficiency Study:** This study was conducted to evaluate and identify opportunities to optimize SRVWP's disinfection treatment process. Following research, it was determined that disinfection efficiencies could be improved by modifying the operation of the oxidation tanks. Armed with this information, SRCSD will now be able to use lower levels of chlorine for disinfection.
- **Solids Storage Basins Optimization Study:** The goal of this study was to investigate reduction of ammonia in the effluent and the impacts to pond health, energy use, conveyance equipment and odor generation. Historically, the surface of the ponds have been flushed with water to reduce the formation of pipe clogging minerals and improve pond health. It was found that for the short term, discontinuing flushing at the solids storage basins (SSBs) did not pose a significant risk to the conveyance equipment or pond health. By temporarily discontinuing this flushing, the District reduced its effluent ammonia load by roughly 12%. The study is ongoing to determine the long-term viability of discontinuing the SSBs flushing.
- **North COT Startup:** This study resulted in the successful startup of four carbonaceous oxidation tanks (COTs) that had been previously unavailable for operation due to hydraulic issues. The study confirmed the need to have equalized aeration pressures between all tanks in order to successfully operate. The availability of these COTs will provide operations the full capacity of the secondary system that will be required for future loads.

Wastewater Discharge Permit

Delta Crisis Impacts the District's Regulatory Process

Political and scientific debates about the Sacramento-San Joaquin Delta reached a high pitch in 2010, as experts and scientists throughout the State - and even nationally - developed theories and proposed causes and solutions for the ecological decline in the Delta. SRCSD was actively engaged in these discussions throughout the year.

New Wastewater Discharge Permit Adopted

Throughout 2010, increased scrutiny was directed at Sacramento Regional Wastewater Treatment Plant's (SRWTP's) discharge as a possible contributor to the decline of certain Delta fish species. SRCSD was extensively engaged in the many Delta policy discussions and Delta governance bodies. During this process, SRCSD's three core tenants were (1) ecological solutions should come out of sound scientific analysis; (2) the cost to implement solutions should be shared among all who benefit; and (3) all potential Delta stressors should be studied to ensure the largest impacts are tackled first and that solutions provide measureable benefits.



After numerous studies and analyses conducted in 2010, the District felt there was a lack of conclusive science that directly connected SRWTP's discharge with significant effects on fish or the Delta ecosystem. During the year, SRCSD spent time informing the region's leaders about the scientific facts and setting the record straight in the community.

In September, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) issued a draft National Pollutant Discharge Elimination System Permit (Draft Permit) for SRWTP. New levels of treatment

were outlined in the Draft Permit – some of which were unprecedented in the State. SRCSD's cost projections for the significant improvements required to implement the Draft Permit were estimated at \$2 billion, with an additional \$77 million per year in operations and maintenance costs for the new facilities.

SRCSD had 30 days to provide written comment on the Draft Permit to the Central Valley Water Board in advance of the public hearing. During this time, SRCSD prepared and submitted detailed written comments and scientific data to the Central Valley Water Board and concurrently worked to educate the community about the cost of the improvements and projected ratepayer impacts.

On December 9, 2010, the Central Valley Water Board held a hearing on the Draft Permit. Despite widespread community concerns about the high cost of the significant new conditions outlined in the permit, the Central Valley Water Board unanimously adopted the Permit. The new Permit now contains mandates that require SRCSD to begin the process to plan, design and build new treatment facility upgrades for ammonia removal, nitrate removal, filtration and disinfection.

The following main arguments outline the basis for SRCSD's plans to appeal the decision to the State Water Resources Control Board: (1) some of the new mandates established in the Permit were not justified by sound science and thorough analysis of existing data; (2) the Central Valley Water Board did not adequately consider the high costs for facility upgrades; (3) there were questionable methods used during the permit renewal process to justify permit conditions; and (4) during the public comment period, SRCSD's requests for more evidence were not addressed.

The State Water Resources Control Board will have about nine months to review the permit appeal and the Central Valley Water Board's action before making a decision on the appeal. In the meantime, SRCSD must continue to move forward in complying with the new Permit's conditions.

Plans for 2011

In 2011, the goal will be to seek out cost effective treatment options while maintaining our commitment to protect the environment.

A team of District technical staff and nationally recognized experts on treatment process selection, design, construction and operation will work to identify and evaluate potential treatment processes, with the goal of selecting a manageable number to move forward with pilot studies. After selecting the most promising treatment process technologies, the team will identify which of those technologies require pilot studies and establish the parameters and objectives of those studies.

The technology selection and pilot studies must be completed within two years to provide adequate time for the design, construction and commissioning of all new facilities to meet the ten year timeline specified in the new Permit.

Pollution Prevention Plans & Special Studies

The new Permit requires the development and implementation of Pollution Prevention Plans (PPPs) for a number of specific pollutants.

Just as with existing pollution prevention programs – such as mercury, pesticide and pharmaceutical reduction – SRCSD will meet the requirements of the Permit by developing a PPP for salts (salinity) and several nonconventional pollutants.



2010 Compliance Performance Summary

CONSTITUENT	SRWTP 2010 PERFORMANCE				NPDES PERMIT LIMITATION	PERCENT COMPLIANCE
		Minimum	Maximum	Average	Maximum Average	
BOD (mg/L)	Daily	4	21	8	60	100
	Weekly	5	13	8	45	100
	Monthly	6	10	8	30	100
	% Removal	96%			Minimum 85%	100
TSS (mg/L)		Minimum	Maximum	Average	Maximum Average	
	Daily	3	16	7	60	100
	Weekly	4	11	7	45	100
	Monthly	5	8	7	30	100
% Removal	96%			Minimum 85%	100	
Total Coliform (MPN/100 ml) –	Weekly	Minimum	Maximum		Maximum Average	
	Median	<2	7		23	100
Chlorine Residual (mg/L)		Minimum	Maximum		Maximum Average	
	Daily	0.000	0.006		0.018	100
	Monthly	0.000	0.0002		0.011	100
pH	1-hour Average		Maximum		Maximum	
			7.0		7.5	100
	20-min. Average	Minimum	Maximum		Minimum = 6.0	100
	6.1	7.9		Maximum = 8.5	100	
Mercury (Mass lb.)	Annual Total	Estimated to be about 1.5 lbs.			5.1	100

Financial Sustainability



To maintain quality and reliable service for our customers, we must maintain financial stability and provide sufficient funding from rates and fees to operate the system.

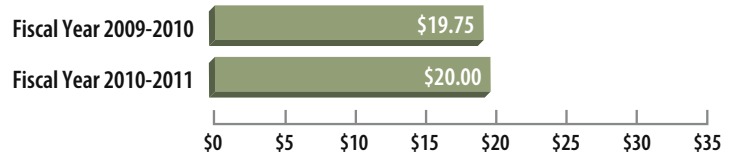
Overview & Impacts of Economic Situation

The Sacramento region's economic downturn continued to adversely affect SRCSD in 2010. Growth trends continued to be below historical norms. SRCSD's revenue is primarily generated from two sources: monthly customer rates and sewer impact fees paid by growth – or new users to the system. During the last three years, growth in the region took a substantial downturn. While revenue from monthly customer service rates has remained fairly constant, revenue from sewer impact fees has continued to decline. Sewer impact fees collected from 2003 to 2007 varied between \$40 million and \$58 million. In 2009, sewer impact fee revenues dropped to \$13 million, and in 2010 they dropped again to \$8.3 million.

In response to the decline in new construction and the continuing decrease in revenue, SRCSD implemented a number of adjustments to its overall financial plan. These adjustments included significantly reducing operating expenses, eliminating or delaying capital projects and programs, prepaying bonds to reduce debt payments and using rate stabilization reserve funds to cover shortfalls.

Projected rates and fees will be established following completion of the Rate & Fee Study.

Current Monthly Service Charges



Current Sewer Impact Fees

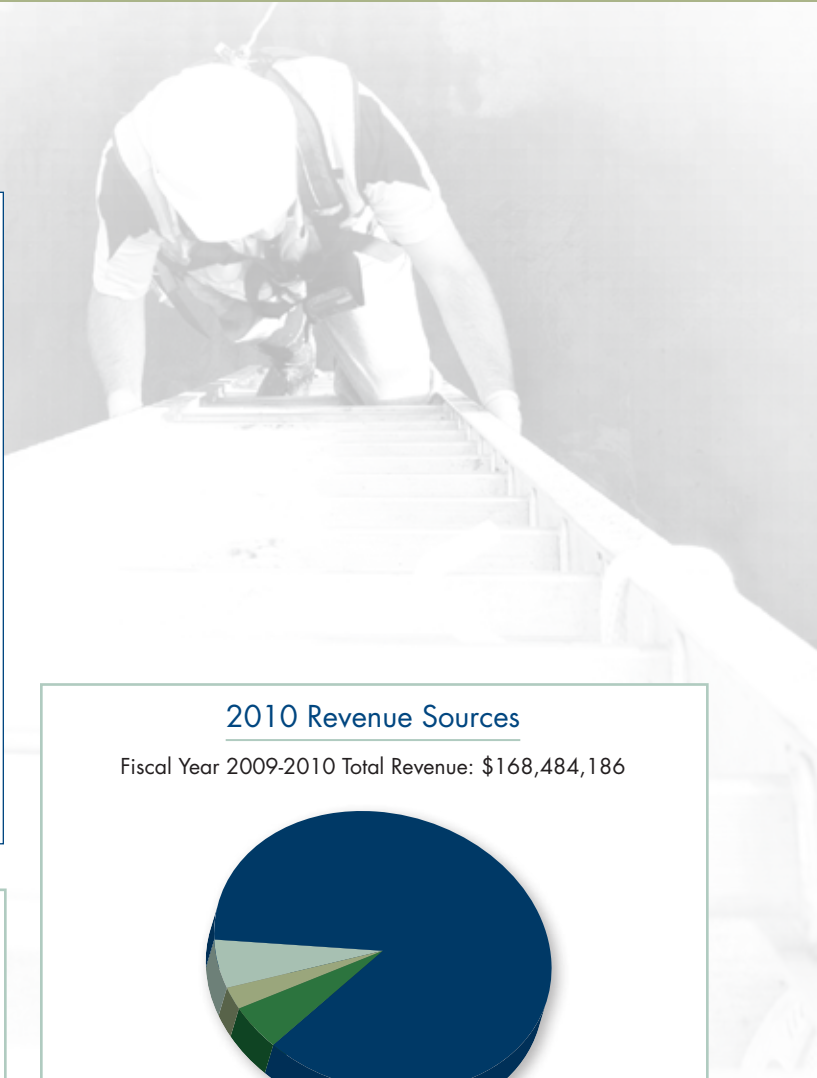


Rate & Fee Study

In the summer of 2009, SRCSD began a Rate & Fee Study (Study) to evaluate its existing rate and fee structures and determine if the current structure – or a different structure – would be best for the future of SRCSD and its customers. The goal of the Study is to ensure revenue stability and equity among different categories of ratepayers. In early 2010, SRCSD decided to delay completion of the Study until the new Permit was adopted and more details of the treatment requirements and associated expenses were known.

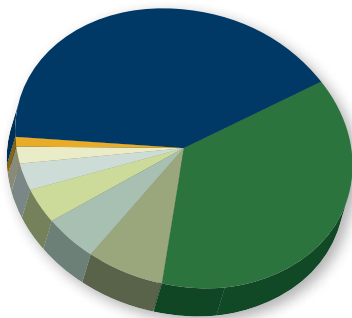
The Study resumed following the adoption of the final discharge permit in December 2010. The costs associated with the new treatment requirements will have a significant impact on future rates and fees.

SRCSD will review cash and reserve management policies to determine if adjustments or modifications should be considered. At that time, projected rates and fees will be established. The results of the Study will likely be reviewed by the SRCSD Board of Directors in late 2011.



How Did SRCSD Spend Rate Dollars in 2010?

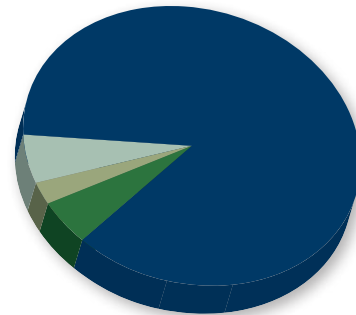
Based on \$20.00 per month service charge



Treatment Plant O & M	\$8.27	41%
Construction Program	\$7.45	37%
Interceptor O & M	\$1.33	7%
Administration	\$1.00	5%
Laboratory	\$0.70	4%
Source Control	\$0.68	3%
Policy & Planning	\$0.39	2%
Bufferlands	\$0.18	1%

2010 Revenue Sources

Fiscal Year 2009-2010 Total Revenue: \$168,484,186



Monthly Service Charges	\$146,696,150	87%
Sewer Impact Fees	\$8,303,093	5%
Interest Revenue	\$4,130,967	2%
Other Revenue	\$9,353,976	6%



Environmental Commitment



Our commitment to environmental stewardship is the foundation of SRCSD's mission. Attention and dedication to protecting the environment is paramount in everything we do, and 2010 was no exception. We continued to work diligently to further evolve our "green" policies and programs to improve the region's health and help protect the 1.3 million people we serve every day.

Biogas Enhancement Study

SRCSD, in partnership with the Sacramento Municipal Utilities District (SMUD), successfully completed the Biogas Enhancement Pilot Study in December 2009. The goal of this effort was to evaluate the effects of injecting fats, oils and grease directly into a test anaerobic digester and determining whether the production of biogas – also known as methane gas – could be increased or enhanced. That biogas could then be used to generate electricity.

A small scale pilot facility was constructed and operated at SRWTP during the study. Additional biogas was generated without adverse effects on the treatment process.

As a result of the pilot study's success, SMUD submitted a grant application for the development and implementation of a full-scale Biogas Enhancement Project at SRWTP. The project was awarded the grant, totaling about \$1.55 million.

The full scale facility will be constructed by the end of 2012.

Legislative Efforts to Recapture and Reuse Recycled Water

SRCSD worked with Senate Pro Tem Darrell Steinberg and Assembly Member Roger Dickinson on two legislative proposals to help SRCSD. One seeks direct funding assistance in the amount of \$50 million to help pay a portion of SRCSD's facility upgrades required by the new permit. The second legislative proposal is an amendment to the State Water Code. The amendment would enable SRCSD to apply to the State Water Board for a water rights permit for an equivalent amount of water that SRCSD treats and discharges to the Sacramento River. This legislation would provide SRCSD with another option to market and sell recycled water. Revenue generated could help offset the high costs of required upgrades at the wastewater treatment plant to meet new Permit requirements. These efforts will continue to evolve during 2011.

Ongoing Progress to Expand Water Recycling

2010 provided additional opportunities to engage stakeholders and evaluate a variety of water reuse projects that could help with effluent management alternatives, water supply reliability and habitat restoration activities – both in and out of the Sacramento region.

South Sacramento County Agriculture & Habitat Lands Recycled Water Project

This project proposes to use SRCSD's recycled water to irrigate permanent agriculture, habitat and mitigation lands in south Sacramento County. A preliminary feasibility study indicated the potential to irrigate 2,000 to 8,000 acres of land with recycled water. In 2010, several potential funding sources were identified that could help offset project costs. Outreach was performed to the Sacramento County Farm Bureau and others to familiarize them with the use of recycled water and to identify areas where they might find additional information regarding recycled water use related to agriculture.

As part of this project, SRCSD initiated efforts to establish the Sacramento Water Recycling Coalition to advance the use of recycled water in south Sacramento. The objective of the coalition – comprised of local municipalities, water purveyors, agricultural interests and environmental organizations – is to identify, develop and promote opportunities for the use of recycled water and garner political support and funding for those opportunities.

Phase II Water Recycling Expansion Project

This project aims to expand the use of recycled water from 5 million gallons per day (mgd) to 10 mgd to customers located in the East Franklin and Laguna Ridge communities in Elk Grove. In 2010, SRCSD completed project design and continued to look for additional state and federal funding assistance.

Evaluation of Recycled Water Service for SMUD Cogeneration Facility

In 2010, SMUD, the City of Sacramento and SRCSD teamed up to evaluate the feasibility of providing recycled water to the SMUD Cogeneration Facility located at the Campbell Soup Plant in South Sacramento. In December 2010, SRCSD entered into an agreement with the Regional Water Authority (RWA) to seek Proposition 84 grant funding for the project. A grant application for this funding opportunity is expected to be submitted through RWA in early 2011.

Looking to the Future

We are in the midst of – arguably – the most challenging era in SRCSD’s history. The Sacramento region’s current economic recession, coupled with the cost of about \$2 billion in wastewater treatment plant upgrades over the next 10 years, means we have our work cut out for us in 2011 and beyond.

As much of 2011 will be spent evaluating and identifying the most effective and cost-efficient technologies to implement the requirements outlined in the new Permit, we will also be working diligently to identify opportunities to help offset costs to our customers – be it through legislation that allows us rights to our water, pursuit of Federal and State funding or other avenues. As always, our goal is to appropriately balance environmental benefits against the cost to our ratepayers.

Parallel to the Permit-related efforts, through the Rate & Fee Study, we will also be working to determine if our existing rate and fee structures – or a different structure – is best for the future of SRCSD and our ratepayers. Our goal is to present study results and a recommended approach to our Board of Directors in 2011 that ensures revenue stability and equity among different categories of ratepayers.

One thing we can count on is that 2011 will be full of change. SRCSD stands ready to continue protecting public health and the environment through reliable and safe conveyance, treatment and discharge of the region’s wastewater. Regardless of the changes we experience, SRCSD will – through innovation and creativity – identify opportunities for more efficient and effective service for our customers and continued environmental stewardship.



Our Mission

SRCSD serves its customers by providing reliable conveyance, treatment and discharge of wastewater in the most cost-effective and safe manner possible.

Learn more at www.srcsd.com.



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