



10 YEAR UPDATE REPORT

2004-2014

BACKGROUND



10 Years of Sustainable Progress

Sacramento Regional County Sanitation District (Regional San) is the Sacramento region's wastewater conveyance and treatment agency, serving more than 1.4 million people each and every day. We provide reliable service to residential, commercial and industrial customers. We receive an average of 150 million gallons of wastewater per day at our Sacramento Regional Wastewater Treatment Plant (SRWTP) in Elk Grove, where we treat and safely discharge it to the Sacramento River.

Regional San began treating a portion of the wastewater through additional filtration and disinfection at our small, on-site water recycling facility (WRF) in 2003. The WRF can produce up to 3.5 million gallons per day (MGD) of recycled water.

This report provides a recap of Regional San's efforts from 2004 to 2014 in our work to sustain current water recycling efforts and to plan, promote, fund and implement future opportunities.

This report comes at a time when severe drought is ravaging the state of California. Impacts from drought have brought an increased spotlight to water recycling and the benefits it can provide. More than ever, the Sacramento region and the entire State of California need to increase use of recycled water, and investigate and implement new sustainable water supply projects.

Recycled Water is highly purified wastewater that has undergone additional filtration and disinfection processes to make it safe for non-potable uses such as landscape, park, golf course and agriculture irrigation; industry use; cooling water for power plants; and habitat restoration.

Water recycling is one of the most promising ways of stretching our limited water resources to meet the future needs of a changing California. Through innovative reuse strategies, we can improve regional water supply reliability and improve the health of natural systems that depend on water.

Maurice Hall
Water Science and Engineering Lead
The Nature Conservancy's
California Water Program

Our Vision for Water Recycling

In addition to our existing water recycling efforts, Regional San envisions a large-scale Water Recycling Program with the following goals:



Increase water recycling throughout the Sacramento region by up to 30 to 40 million gallons per day by 2024.



Increase utilization of recycled water to expand Regional San's treated wastewater management options beyond continued discharge to the Sacramento River.



Increase recycled water use to reduce demands on existing and future potable supplies.



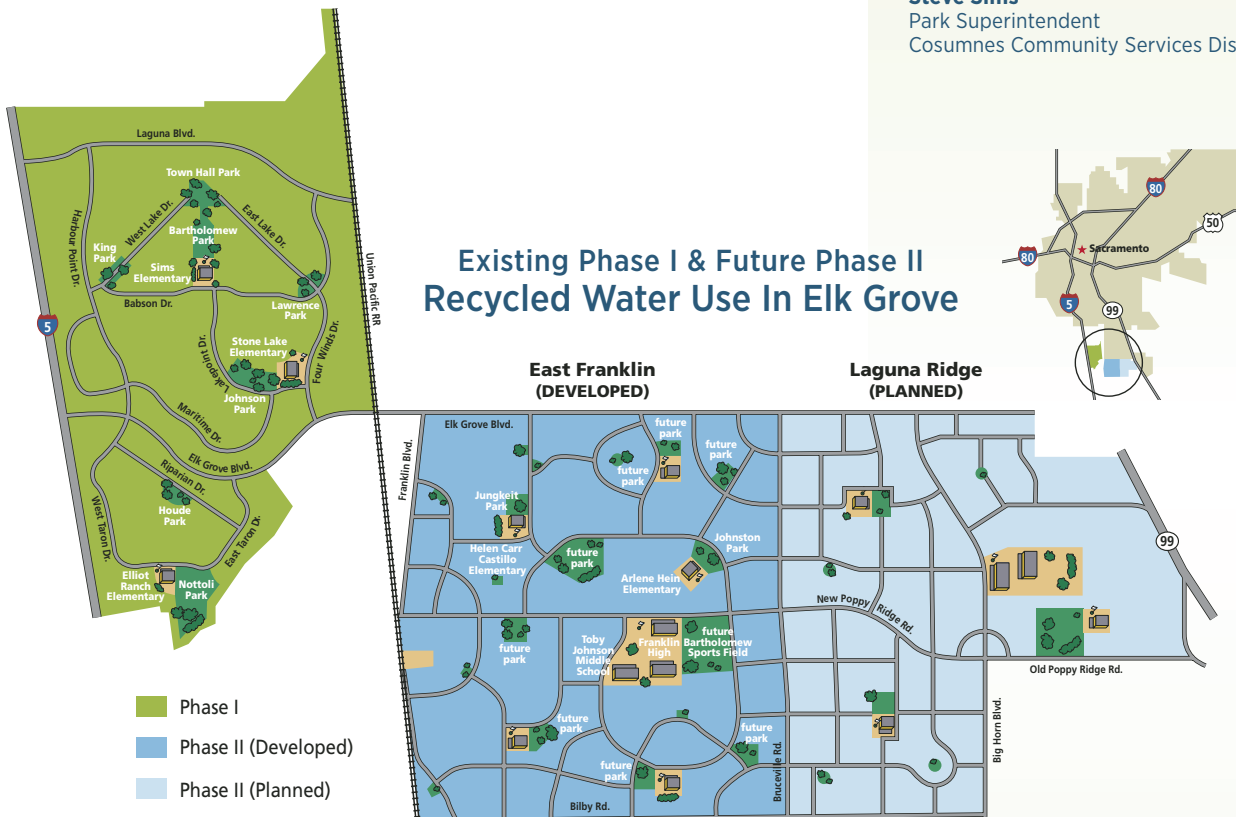
Use our water assets in an environmentally responsible manner.

Current Water Recycling in Elk Grove: Ongoing and Successful

Regional San's current Water Recycling Program is a partnership between Regional San and the Sacramento County Water Agency (SCWA). Recycled water produced at the WRF is used to irrigate parks, landscape medians and school fields in the Laguna West, Lakeside and Stone Lakes developments in Elk Grove, CA. Regional San monitors recycled water quality, while SCWA distributes the water to customers and monitors its use. This partnership helps preserve precious groundwater supplies, while keeping these open spaces green, healthy and usable.

Recycled water sustains the environmental benefits of landscaping without taxing the increasingly limited water supply. Our expansive landscape infrastructure continues to thrive during the drought thanks to the availability of recycled water.

Steve Sims
Park Superintendent
Cosumnes Community Services District



The total amount of water Regional San recycled between 2003 and 2014 for use in Elk Grove.

SCWA's successful partnership with Regional San has provided over 3.4 billion gallons of recycled water since 2003 for irrigation in Elk Grove. Recycled water is an important part of SCWA's long-term water supply, and we look forward to continued collaboration with Regional San to make the best use of this resource in our region.

Michael Peterson
Director
Sacramento County Water Agency

ACCOMPLISHMENTS 2004-2014

A Decade of Planning, Promoting, Partnering

Beyond our current Elk Grove recycled water efforts, Regional San is working diligently to develop a number of innovative water recycling projects to address the needs of the region and continue progress toward the goal of a large-scale Water Recycling Program. From 2004 to 2014, much time was spent on planning, financial analysis, stakeholder coordination and developing partnerships for a number of potential water recycling projects.

In addition, in December 2010, a new regulatory mandate was issued by the Central Valley Regional Water Quality Control Board to treat all of Regional San's wastewater to tertiary level or "Title 22 equivalent effluent" by 2023. Upon compliance with these requirements, all of Regional San's approximately 150 million gallons per day could be available for additional water recycling opportunities.

Below is a recap of water recycling related efforts and projects that Regional San pursued during the decade from 2004-2014.



Water Recycling Opportunities Study (Complete)

In 2007, Regional San, in collaboration with regional stakeholders, completed the Water Recycling Opportunities Study (WROS). The WROS identified and analyzed at a high level the most viable recycled water projects that could potentially allow Regional San to meet its goal of expanding recycled water use in the region. The WROS recommended implementing projects near the SRWTP due to their cost-effectiveness.



Sacramento Power Authority Cogeneration (Cooling Water) Project

(Feasibility Study complete, design in progress)

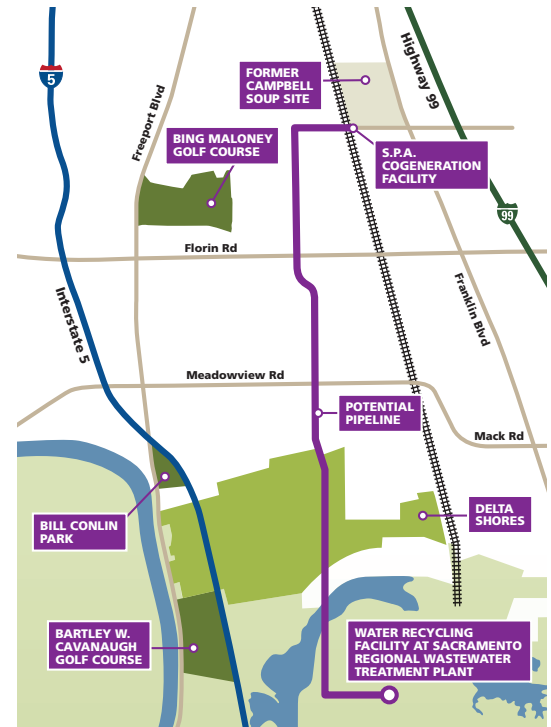
Regional San, in partnership with the Sacramento Power Authority (S.P.A.) and the City of Sacramento, plans to provide recycled water to a cogeneration facility in south Sacramento. This project would provide approximately 1,000 acre-feet per year of recycled water for cooling purposes at the cogeneration facility, thereby reducing consumption of precious drinking water resources. The transmission pipeline would initially convey recycled water from the wastewater treatment plant to the facility, but will be configured to serve other nearby users in the future.

Anticipated recycled water use:

1,000 acre-feet per year



S.P.A. Project and Future City of Sacramento Projects



Note: Not all potential uses are shown on map (above).

SMUD and the Sacramento Power Authority look forward to working with Regional San on projects that help reduce the region's dependence on potable water supplies. It's important that organizations such as ours work collaboratively to ensure a more sustainable future for the Sacramento region.

Scott Flake

Manager, Power Generation
& Project Development
SMUD



City of Elk Grove Phase II Expanded Irrigation – East Franklin and Laguna Ridge Areas (Future Project)

Expanding the current recycled water deliveries to additional subdivisions in the East Franklin and Laguna Ridge areas of Elk Grove is planned. Pending funding availability and required treatment plant upgrades, this project could be synergistically implemented with the South County Ag Program to further reduce transmission piping costs.

Anticipated recycled water use:

Up to 2,600 acre-feet per year



South County Agriculture and Habitat Lands Recycled Water (South County Ag) Program

(Feasibility Study complete, future expansion project)

The South County Ag Program is a multi-faceted program that could provide drought-proof irrigation water to agriculture and habitat lands that are currently using ground and surface water, thus minimizing reliance on these water supplies. The program proposes to use tertiary-treated recycled water to irrigate up to 18,000 acres of permanent agriculture and habitat mitigation lands in southern Sacramento County.

Other benefits of this project include its potential to raise groundwater elevation in the Sacramento Central Basin, promote wildlife habitat and reduce discharge of treated effluent to the Sacramento River.

Anticipated recycled water use: Up to 52,000 acre-feet per year (for largest program size)

Future Projects Within City of Sacramento

(Feasibility Study complete, future expansion project)

The transmission line serving the S.P.A. Cogeneration Facility opens the door to additional opportunities in the southern part of the City of Sacramento. Regional San is working closely with the City to identify potential sites that could use recycled water, such as school fields, parks, golf courses, and landscaped street medians.

Anticipated recycled water use: Up to 1,700 acre-feet per year



Recycled Water Truck Program (Future Project)

Regional San is developing a Recycled Water Truck Program to expand its recycled water opportunities and help support the statewide efforts to conserve water and provide sustainable water supplies to deal with recurring drought conditions. The concept is to provide connection points at SRWTP and in the offsite distribution system to allow water tanker trucks, street-sweepers, and others to fill up their water tanks with recycled water.



Other Future Opportunities

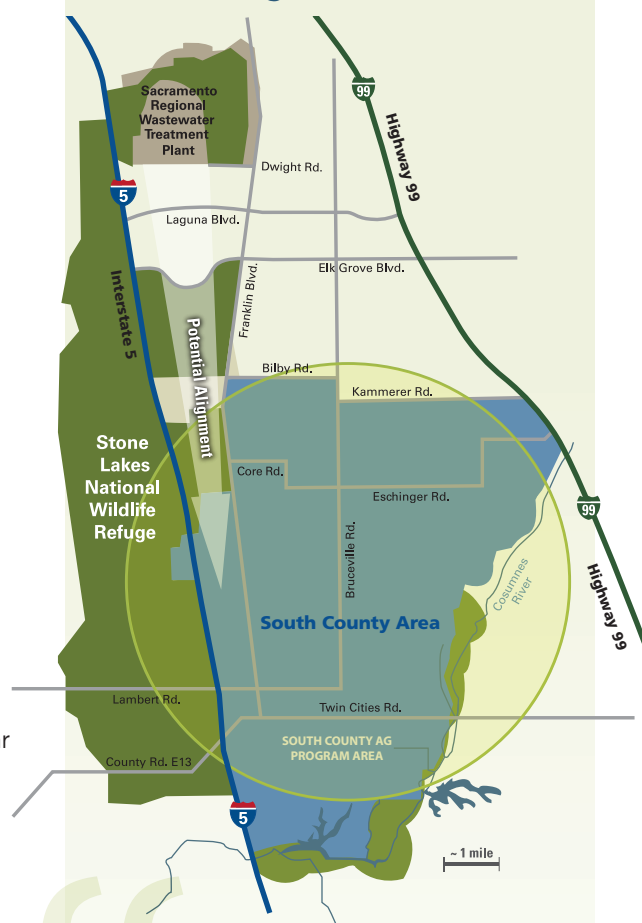
Regional San is implementing a major upgrade to its wastewater treatment plant to meet strict new regulatory requirements. As a result, more water will be available for recycling. In the coming years, Regional San will continue to work with its regional partners and collaborators to implement sensible water recycling efforts.



Recycled water has had a great start in Elk Grove, and the City looks forward to continued collaboration with Regional San and SCWA to improve access and explore new and creative ways to expand the use of recycled water in the City of Elk Grove and South County.

Darren Wilson
Planning Director
City of Elk Grove

South County Ag Program Area



The farming and ranching community consistently looks for ways to assure their long-term sustainability. Use of recycled water can help in promoting groundwater restoration and providing a drought-proof water supply, and those efforts should be actively pursued.

Charlotte Mitchell
Executive Director
Sacramento County Farm Bureau

PARTNERSHIPS

Stakeholder Coordination and Partnerships

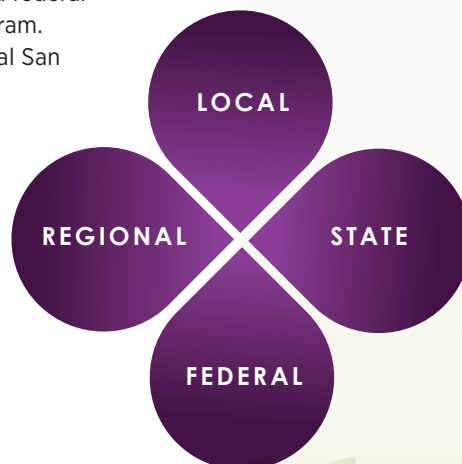
Regional San builds partnerships with local, regional, state, and federal agencies to support the expansion of its Water Recycling Program. Examples of the many agencies and organizations that Regional San has been working closely with over the past decade include:

Local and Regional Coordination

- City of Sacramento
- County of Sacramento
- City of Elk Grove
- Sacramento County Water Agency
- Sacramento Central Groundwater Authority
- Regional Water Authority
- Sacramento Power Authority
- SMUD
- Sacramento County Farm Bureau
- Ducks Unlimited
- The Nature Conservancy
- Friends of Swainson's Hawk
- Sierra Club
- San Francisco Estuary Institute

State and Federal Agency Coordination

- State Department of Water Resources
- State Water Resources Control Board
- Central Valley Regional Water Quality Control Board
- United States Bureau of Reclamation



Recycled water is an important and growing component of the Sacramento Region's water portfolio. Along with coordinated management of our surface and groundwater resources and aggressive water conservation programs, recycled water contributes to our regional water self-sufficiency. RWA strongly supports continued planning and implementation of recycled water projects that help provide our region with high quality, sustainable water supplies.

John Woodling
Executive Director
Regional Water Authority

Ongoing drought conditions highlight the need to find new solutions to provide water for our economy and environment. These solutions will require collaboration and leadership. With Regional San, the City of Sacramento will continue to look for potential new ways recycled water can help augment our water supplies and reduce impacts to our customers during recurring drought conditions.

Bill Busath
Interim Director
City of Sacramento, Department of Utilities

Legislation, Advocacy and Grant Efforts

Regional San advocates for balanced solutions to address water quality and water supply reliability. Efforts focus on advancing funding opportunities that promote water recycling infrastructure for our region and pursuing new markets for Regional San's recycled water asset. A key effort in the 2014 timeframe included the introduction of federal bill HR 4266 (Matsui, Bera and Garamendi) that would authorize the U.S. Bureau of Reclamation to fund up to \$30 million for the design and construction of Regional San's South County Ag Program.

At the state level, Regional San has been engaged in the myriad of Delta sustainability efforts and California Water Bond negotiations since 2006. Regional San has advocated that any Water Bond framework recognizes water recycling as a key component in the development of both new water supplies and enhanced reliability, and that the State help finance and streamline the development of water recycling projects.

Integrated regional water management has been a continued focus area. Regional San, in collaboration with the Regional Water Authority and other regional stakeholders, helps to promote and advance wastewater treatment quality and recycled water projects in our region through the American River Basin Integrated Regional Water Management Plan (ARB IRWMP). Several projects sponsored by Regional San have received state grant funding via the ARB IRWMP. Regional San continues to work with the Regional Water Authority and other regional stakeholders to update the ARB IRWMP and promote the implementation of water-related projects that can provide multiple benefits to the Sacramento region.

Regional San has been successful in securing more than \$3.8 million in state and federal grants for its water recycling program. Continued focus on legislation, advocacy and identification of grant opportunities will remain a high priority for Regional San.



I applaud the Sacramento Regional County Sanitation District for being proactive and finding ways to help with California's water problems. Their innovative projects, such as the South County Ag Program, can provide reliable recycled water for agriculture, reduce groundwater pumping and support habitat restoration efforts and Delta sustainability.

Congresswoman Doris Matsui
6th Congressional District

Upcoming Milestones

A number of exciting milestones are on the horizon for Regional San – some nearer term, and some further out. In 2016 we expect to begin delivering recycled water to the Sacramento Power Authority Cogeneration Plant in South Sacramento. This water will offset about 1,000 acre-feet per year of potable water used for cooling purposes.

With the future completion of Regional San's State-mandated wastewater treatment plant upgrades – known as the "EchoWater Project" – in 2023, nearly all of the Plant's treated wastewater will meet recycled water standards, and will be available for projects like the South County Ag Program and additional phases of irrigation in the cities of Sacramento and Elk Grove (as described on page 4 of this report).

Regional San will continue to aggressively pursue these and other opportunities to achieve our goal of a large-scale water recycling program – with the intent to sustain regional water supplies, benefit current and future ratepayers, and safeguard and enhance the environment.



For more information on Regional San, our programs, projects and mission, please visit www.regionalsan.com



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