

2022

STATE OF THE DISTRICT



REGIONAL SAN

TAKING THE WASTE OUT OF WATER

Message from the General Manager



View a video message from Christoph Dobson, Regional San's General Manager, by scanning this QR code with your cell phone's camera.



VISION

Regional San is a leader in environmental stewardship and a trusted partner in regional sustainability

MISSION

To protect public health and the environment by conveying, treating, and recovering resources from wastewater responsibly and cost effectively

VALUES

Responsibility
Resolve
Proficiency
Environmental Stewardship

TABLE OF CONTENTS

Protecting Public Health and the Environment	1
Managing Our Assets and Building for the Future	2
Financial Overview	4
Community Connections	6
Commitment to Environmental Stewardship	8
Living Our Values	9



Protecting Public Health and the Environment

Since 1973, the Sacramento Regional County Sanitation District (Regional San) and its staff have continually carried out our mission to protect public health and the environment by conveying, treating, and recovering resources from wastewater—responsibly and cost-effectively. As the largest inland wastewater discharger west of the Mississippi River, we serve about 1.6 million people throughout unincorporated Sacramento County; the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento; and the communities of Courtland, Locke, and Walnut Grove.

Wastewater travels through an intricate network of underground sewer pipes and is conveyed to the Sacramento Regional Wastewater Treatment Plant. There, the wastewater is treated and safely discharged to the Sacramento River. In normal weather years, we treat an average of 135 million gallons of wastewater per day.

Regional San is committed to being a leader in environmental stewardship, which is demonstrated in many of our efforts. Our landmark recycled water project—Harvest Water—is being designed to provide a safe and reliable supply of recycled water for agricultural uses that will reduce groundwater pumping and support habitat protection for wildlife. Our future BioGeneration Facility will produce electric power using digester gas (methane) generated by the solids treatment process. These projects are bringing Regional San one step closer to our vision of providing regional sustainability. Learn more about these efforts in the Commitment to Environmental Stewardship section.

Regional San is governed by a 17-member Board of Directors representing the various communities we serve. Our Board consists of the five Sacramento County Board of Supervisors; one Yolo County Supervisor; five council members from Sacramento; two council members from Elk Grove; and one council member each from Citrus Heights, Folsom, Rancho Cordova, and West Sacramento.



2022 FAST FACTS

Miles of Interceptor Pipelines:

169

Population Served:

1.6 MILLION

Treatment Plant Permitted Capacity:

181 MILLION

Gallons Per Day
(average dry weather flow)

Customer Accounts:

616,770

Laboratory Tests Completed:

89,012

Removed from Wastewater:

99% OF AMMONIA

89% OF NITROGEN

Managing Our Assets and Building for the Future

Ensuring Regional San's infrastructure is in good working order is critical to delivering on our mission. In 2022, Regional San completed several projects to maintain our treatment plant systems.

Gas Management System Rehabilitation and Improvements

In 2017, staff determined that improvements to the treatment plant's Gas Management System (GMS) were needed to manage unexpected shutdowns and situations that could result in digester gas venting. Staff began planning to rehabilitate and improve the system, with multi-phase construction starting in 2019 and finishing in late summer 2022.

The GMS project installed upgraded automated gas burners to avoid venting digester gas, and existing system equipment was overhauled and rehabbed to ensure regulatory compliance and system redundancy.

Area Control Center 3 System Upgrade

After 40 years of use, one of the plant's original Area Control Centers (ACC) was replaced with a modern, digital-based control system. The 16-month project began in summer 2021 and was completed in fall 2022.

The objective of this pilot project was to determine the level of effort required to plan and execute a six-month system cut-over on an operating treatment process. Notably, the project planning, engineering services, design, and start-up services were all performed by plant staff—saving Regional San more than \$2 million in project costs. The new system provides operational reliability, and the project provided the experience needed to plan the replacement of the remaining ACCs.



EchoWater Project Update

Ten years after its official start in 2012, Regional San has completed 16 of 18 projects that make up the capital program known as the EchoWater Project. Now, much of the landmark project is operational, and Regional San is removing 99 percent of ammonia and 89 percent of nitrogen from the wastewater. Once complete, the new treatment process will allow Regional San to increase recycled water production suitable for irrigation and other uses.

In 2022, progress continued on the Tertiary Treatment Facilities (TTF) and Flow Equalization projects. The TTF construction activities are winding down while commissioning continues, and project completion is anticipated before the May 2023 compliance deadline. The Flow Equalization project enlarged and improved the on-site storage basins and is in the final stages of commissioning. Project completion is estimated by spring 2023. The EchoWater Project impacted many areas of the plant and final site improvements will begin soon.

Service Level Performance Regional San has seven core service levels that measure and report to our customers how well we meet our mission. In 2022, Regional San met five of our service levels.

Service Level Name	Annual Target	Annual Performance Jan – Dec 2022	Grading System (+) = Meets/Exceeds Target (-) = DID NOT MEET TARGET
Water Quality Violations	≤5	2	+
Major Sanitary Sewer Overflows	≤1	3 ¹	-
Major Wastewater Treatment Plant Spills	0	0	+
Interceptor Odor Events	≤6	11 ²	-
Wastewater Treatment Plant Odor Events	≤8	4	+
Biosolids Recycling (<i>equivalent acres/year</i>)	3,000–3,650	3,663	+
Water Recycling (<i>equivalent acres/year</i>)	200–300	344	+

¹ Regional San exceeded the service level target for annual major sanitary sewer overflows due to unusually heavy rains and an underground pipe that failed.

² Regional San exceeded the service level target for annual interceptor odor events due to unexpected equipment failures and operational problems.

Financial Overview

Regional San's revenue is generated from two main sources—monthly service charges paid by existing customers and sewer impact fees paid by new customers connecting to our system. Our monthly rate of \$37 has not increased since 2018. Sewer impact fee revenue fluctuates yearly as local economic growth ebbs and flows. In 2022, we collected \$287 million in monthly rates and \$22 million in impact fees.

Debt Management

Once the EchoWater Project is complete, Regional San will have long-term debt totaling approximately \$2.7 billion. Of this total, roughly \$200 million, or 7 percent, is variable-rate debt, most of which is hedged with swaps that convert the debt into fixed-rate debt. Another \$1 billion, or 38 percent, is traditional fixed-rate bonds. The remaining \$1.5 billion, or 55 percent, is from the EchoWater Project loan agreements with the State of California through the Clean Water State Revolving Fund. These loans have an average interest rate of 1.68 percent with a 30-year repayment term. This low-interest loan is expected to save our ratepayers more than \$500 million in interest compared to traditional bond financing.

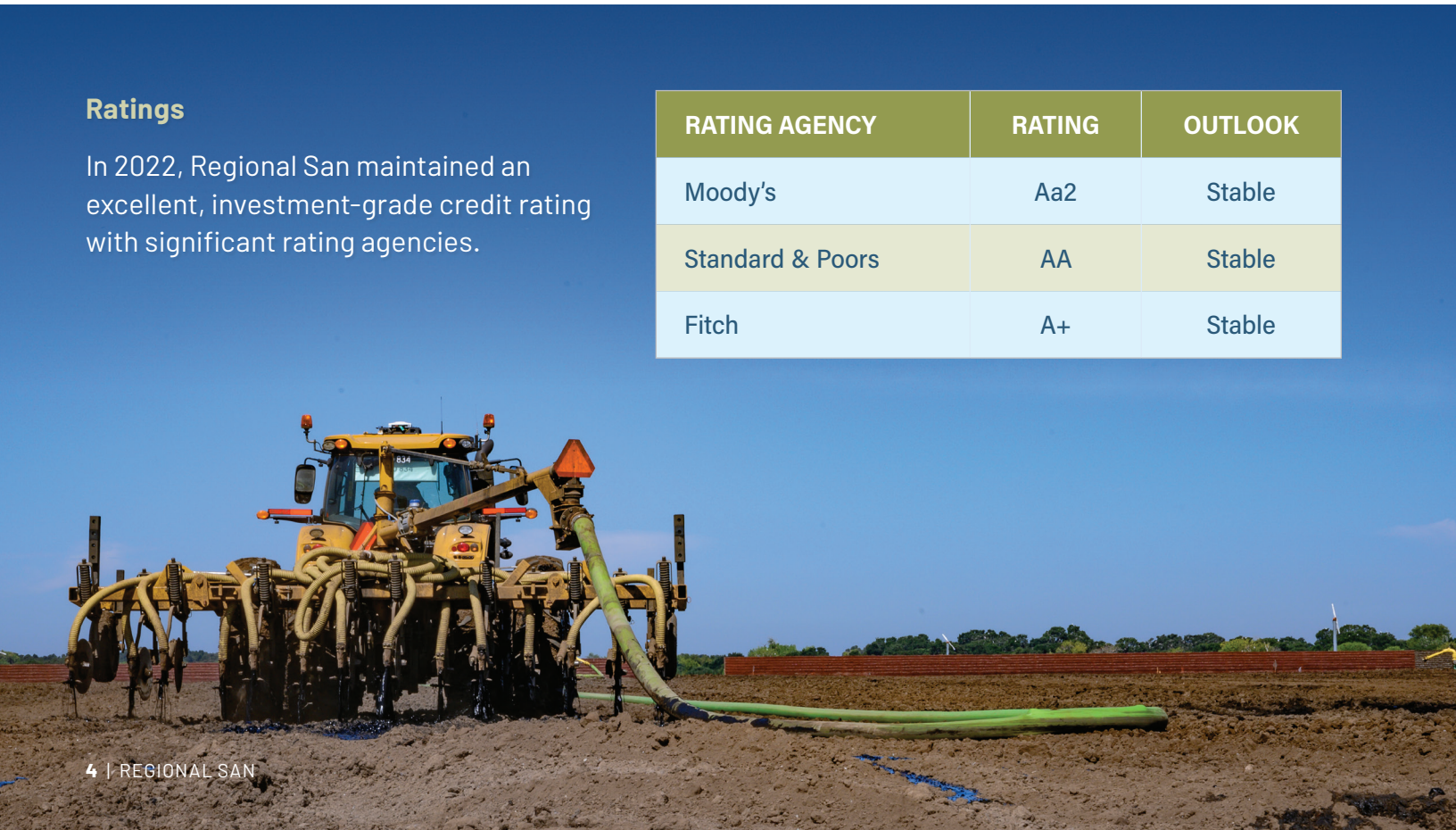
Rate Increases

A historically high inflation environment has characterized the U.S. economy since 2021, increasing Regional San's operating and capital project costs. As such, prices of treatment chemicals, skilled labor, and construction materials—such as concrete and steel needed to complete construction projects—continue to rise. These rising costs pressure monthly rates that have not increased since 2018, and staff continues to study the impacts of these unforeseen challenges on Regional San and future rates.

Ratings

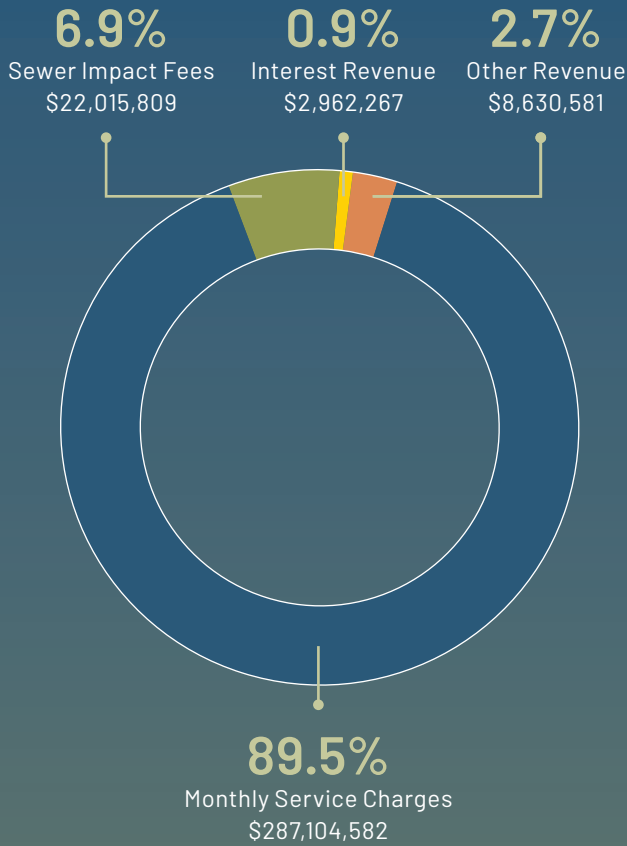
In 2022, Regional San maintained an excellent, investment-grade credit rating with significant rating agencies.

RATING AGENCY	RATING	OUTLOOK
Moody's	Aa2	Stable
Standard & Poors	AA	Stable
Fitch	A+	Stable



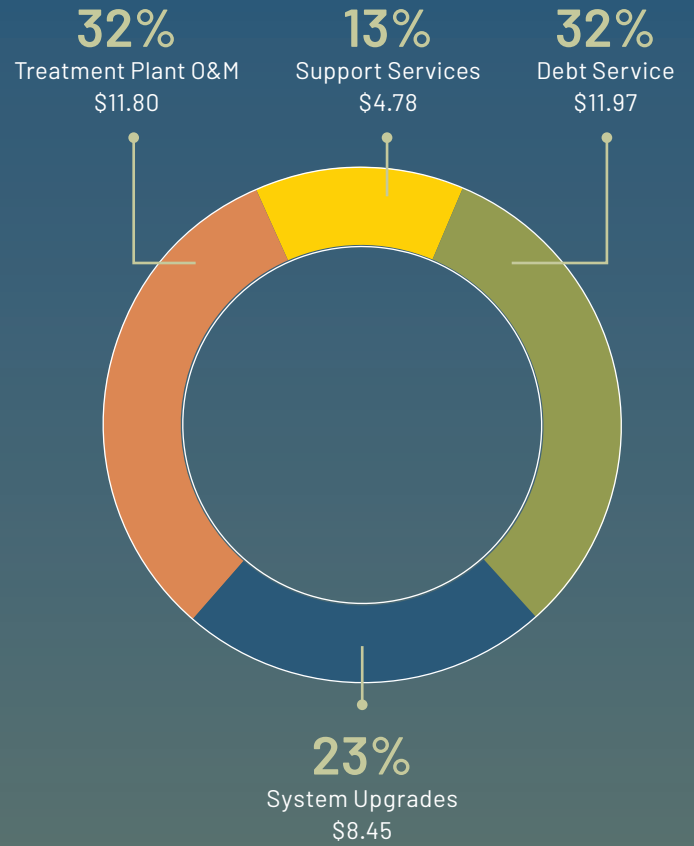
2022 REVENUE SOURCES

\$320,713,239 TOTAL REVENUE



2022 RATE DOLLARS SPENT

\$37 TOTAL MONTHLY RATE



SEWER IMPACT FEES CHART



MONTHLY SERVICE RATES



Community Connections

Regional San is proud to serve as a community partner throughout our service area. We continually promote environmental stewardship and educate the community on ways they can help improve the environment—starting at home. In 2022, Regional San reinstated many of our traditional in-person public outreach opportunities.

Nicolaus Dairy

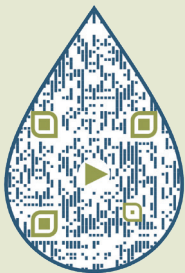
Nicolaus Dairy, located in Elk Grove, embarked on a new journey in 2022. Regional San, in partnership with Sacramento Splash (Splash), opened the barn doors to students throughout the Sacramento region. Following extensive renovations to much of the property, the Nicolaus Dairy is now home to Project AWE—the Sacramento region's latest immersive educational experience offering hands-on field trips in the areas of Agriculture, Water, Energy, and the Environment (AWE).



Project AWE preserves local history for the community while promoting sustainable practices and environmental stewardship through grade-level specific education programs focused on next-generation science standards. In 2022, about 2,300 students visited the historic Nicolaus Dairy and participated in several engaging activities, including milking Nicoletta, the model dairy cow; making cow tags; potting plants; and learning about local honey bees.

Regional San has dedicated countless hours to bringing Project AWE to life, and we are excited to share this tremendous program with the entire Sacramento region. We look forward to offering students—and everyone in the region—this unique educational opportunity.

View our Nicolaus Dairy video by scanning this QR code with your cellphone's camera.



Our elementary school outreach program, **“Go with the Flow,”** moved from virtual back to in-person assemblies in 2022. The interactive, performance-style presentation reached nearly 9,300 students at 21 elementary schools throughout Regional San's service area.

Helping Our Community – Confluence Regional Partnership Program

Regional San, in partnership with Sacramento Area Sewer District, continues to fund the Confluence Regional Partnership Program. This distinctive grant program uses non-rate, non-fee revenues to fund community programs that expand the Sacramento region's environmental, educational, and economic vitality. Program funding helps the community while advancing the two agencies' missions, visions, and values.

In 2022, Regional San funded several projects, including the Save the American River Association, which removed debris from the bottom of Steelhead Creek. Another project included sponsorship for an interactive wastewater education exhibit at the Museum of Science and Curiosity.

Applicants can request Confluence Program funding for projects and programs in several categories: environmental stewardship, regional economic development, public education, and sewer lifeline rate assistance. In 2022, the Confluence Program obligated nearly 3.5 million dollars for various efforts.

Community Outreach

Community outreach allows Regional San to connect directly with the communities we serve. Through these opportunities, we create awareness and understanding of the value and benefits of our services. We do this through public tours of the treatment plant and the Bufferlands.

Social Media Engagement

Social media continues to be a strategic tool that Regional San utilizes to stay connected with the communities we serve. Dynamic content is shared on Facebook, Twitter, and YouTube that highlights our commitment to environmental stewardship and proactively educates our customers. Additionally, Bufferlands trail-cam videos feature a unique wildlife perspective on the 2,150 acres of land surrounding our treatment plant.

We celebrated Water Professionals Appreciation Week in October on our social media channels. This annual event spotlights the critical role that water and wastewater professionals play in protecting public health and the environment. To celebrate, we honored our hard-working staff by featuring them and their diverse profession in a series of "Proud" videos that were shared on our social media platforms.

Bufferlands

This year, Bufferlands staff hosted 11 community events, including Open Trail Days, one virtual event about the changing bird population, Twilight on the Bufferlands tours, and the modified Walk on the Wildside event—known as the Wild Things Walk. The modified event included a socially distanced hike around the Bufferlands that allowed our staff to safely highlight the beauty of the Bufferlands to a limited number of visitors.

Interactive Virtual Tour

This year, Regional San revamped our virtual treatment plant tour—providing an alternate way for customers to tour our facility. The virtual tour features a new, modern design with interactive maps and a user-friendly navigational approach. The tour features a series of individual videos that provide an in-depth look into our treatment process. It also illustrates and explains our unwavering commitment to environmental stewardship—with videos showcasing our environmental programs and Bufferlands. As the shift to a virtual world has become a reality for many, virtual resources like this allow Regional San to continue advancing awareness about the critical role we play in protecting public health and the environment.



View our virtual tour video by scanning this QR code with your cellphone's camera.



Public Tour Program

After more than a two-year hiatus, Regional San reinstated our treatment plant's highly popular public tour program. These free tours give community members a behind-the-scenes look at the wastewater treatment process and the diverse workforce required to operate and maintain the plant. New this year, participants had an opportunity to visit the "heart" of the wastewater treatment plant—our massive Biological Nutrient Removal facility. This new component of our treatment process removes approximately 99 percent of ammonia and 89 percent of nitrogen from the wastewater.

In 2022, Regional San hosted nine tours between June and October, where 282 participants joined our staff on weekend and weekday tours. To help us better understand participants' experience and improve our public tour program, we surveyed attendees in several different areas, including content, logistics, and overall sentiment. Survey results indicated that 100 percent of respondents felt the tours exceeded their expectations and were a valuable opportunity for community members. As we plan for 2023, we look forward to continuing to offer this unique experience to those throughout the Sacramento region.

9

Public Tours

282

Participants

100%

of respondents felt tours exceeded their expectations

Commitment to Environmental Stewardship

Regional San continues to be a regional leader in identifying and implementing effective, cost-efficient solutions that protect the environment and our customers. We're actively demonstrating more sustainable operational practices through our recycled water programs, biogas and solar energy generation, and other green initiatives.

Harvest Water – Recycled Water for Agriculture and Habitat Lands

Regional San continues to make steady headway with Harvest Water, which will be one of the nation's largest agricultural water reuse projects. Harvest Water will provide up to 50,000 acre-feet of drought-resistant recycled water per year to irrigate agricultural, and habitat conservation lands in southern Sacramento County.

Preliminary design efforts for the recycled water delivery system achieved 60 percent design, and construction is scheduled to start in 2023 and be substantially complete by the end of 2025. Meanwhile, outreach continued with landowners, and by year's end, Letters of Intent were secured for irrigated lands, which fulfills the program's demand goal for summertime irrigation.

To date, Regional San has been awarded approximately \$300 million in grant funding from the California Water Commission, and we are working to obtain additional state and federal funding. Additional funding is needed to help close the gap between early planning estimates and updated design and construction cost estimates.

BioGeneration Facility

The planned BioGeneration Facility will utilize biogas (i.e. methane), a byproduct of the solids treatment process, to produce renewable electricity and heat for the plant. The facility is anticipated to initially produce 7-10 megawatts of renewable power—offsetting Regional San's utility power purchases.

Procurement was revised in 2022 at the direction of the Board to include alternative technology options. When built, the BioGeneration Facility will reduce emissions of criteria pollutants and provide the treatment plant with biogenic heat and power source with reduced greenhouse gas emissions. This facility will also include an optional hydrogen-producing technology for regional market use of hydrogen in the future. Project completion is expected in early 2026.

AWARDS, PUBLICATIONS, & RECOGNITIONS

Regional San is proud of our continued commitment to environmental protection and public education. As a result, our staff's efforts are often recognized—individually and collectively—through various industry and professional honors.

This year, we received the following notable awards:

2022 Grand Prize-Design Award from the American Academy of Environmental Engineers and Scientists for the Biological Nutrient Removal Project

2022 50th Anniversary of the Clean Water Act Award from the American Academy of Environmental Engineers and Scientists for the Biological Nutrient Removal Project

2022 Gold Award from the American Advertising Federation for the Biological Nutrient Removal Project videotorial

2022 Recognition from the State Water Board and the California Water Quality Monitoring Council for Regional San's ongoing role in sewage surveillance during the COVID-19 pandemic

Living Our Values

Scan the QR code with your phone's camera to hear why our staff are proud.



A Focus on Proficiency – Why We're Proud

Proficiency is not only one of Regional San's organizational values—it's a fundamental factor in how we show up for one another and the communities we serve. In the course of Regional San's day-to-day work, the critical role that wastewater treatment plays in a healthy, thriving community can often be overlooked or taken for granted. Take it from us—we know our work isn't glamorous, but it's essential—and we are incredibly proud of our hard-working and dedicated staff whose work truly makes a difference.

Our wastewater system is a vital infrastructure sector crucial to our nation's health, safety, security, and economic stability. The facilities we operate and manage with great expertise save people's lives by preventing dangerous waterborne illnesses that claim countless victims worldwide in places where modern water and wastewater infrastructure is lacking. Our efforts are also crucial to protecting natural resources and the environment in the greater Sacramento region.

With all this in mind, **General Manager Christoph Dobson**, along with **Senior Training and Development**

Specialist David Stoffel and **Training and Development Specialist Matt Yuen**, spearheaded an effort in 2022 to produce compelling videos featuring first-hand testimony from our diverse professional staff, answering the simple but essential question: "What about your job makes you proud?"

Employees were challenged to come up with specific things about their work that made them proud, and the stories they told did not disappoint. Throughout these videos, you hear our wastewater professionals speak powerfully about their roles in the essential public service we provide. From team collaboration, and serving our community to delivering on our mission in an efficient and cost-effective way, these testimonies are just a few examples of how we work every day to sustain our core value of Proficiency.

As we move into a promising wastewater future with a fully functioning EchoWater Project dramatically improving our effluent's water quality, we can keep our heads high when we talk about our work to family, friends, and colleagues. We have the great responsibility and privilege to protect public health and the environment of our entire community.



2022 Utility of the Future recognition for recovering resources from wastewater, engaging communities, forming unique partnerships, and building an internal culture of innovation

2022 Certificate of Achievement for Excellence in Financial Reporting for the 25th consecutive year from the Government Finance Officers Association for the fiscal year ended June 2021

2021 Outstanding Public Works Project from the Sacramento Section of the American Society of Civil Engineers for the EchoWater Project

2022 Influence Award from the California Capital Chapter of the Public Relations Society of America for the Biological Nutrient Removal Project videotorial

Merit Award from the American Council of Engineering Companies of California 2022 Engineering Excellence for Bradshaw Equalization Structure Pipeline Project

Merit Award from the American Council of Engineering Companies of California 2022 Engineering Excellence for Nitrifying Sidestream Treatment Project

California Water Environment Association, Sacramento Area Section, named treatment plant operations and maintenance manager **Michael Melady, 2022-2023 Supervisor of the Year**



2022 Board of Directors

COUNTY OF SACRAMENTO

Phil Serna
Patrick Kennedy
Rich Desmond
Sue Frost
Don Nottoli

COUNTY OF YOLO

Oscar Villegas

CITY OF CITRUS HEIGHTS

Jeannie Bruins

CITY OF ELK GROVE

Bobbie Singh-Allen
Pat Hume

CITY OF FOLSOM

Kerri Howell

CITY OF RANCHO CORDOVA

David Sander

CITY OF SACRAMENTO

Katie Valenzuela
Jeff Harris
Sean Loloee
Mai Vang
Jay Schenirer

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Quirina Orozco

Executive Management Team

Christoph Dobson

General Manager

Glenn Bielefelt

Director of Operations

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Director of Policy & Planning

Matthew Doyle

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Nicole Coleman

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Tepa Banda

Director of Finance

