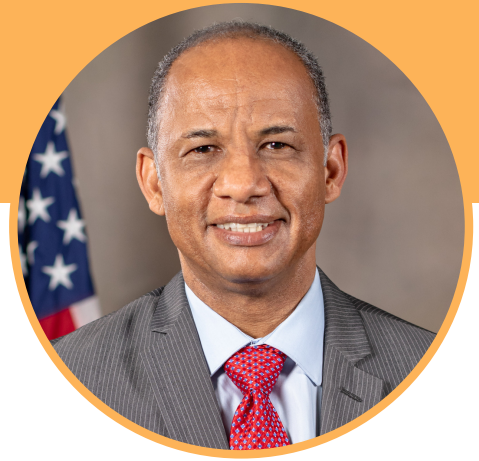




STRATEGIC PLAN ANNUAL REPORT

FY 2020-21

MESSAGE FROM THE GENERAL MANAGER



Central San was founded in 1946 to provide wastewater treatment service to a community that was growing during the post World War II boom. When we were created, Central San had a service area population of about 15,000 people; 16.5 miles of pre-existing sewer pipe, and no treatment plant.

Today, seventy-five years later, we collect and clean more than 13 billion gallons of wastewater every year from nearly 500,000 people and more than 3,000 businesses, through more than 1,500 miles of pipes that we maintain. We still provide an essential service to our community - all while continuing to evolve to meet changing needs. Just as it was when we were created in 1946, we are currently in the midst of another watershed moment in our society. From the COVID-19 pandemic, to climate change, to social justice, the world is coming to grips with challenges and opportunities facing humankind and the environment. Through it all, we remain flexible with the way we operate to ensure the safety of our employees, the continuation of our service, and prioritizing the needs of all the customers we serve to play a positive role in our community.

Our front-line employees are onsite every day, proud to continue our storied history of protecting public health and the environment. We are grateful for their dedication and ingenuity, going above and beyond to carry out their duties with safety and service in mind. We will continue our prudent financial practices, pursuit of new technologies and innovations to make the best use of our financial resources, and taking on significant capital projects to ensure reliability, resiliency, and readiness for the future.

In addition to our employees, I would like to thank the Board for providing the vision, resources, and support necessary to achieve our goals and respond to challenges. We will carefully continue our operations and constantly reevaluate our plans as needed to swiftly adapt to changes. We remain committed to continuing the tradition of customer service, responsible rates, and reliability at Central San into the next 75 years and beyond.


Roger S. Bailey
GENERAL MANAGER

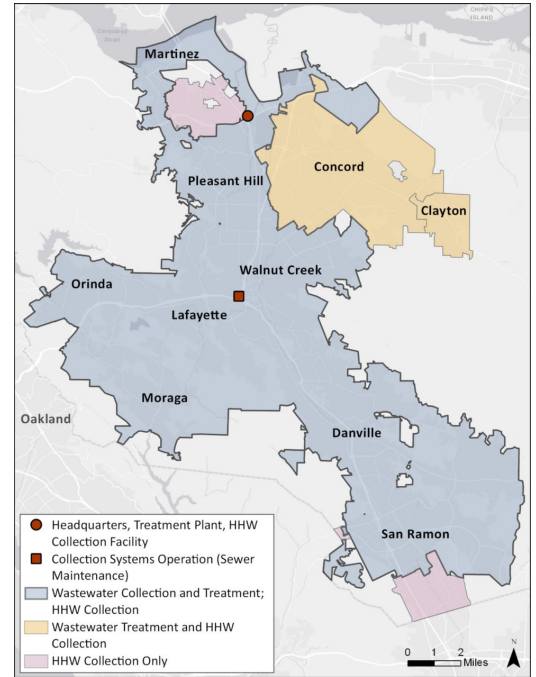
MAJOR STRATEGIC ACCOMPLISHMENTS



- Continued to provide essential wastewater treatment and collection services **without interruption** during the pandemic, while maintaining a **safe and healthful workplace**.
- Developed **digital learning Pipe Protectors program** to present a hands-on, science-based curriculum via online learning formats, and served **21,673 students** in education programs.
- Implemented a **Customer Relief Program** and a **Non-Residential Capacity Fee Installment Payment Program** for customers to address the impacts on the economy from COVID-19.
- Received the National Association of Clean Water Agencies (NACWA) Peak Performance Platinum Award, marking **23 consecutive years of 100% compliance** with Central San's National Pollutant Discharge Elimination System (NPDES) Permit — the longest successful streak of any wastewater agency in California and among the top 20 in the nation.
- Responded to **23** sanitary sewer overflows.
- Paid off the outstanding pension unfunded actuarially accrued liability (UAAL) of **\$70.8 million**, which is anticipated to save about **\$15 million** in interest costs through 2029.
- Replaced **8.7 miles** of aging neighborhood sewer pipes.
- Oversaw **over 47,000 visits** to the Household Hazardous Waste Collection Facility (HHWCF) and Residential Recycled Water Fill Station.
- Collected **2,715,000 pounds** of household hazardous waste (HHW) and **5,600** pounds of pharmaceuticals.
- Achieved **20 consecutive years** of receiving the **Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting** and received the **GFOA Distinguished Budget Presentation Award** for the **third consecutive year** since first applying for the award three years ago.
- Launched the **Employee Recognition Events Program** to allow managers to acknowledge extraordinary achievements.
- Developed an **Innovation Recognition Program**, which included the first annual **Innovations Fair**, showcasing and celebrating employee ingenuity.
- Received **Best Asset Management Program 2020** award from *Uptime Magazine*.
- Began work on **Filter Plant and Clearwell Improvements** to ensure the continued reliability of the recycled water system and expand capacity.
- Launched a pilot to **assess the condition of large-diameter pipes** with new technology.
- Completed critical inspections and improvements to the **outfall pipe** which carries clean, treated water to Suisun Bay.
- Completed upgrades to the **Emergency Sludge Loadout Facility**, a critical step in the planned improvements to the Solids Handling Facility.
- Participated in and launched **wastewater surveillance efforts** with Stanford University, University of California at Berkeley, Contra Costa Health Services, and United States Department of Human and Health Services.

ABOUT CENTRAL SAN

Central San is a special district which was established in 1946. It is headquartered in Martinez, California, and is proud to serve its communities (service area map pictured) with wastewater collection and treatment, household hazardous waste collection, and recycled water distribution services. Central San has 292 budgeted full-time employees led by a General Manager, 3 Department Directors, and 13 Division Managers.



MISSION, VISION, VALUES, AND GOALS

MISSION

To protect public health and the environment

VISION

To be a high-performance organization that provides exceptional customer service and regulatory compliance at responsible rates

VALUES

PEOPLE

- Value customers and employees
- Respect each other
- Work as a team
- Work effectively and efficiently
- Celebrate our successes and learn from our challenges

PRINCIPLES

- Be truthful and honest
- Be fair, kind, and friendly
- Take ownership and responsibility

COMMUNITY

- Value water sector partners
- Foster excellent community relationships
- Be open, transparent, and accessible
- Understand service level expectations
- Build partnerships

LEADERSHIP AND COMMITMENT

- Promote a passionate and empowered workforce
- Encourage continuous growth and development
- Inspire dedication and top-quality results
- Provide a safe and healthful environment



GOALS

are the foundation of the Strategic Plan. They are set by the Board to identify Central San's priorities.



STRATEGIES

outline Central San's approach to achieve its Goals, overcome its challenges, accomplish its mission, and meet the community's needs in the best possible ways.



INITIATIVES

describe the actions staff will take to enact the Strategies.



KEY SUCCESS MEASURES

provide examples of the types of tasks that further the Initiatives.

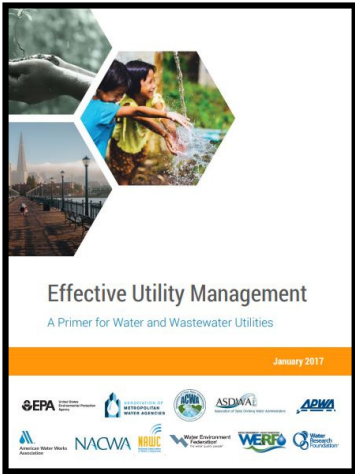


KEY METRICS

set targets, track progress, and evaluate performance.

STRATEGIC PLANNING

Central San develops its Strategic Plans on a two-year cycle, while tracking progress quarterly and producing performance reports annually. The Strategic Plans establish policy direction, outline core commitments, focus initiatives, and track performance with key performance metrics. FY 2020-21 represents the first half of the FYs 2020-22 Strategic Plan.



EFFECTIVE UTILITY MANAGEMENT

Since the development of the FYs 2016-18 Strategic Plan, staff has used the Effective Utility Management (EUM) model as a tool to identify practices and procedures to improve operations and move toward continued sustainability. The EUM framework was originally developed in 2007 by the American Water Works Association, U.S. Environmental Protection Agency, and nine other association partners representing the U.S. water and wastewater sector. It consists of 10 attributes that provide succinct focus areas for effectively managed utilities and what they should strive to achieve.



CUSTOMER AND COMMUNITY

Provide Exceptional Customer Service and
Maintain an Excellent Reputation in the Community

Strategic Accomplishments

Deliver High-Quality Customer Service

- ◆ Provided wastewater treatment service with **no interruptions** during the COVID-19 pandemic and Pacific Gas & Electric (PG&E) Public Safety Power Shutoffs.
- ◆ Implemented a **Customer Relief Program** for sewer service and recycled water charges for all customers, to address the impacts on the economy from COVID-19.
- ◆ Created a **Septic to Sewer Financing Program** as a two-year pilot to encourage single-family houses to connect to nearby sewer mains.
- ◆ Completed **urgent sewer replacements** such as in El Toyonal in Orinda, to lessen impacts to the public and nearby residents.
- ◆ Processed **7,768** Permit Counter applications, representing a 21% increase compared to FY 2019-20.
- ◆ Responded to **325** collection system service requests.
- ◆ Received and cleared over **30,915** USA locating requests on time.
- ◆ Oversaw over **47,000** visits to the HHWCF and Residential Recycled Water Fill Station by residents, small businesses, reuse customers, retail partners, and fill station users.
- ◆ Collected **2,715,000** pounds of HHW.
- ◆ Collected **5,600** pounds of pharmaceuticals.
- ◆ Responded to **68** Public Records Act requests.
- ◆ Held **virtual Board meetings** to help facilitate public participation and open government during the pandemic.
- ◆ Provided **informational letters and online presentations** in place of in-person workshops for the South Orinda Sewer Renovations Project, Phase 8, and Walnut Creek Sewer Renovations Project, Phase 15.
- ◆ Produced **new informational videos**: “HHWCF Behind the Scenes” and “Conversations with the Board of Directors.”
- ◆ Aired **504** public service announcement commercial spots for two weeks during Thanksgiving, urging customers to recycle their cooking oil at the HHWCF. The messages reached **62.6%** of households in the service area.
- ◆ Published a **Standard Specifications pocket guide** in both English and Spanish, for Development Inspectors to distribute to contractors.
- ◆ Created a **Non-Residential Capacity Fee Installment Payment Program** to provide broader financing for businesses struggling in the current economic climate.
- ◆ Developed a **digital Pipe Protectors program** to serve students with a hands-on, science-based curriculum that was presented via online learning formats.
- ◆ Facilitated voting through a secure, public **ballot drop box** installed on campus.
- ◆ Began flying a **drone** for public outreach and internal support, to fill the need to show critical infrastructure upgrades as a demonstration to customers of how past and future rates are used responsibly. The drone may also be used for crisis response, to assess damage impacts, and to perform progress mapping for projects.



Maintain a Positive Reputation

- ◆ Hosted **33** attendees, including alumni and new participants, at a Central San Academy session which was held virtually over two nights. Currently, **79** applications have been received for the next session.
- ◆ Increased social media followers by approximately **40%** on YouTube, Facebook, Twitter, and Instagram.



Maintain a Positive Reputation (continued)

- ◆ Designed a new **maintenance access hole lid** to increase recognizability in the service area.
- ◆ **Advocated** at the state and national levels on issues affecting Central San.
- ◆ Board Members continued to **present at council meetings** and **attend interagency events**.
- ◆ Continued to **meet** with city managers and other stakeholders to discuss potential construction impacts to the community.
- ◆ Continued to take roles in various **professional organizations** to present at conferences, network with peers, and increase visibility.
- ◆ Phil Leiber, Director of Finance & Administration, continued to serve on the County's **Treasury Oversight Committee**.
- ◆ Roger S. Bailey, General Manager, served on the **boards** of National Association of Clean Water Agencies (NACWA), California Association of Sanitation Agencies (CASA), WaterReuse, California African American Water Education Foundation, and John Muir Health to strengthen ties to the water sector and the community Central San serves.
- ◆ Staff was invited by American Council of Engineering Companies Educational Program to participate on a **panel of experts** regarding Sustainability of Infrastructure Projects using Envision.
- ◆ Provided step-by-step **directions** to CASA on creating and gathering data for a Wipes Clog Pipes map for agencies with and without geographic-information-system enabled maintenance records, to assist CASA’s outreach coalition efforts.



Sharing Tips with Peers

Despite the challenges posed by the pandemic, Central San continues to actively engage with the water/wastewater community and share its expertise. Maintenance Planner Mary Reynolds presented a **webinar** entitled, “Our Journey from Paper to Digital ... and the Lessons Learned” to members of BAYWORK, a regional workforce development consortium. She was inspired to create the presentation after attending a BAYWORK event and hearing about other utilities making the transition to digital.



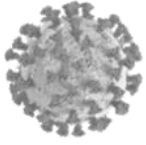
Supporting Schools from a Social Distance

Central San’s education programs are designed to bring the work of wastewater treatment directly to its youngest customers. This classroom visitation model was tested when local schools moved to distance learning. To continue supporting schools under these unprecedented circumstances required a whole new level of creativity and resourcefulness. To meet the challenge, staff created a variety of innovative learning opportunities, from **virtual tours** to **hands-on science activities using common household supplies**. By designing engaging science-based activities around materials almost anyone would have on hand, staff ensured the lessons would be accessible to students and families across the service area. Central San’s education partners also turned to outside-the-box solutions to support remote learning. The Marine Science Institute worked with Central San and the Contra Costa Water District (CCWD) to create a **virtual Delta Discovery Voyage** to help thousands of students understand the source of their drinking water and the destination of their final effluent – all from their home computers. Doug Nolan adapted his **Flow of Water education program** (a joint program of Central San and CCWD) online and was able to serve over 10,000 students with his engaging educational program from a distance. All told, Central San’s education programs were able to adapt and respond to the needs of virtual classrooms, and in the process were able to serve **21,673** students.



CUSTOMER AND COMMUNITY

Provide Exceptional Customer Service and
Maintain an Excellent Reputation in the Community
Strategic Accomplishments



COVID-19 Response

- ◆ Ensured **essential services** remained intact while following state and local health orders to provide a **safe and healthful working environment**.
- ◆ Swiftly employed **alternative service delivery approaches** to remain flexible and adaptable in preserving Central San's customer service standard and keeping employees and customers safe.
 - ◇ Maintained daily **Permit Counter operations** via phone and e-mail accessibility and convenient online payment options.
 - ◇ Held **15 virtual treatment plant tour Q&As**.
 - ◇ Restricted **sewer construction projects** from performing activities in backyard easements.



AWARDS

Central San is proud and grateful to be recognized in industry and professional organizations for the work performed by its staff. Each award represents a commitment to continuous improvement, distinction in leadership, and dedication toward bringing value to the customers and community that Central San serves.

- ◆ **Best Asset Management Program 2020** award from *Uptime Magazine*.
- ◆ **Municipal Information Systems Association of California (MISAC) Award for Excellence in Information Technology (IT) Practices** for the 4th consecutive year.
- ◆ **MISAC President's Award** for IT Manager John Huie.
- ◆ **Achievement of Excellence in Procurement Award** for the 10th consecutive year, recognizing organizational excellence in public purchasing.
- ◆ **NACWA 2019 Peak Performance Award – Platinum 23**, marking the 23rd consecutive year of 100% compliance with Central San's NPDES Permit for wastewater discharge.
- ◆ **GFOA Certificate of Achievement for Excellence in Financial Reporting** for the 20th consecutive year and the **Distinguished Budget Presentation Award** for the 3rd consecutive year.
- ◆ **California Water Environment Association Statewide and San Francisco Bay Section 2020 Awards for Community Engagement and Outreach Project of the Year** for the virtual treatment plant tour.
- ◆ **NACWA Platinum Excellence in Management Recognition Award** for effective utility management.
- ◆ **2020 California Association of Public Information Officials (CAPIO) Excellence in Public Information & Communications (EPIC) Awards:**
 - ◇ **Large Population - Newsletter or Magazine** for the *Pipeline* Customer Newsletter
 - ◇ **Award of Distinction – Large Population - Photography** for Central San's Heavy Lifters Photo
 - ◇ **Award of Distinction – Social Media Campaign** for Central San's "Wipes Clog Pipes" Campaign

Objectives for FY 2021-22

- ◆ Continue to **expand outreach** with residential and commercial customers, legislators, elected officials, and sister agencies to grow and maintain relationships and advocate for the interests of customers.
- ◆ Renew California Special Districts Leadership Foundation **Transparency Certificate of Excellence**.
- ◆ Invest in programs to inform the public of the need to fund necessary infrastructure improvements to maintain Central San's level of service and protect public health and the environment. These programs include **student education programs, tours, and Central San Academy**.



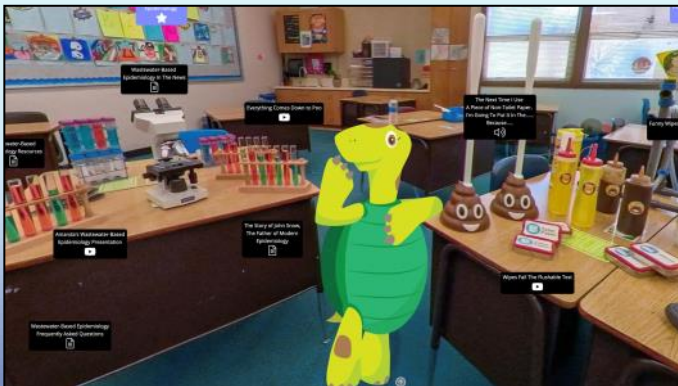
Celebrating 75 Years of Service to the Community

Central San has been protecting public health and the environment since 1946. To commemorate 75 years of service to the community, Central San is celebrating all year long with an **online tour experience** at centralsan.org/75th.

Developed in-house, the unique website features an interactive 360-degree **tour** of Central San’s treatment plant and facilities; behind-the-scenes **videos, photo galleries, and interviews; historical facts; drone flyovers;** and a **learning hub** with hands-on science activities for kids. Customers can also find **environmental information** on how to protect their pipes, safely dispose of household hazardous waste, and get free recycled water for their gardens. The site even includes **hidden prizes** and other surprises.



Central San is sharing the Experience via its website, social media, customer newsletter, and other outreach to the community.



Central San began preparing for its anniversary celebration amid the pandemic. The 75th Anniversary Experience provides a **creative solution** in lieu of a large public event. It allows customers to engage with and learn more about Central San throughout the anniversary year **and beyond**, all at their convenience.



CUSTOMER AND COMMUNITY

Provide Exceptional Customer Service and
 Maintain an Excellent Reputation in the Community
Performance in Key Metrics

Metric	Target	Performance
Average onsite response time for collection system emergency calls, during working hours	≤30 minutes	34.4 minutes*
Average onsite response time for collection system emergency calls, after hours	≤40 minutes	33.995 minutes*
Average customer service rating for emergency calls	≥3.8 out of 4.0	3.73 out of 4.0
Average customer satisfaction rating on construction projects	≥95%	96.5%
Average customer satisfaction rating on permit counter interactions	≥95%	94.8%**
Students served by education programs	≥6,000	21,673
Participants in Plant/HHWCF tours and District presentations	≥500	783
Participants in Central San Academy	≥35	33
Awards or recognitions achieved	10	13

*Performance may have been affected by modified working schedules to adhere to social distancing mandates due to COVID-19.

** Feedback focused on turn-around time of plan review and suggestions of adding staff. The reduced turn-around time relates to an overall increase in Development workload and a temporary situation where full-time staff needed to train two new Engineering Assistants.

Legend (applies to all Key Metrics tables in the report)

Target met	Performance met or exceeded the target
Work in progress/ Stretch goal	Performance fell short of the target, which is a stretch goal because: <ul style="list-style-type: none"> • Current and past performance is not within reach of the target, and/or • Performance is affected by circumstances beyond Central San's control
Work in progress	Performance fell short, but within reach, of the target



Achieve 100% Compliance in All Regulations

- ◆ Achieved **23rd** year of continuous 100% compliance with all NPDES permit requirements governing wastewater discharge and marking the **longest successful streak of any wastewater agency in California** and among the **top 20** in the nation.
- ◆ Responded to **23** sanitary sewer overflows.
- ◆ Cleaned **745.59** miles of sewers.
- ◆ Completed **16,695** work orders on schedule **99.4%** of the time.
- ◆ Converted cleaning schedules **from routine to scheduled** maintenance to ensure each line has a scheduled cleaning date.
- ◆ Performed **19.3%** of all cleaning work on “hotspots.”
- ◆ Closed circuit televised **120** miles of sewers.
- ◆ Continued the ongoing effort of **reviewing frequency cleaning schedules for optimization**, focusing on 6-month and 1-, 2-, 3-, 5-, and 7-year schedules.
- ◆ Completed District-wide **Spill Prevention, Control, and Countermeasure Program** revamp efforts.
- ◆ Renewed Bay Area Air Quality Management District **Permit to Operate**.
- ◆ Complied with the State Investigative Order for Per- and polyfluoroalkyl substances (PFAS) by participating in the **Region 2PFAS Study** coordinated through **Bay Area Clean Water Agencies (BACWA)** and managed by San Francisco Estuary Institute.
- ◆ Dewatered, inspected, tested, and repaired the **outfall pipe** —the 6-foot diameter, 3.5-mile pipe that carries clean, treated water from the plant to Suisun Bay — while **meeting all monitoring requirements**.
- ◆ Bid the **Solids Handling Facility Improvements (Solids) Project**, which will address equipment needs to reliably comply with current air regulations.
- ◆ Maintained 2020 anthropogenic **greenhouse gas (GHG) emissions** below the Cap and Trade inclusion threshold.
- ◆ Conducted Board Member training on **sexual harassment prevention**.
- ◆ Coordinated biennial review of **27** existing Board policies and amendments to **12** Board policies.

Anticipate and Prepare for Potential Regulatory Changes

- ◆ Staff served in leadership roles as **co-chairs** for pre-treatment and permits committees.
- ◆ Environmental & Regulatory Compliance Division Manager Lori Schectel served as **liaison to CASA** State Legislative Committee and Water Regulatory Workgroup, and continued to serve on the **Executive Board of BACWA**.
- ◆ Communications and Government Relations Manager Emily Barnett was reappointed to the **California Special Districts Association (CSDA) legislative committee**, which helps develop CSDA’s legislative agenda and reviews, directs, and assists with legislative and public policy issues affecting special districts.
- ◆ Supported **proper wipes labeling** by
 - ◇ Growing **public support** for Assembly Bill (AB) 1672 through the *Pipeline* newsletter and social media.
 - ◇ Supporting the reintroduction of **AB 1672** for the 2021-22 Legislative Session, along with other Pollution Prevention bills.
 - ◇ Leading **Senate Bill 594 amendments** to address the census data delay.
 - ◇ Being a **major supporter** of the second attempt at passing a federal bill.
- ◆ Presented ongoing state and federal **legislation updates** at Board meetings.
- ◆ Incorporated potential impacts of regulatory changes into **long-range infrastructure and financing plans**, such as including the Solids Project State Revolving Fund and the Financial Plan.



ENVIRONMENTAL STEWARDSHIP

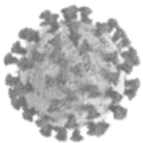
Meet Regulatory Requirements and Promote Sustainability
Strategic Accomplishments

Support Regional Development of Local Water Supply

- ◆ Distributed approximately **235.3 million gallons** of recycled water to Zone 1 customers.
- ◆ Distributed approximately **4.7 million gallons** of recycled water through the Commercial Truck Fill Program.
- ◆ Distributed approximately **2.5 million gallons** of recycled water through the Residential Fill Station.
- ◆ Constructed new steel storage tanks and replaced a failed transformer as part of the **Filter Plant and Clearwell Renovations Project—Phase 1**.
- ◆ Initiated design of a **tertiary membrane filter plant pilot** to effectively produce Title 22 recycled water.
- ◆ Continued efforts toward the proposed **Refinery Recycled Water Exchange** with CCWD and Valley Water.
 - ◇ Board liaisons agreed to extend the **Memorandum of Understanding (MOU)** to June 30, 2022.
 - ◇ Central San and Valley Water agreed to extend the staff-level **Cost-Sharing Agreement**, to jointly fund work by Raftelis Financial Consultants, to June 30, 2022.
- ◆ Accepted facilities and initiated a 3-year term for a **Temporary Wastewater Diversion** to support a collaboration request from Dublin San Ramon Services District (DSRSD) – East Bay Municipal Utility District Recycled Water Authority (DERWA), a recycled water joint powers authority, to divert raw wastewater from Central San’s San Ramon Pumping Station to DSRSD for the production of recycled water to meet DERWA’s peak summer irrigation demand. The first raw wastewater diversion was started in June.
- ◆ Continued to support the City of Concord’s **Community Reuse** Project. Central San will resume efforts once a new Master Developer is selected by the City.
- ◆ Received interest from regarding the development of a potential new **satellite water recycling facility (SWRF) to serve the Rossmoor community** in Walnut Creek. East Bay Municipal Utility District has taken the lead on developing an MOU.
- ◆ Presented an update on the **Diablo Country Club SWRF Demonstration Project**.

Reduce Reliance on Non-Renewable Energy

- ◆ Contra Costa County Fire Protection District review and 30% design were completed for the project to construct a **new 1.75-megawatt solar array** near the treatment plant.
- ◆ Began using alternative **renewable diesel fuel** on the fleet at Collection System Operations (CSO), which will reduce GHG emissions and increase reliability, with less downtime due to maintenance.
- ◆ Tracked energy on a **monthly basis**.
- ◆ Began work with PG&E and their **RAPIDS Wastewater Treatment Optimization Program**.
- ◆ **Replaced lights** in the parking lots, street lights, and the Electric Shop’s emergency lights.
- ◆ Bid the **Mechanical Shop HVAC system renovation** project.



COVID-19 Response

- ◆ Communicated and complied with local county and state **health orders and regulations**.
- ◆ Strategically **prioritized pipeline cleaning schedules** to ensure service and combat overflows despite reduced staffing.

Objectives for FY 2021-22

- ◆ Complete the construction of the **Filter Plant and Clearwell Improvements - Phase 1A Project**, which will include replacing critical electrical gear and increase reliability at recycled water storage facilities.
- ◆ Continue **working with project partners** on recycled water expansion projects.
- ◆ Bring to the Board a draft policy on how Central San will **prioritize recycled water projects**.



Metric	Target	Performance
National Pollutant Discharge Elimination System (NPDES) compliance	Zero (0) violations	Zero (0) violations
Title V compliance	Zero (0) violations	1 notice of violation (NOV)*
Recycled Water Title 22 compliance	Zero (0) violations	Zero violations**
Anthropogenic GHG emissions	<25,000 metric tons (MT) CO ₂ e	23,771 MT CO ₂ e in calendar year 2020. On track to meet 2021 target.
Sanitary sewer overflows	<2.0 spills per 100 miles of pipeline	1.43 spills per 100 miles of pipeline
Spills to public water	≤3	2
Percent of spills <500 gallons	≥95%	87.0%
Pipeline cleaning schedules completed on time	≥98%	99.36%***
Pipeline cleaning quality assurance / quality control (QA/QC)	On ≥4% of pipelines cleaned on an annual basis	3.68%***
Pipeline cleaning QA/QC passing rate	≥98%	96.03%***
Annual Environmental Compliance Inspections and permitting completed on time	100%	100%***
HHW management compliance	Zero (0) violations	Zero (0) violations
Gallons of recycled water distributed to external customers	≥240 million gallons	245 million gallons
kWh of electricity produced by co-generation using natural gas	≥18 million kWh (reported as a rolling average)	22.7 million kWh
kWh of solar power produced at Collection System Operations and HHW Facility	≥220,000 kWh (reported as a rolling average)	272,000 kWh
kWh of solar power produced by a new solar array near the treatment plant campus	≥2.5 million kWh (reported as a rolling average)	Project still on track to start in Q4 of FY 2021-22

*NOV from Bay Area Air Quality Management District for emergency bypass damper opening due to PG&E power outage.

**Notified Regional Water Quality Control Board and Division of Drinking Water of two, one-hour recycled water contact time excursions in calendar year 2020 which were identified in 2021. No comments or NOV have been received.

***Performance may have been affected by modified working schedules to adhere to social distancing mandates due to COVID-19.



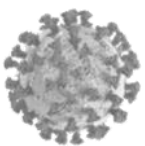
Maintain Financial Stability and Sustainability

- ◆ Completed a **\$58 million bond offering** that will be directly used for funding the CIP for the current and next FY, freeing up the funding for paying down the UAAL.
- ◆ Paid off the outstanding pension UAAL of **\$70.8 million**, anticipated to save about \$15 million in interest costs through 2029.
- ◆ **Fully funded** the Other Post-Employment Benefits actuarially determined contribution with an estimated **\$1.95 million** going towards drawing down the UAAL.
- ◆ **Fully funded** the actuarially determined contribution requirements determined by the Contra Costa County Employees' Retirement Association pension administrator and paid an **additional \$1.25 million** toward the Section 115 secondary pension trust.
- ◆ Upsized the State Revolving Fund (SRF) application to **\$173.1 million** for the Solids Project. So far, 7 out of 19 signatures/approvals have been given on the agreement.
- ◆ Completed a **grant application** for the Walnut Creek/Grayson Creek Levee Project through the Federal Emergency Management Agency (FEMA) Building Resilient Infrastructures and Communities program.
- ◆ Contributed an additional **\$2.15 million in budgetary savings** to the newly established Rate Stabilization Fund reserve account in the Running Expense fund, to help hedge against the adverse impacts of cost pressure volatility on Sewer Service Charge (SSC) stability.
- ◆ Reported to the Board on the **Enterprise Risk Management program and risk inventory**.
- ◆ Conducted **annual reviews** of the following:
 - ◇ Current rates and fees, for reasonableness and consistency.
 - ◇ Capacity fees, to ensure appropriate fees are assessed and collected.
 - ◇ Businesses, to ensure consistent use with existing permits and payment of capacity fees.
- ◆ Managed claims aggressively to reduce costs and facilitate resolution, resulting in an average cost per overflow claim of **\$6,941**.
- ◆ Updated **insurance requirements** for goods and services contracts.



Ensure Integrity and Transparency in Financial Management

- ◆ Received the Government Finance Officers Association (GFOA) **Certificate of Achievement for Excellence in Financial Reporting** award for the 20th consecutive year (pictured).
- ◆ Received the GFOA **Distinguished Budget Presentation** award for the 3rd consecutive year following Central San's first-ever submission three years ago.
- ◆ Hired a full-time, dedicated **Internal Auditor**.
- ◆ Completed a **payroll design audit** and begun an **Information Technology (IT) security audit**.
- ◆ Received an **unmodified ("clean") external audit opinion** and **zero reported material weaknesses or significant deficiencies** in internal controls as part of the annual financial audit.
- ◆ Rolled out a completely restructured **chart of accounts** based on best practice guidance issued by the GFOA, implementing a more logical parent-child segment structure allowing for greatly improved reporting functionalities.
- ◆ Issued **accurate and timely interim monthly financial reports**, allowing for diligent monitoring of the budget and accountability.
- ◆ Developed FY 2021-22 budget using the new **Enterprise Performance Management Budget and Planning software**, used for both staff planning calculations as well as paperless gathering of budget information from Division Managers and their delegate budgeteers.
- ◆ Worked on the annual **Benchmarking Study** based on the American Water Works Association (AWWA) Utility Benchmarking framework.
 - ◇ Responded to benchmarking **surveys** from AWWA and Global Water Intelligence.
 - ◇ Conducted a statewide survey soliciting involvement from **34 California agencies**.
 - ◇ Prepared the **FY 2019-20 study** to be presented in fall 2021, which compares Central San's performance from FYs 2017-18, 2018-19, and 2019-20 to statewide and nationwide water/wastewater agencies.
- ◆ Continued to use the **Uniform Public Construction Cost Accounting Act** for savings on administrative costs of bidding and streamlining the bidding process for informal projects.
- ◆ Continued to evaluate, design, and manage construction sewer renovation projects **in-house** at costs below the industry standards or compared to outside services.



COVID-19 Response

- ◆ **Tracked all COVID-19-related costs** so all eligible expenses can be included with the reimbursement claim that will be submitted to state and federal assistance programs.
- ◆ Worked with California Office of Emergency Services to prepare **Public Assistance application**.
- ◆ Included a review of the **potential impacts** of the COVID-19 pandemic on Central San costs and revenues in the FY 2020-21 Budget document.

Objectives for FY 2021-22

- ◆ Continue the development of the **internal audit function** with workplans presented annually and internal audit reports presented to the Board.
- ◆ Enter into the **Final Financing Agreement** to receive SRF loan proceeds for the Solids Project.
- ◆ Present the FY 2019-20 **Benchmarking Study**.

GOAL THREE

FISCAL RESPONSIBILITY

Manage Finances Wisely and Prudently

Performance in Key Metrics



Metric	Target	Performance
Maintain service affordability	<p>SSC less than average of Bay Area agencies</p> <p>SSC plus Ad Valorem tax less than average of Bay Area agencies</p> <p>≤0.78% of median household income</p>	<p>Target Met —</p> <p>FY 2020-21 residential rates unchanged from FY 2019-20 and are still below average of Bay Area Agencies</p>
Standard and Poor's (S&P) and Moody's Credit Ratings	AAA/Aa1	AAA/Aa1
Debt service coverage ratio	≥2.0x	<p>23.6</p> <p>(using pre-audited figures)</p>
Actual reserves as a percentage of target	100%	<p>45.6% (O&M)</p> <p>278.7% (Sewer Construction)</p> <p>(using pre-audited figures)</p>
Operating expenditures as a percentage of operating budget	≥95%	<p>91.7%</p> <p>(using pre-audited figures)</p>
Reported material weaknesses or significant deficiencies in internal controls as part of annual financial audit	Zero (0)	Zero (0)
Difference in inventory value in Purchasing database vs. value submitted to Accounting	≤1%	0.62%*
Accuracy of physical inventory count vs. book value	≥95%	97%

* 0.62% for July and August only. The data is not available in the enterprise resource planning (ERP) software. This metric is no longer needed since all the data now resides in one database in the ERP, as opposed to the two databases in the prior software, which required a monthly reconciliation.

** 97% in July and August only. Data not yet available in the ERP software.



Proactively Plan for Future Operational Staffing Needs

- ◆ Management Analyst transferred to Human Resources (HR) to oversee and develop **Organizational Development and Talent Management** program initiatives.
- ◆ Developed a biannual **Supervisors' Summit** to discuss items of interest and receive brief refreshers on safety directives, HR procedures, workers' comp practices, and other policies.
- ◆ Developed the **Career Development Program** for implementation in FY 2021-22, to offer employees opportunities for career coaching and job shadowing to assist them in reaching their professional goals.
- ◆ Held **virtual trainings and Q&As** on Central San wide policies and procedures such as the transition to bi-weekly pay and the COVID-19 Exposure Prevention Plan.
- ◆ Managed the third cycle of the **BOOST Mentorship Program** with **7** mentees with mentors paired across divisions to learn about other parts of the organization outside the mentees' normal work activities, meet new people, complete a project in the mentor's realm of responsibility, and present on that project to Central San leadership.
- ◆ Completed and implemented the **Classification Study**
 - ◇ To ensure positions performing similar work with essentially the same level of complexity, responsibility, knowledge, skills, and abilities are consolidated into like classifications
 - ◇ To update the job classification specifications to ensure that they reflect industry trends, current essential functions/duties, and the knowledge and skills required for the classification
 - ◇ To ensure that they are compliant with all relevant state and federal laws (e.g., Americans with Disabilities Act, Fair Labor Standards Act, Family and Medical Leave Act, etc.), and
 - ◇ To ensure that employees are appropriately classified and that employees are not assigned duties that fall outside the scope of their classification.
- ◆ Developed pre- and post-employment **testing matrix** for all job classifications.
- ◆ Held a series of **writing workshops** for staff to improve communication and author clearer, succinct, and professional documents.
- ◆ Offered **financial webinars** on budgeting, investment, retirement, and other topics related to managing money.
- ◆ Offered **wellness seminars** on topics related to physical and mental health.
- ◆ Began offering a new **online therapy benefit** to support employees' mental health and overall well-being through Talkspace, an online service that conveniently connects employees to a dedicated therapist from a secure platform which is compliant with the Health Insurance Portability and Accountability Act of 1996.
- ◆ Offered periodic training for supervisors via the **NorCal Employment Relations Consortium**.
- ◆ Engaged the **next generation** of wastewater workers.
 - ◇ Continued the **Summer Student and Internship Programs**, offering positions across the organization.
 - ◇ Worked with BAYWORK to launch a **new website** with training resources.
 - ◇ Participated in BAYWORK's **Next Gen Water Workforce** event to host BAYWORK pre-apprentices and assist them in exploring skilled trades jobs.
 - ◇ Hosted two interns from Los Medanos College in the Mechanical Maintenance Shop as part of the **Technical Trades Internship Program**.
 - ◇ Engaged with **community and technical colleges** to assist their recruitment and program development.
 - ◇ Became an active participant in the BAYWORK-sponsored **Racial Equity, Diversity, and Inclusion group**, including staff being **certified** in Diversity, Equity and Inclusion in the Workplace.
 - ◇ Continued coordinating with other agencies to support **development of the regional workforce**.



Welcoming College Students and Recent Grads from Near and Afar: Central San's First Externship Program

This year, Central San developed and implemented its **first Externship Program**. For one work week in the spring, the online program provided an insider look at multiple career paths in the wastewater industry.

Each of the five three-hour sessions was an engaging and interactive introduction to Central San's divisions and the range of careers within each workgroup. Staff from various walks of life joined the virtual meeting to give the externs an intimate look into a typical day in their lives, what they enjoy about their jobs, background on how they came to Central San, and examples of projects they recently completed. These unique and engaging presentations were tailored to the externs' interests and allowed the participants time to ask questions and interact with the presenters.

The program was well received with **over 100 applications**. In the end, **45 externs** attended the program, representing **8 states** and **6 countries**, **29 schools**, **25 majors**, and **all academic standings**, ranging from college freshman to graduates who matriculated over a year ago. The externs remain engaged with Central San, and some of their feedback is included here.

Many of the highlights were learning something new each day that really surprised me. Especially the fact about "flushable" wipes, seeing how much maintenance it takes to keep the pipes clean, and also how each staff member really seems to enjoy their job.

I really want to pursue a career in wastewater and I am very interested in working at Central San because of their dedication to protect the environment and preserving water quality.

This externship has taught me so much during our short time. I hope to one day work for Central San or any career in wastewater as I have a deep passion for the environment and public health. Central San's mission and values are what truly inspire to me work for them one day.

I came to this program motivated to enter the water sector, and I appreciate the opportunity to have more conversations with professionals in the field. I'm grateful that Central San has allowed any student to have an inside look at a thriving and forward-thinking community of professionals.

Prior to this program I never considered a potential career in the wastewater industry. After learning about the high level of importance and essential need of the District's operations I now do find myself with a passionate desire to pursue a career in the industry. Besides being inspired to pursue a career within, I was also inspired to bring awareness to the critical need to make environmental/wastewater friendly decisions.

[This program I inspired me to not just pass but get a high score on my Wastewater Operator Class II Certification Exam.





Foster Relationships across All Levels of Central San

- ◆ Held **General Manager Town Hall** discussions with each department.
- ◆ Continued to hold **cross-divisional committee meetings**, including the IT Leadership and Smart Initiative Steering Committees.
- ◆ Completed **preparation activities** to assist in the timely adoption of successor MOUs for all bargaining groups, including analysis, development of a tracking Gantt chart, and benchmarking studies.
- ◆ **Held ongoing HR and union representative/employee meetings.**
- ◆ Facilitated **one-on-one meetings** between each Board Member and the Executive Committee Members of the Local One and Management Support/Confidential Group bargaining units to improve dialogue outside of formal negotiations.
- ◆ General Manager and the Executive Committee Members of the bargaining units **meet quarterly.**
- ◆ Began tracking status of the resolution of issues arising from the Local One and Management Support / Confidential Group **Labor Management Committees.**

Inspire Employee Engagement

- ◆ Launched **Employee Recognition Events** program to assist managers in acknowledging their teams' extraordinary achievements.
- ◆ Developed an innovation recognition program, which included the first annual **Innovations Fair**, which was held virtually and showcased and celebrated innovative employees going above and beyond to improve and optimize their work over the last three years.
- ◆ Continued to publish the *Lateral Connection* monthly employee **newsletters**, which keep employees informed about initiatives, activities, and information.

Meet or Exceed Industry Safety Standards

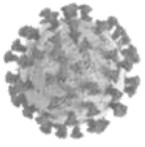
- ◆ Administration and Engineering Departments had **zero** lost workdays.
- ◆ CSO Division has worked **152** continuous days without a lost-time injury, Plant Operations Division has worked **363** continuous days without a lost-time injury, and Administration and Engineering Departments have worked **1,966** continuous days without a lost-time injury.
- ◆ Updated the **Exposure Control Plan** for Bloodborne and Infectious Pathogens.
- ◆ Oversaw Hazardous Materials Business Plan with **no violations.**
- ◆ Had **zero Cal/OSHA violations.**
- ◆ Responded to local wildfires by developing **Safety Directive 7.1 - Protection from Wildfire Smoke.**
- ◆ District Safety Committee implemented Safety Suggestions in **less than 60 days.**





WORKFORCE DEVELOPMENT

Recruit, empower, and engage a highly trained and safe workforce
Strategic Accomplishments



COVID-19 Response

In response to the pandemic and state and local health orders, Central San remained flexible and swiftly adopted policies and provisions to balance three important objectives: maintaining workforce and public **safety**, continuing the **essential services** provided by Central San, and ensuring that staff **remain productive** and **maintain their livelihood**. Measures adopted to promote these objectives included the following:

- ◆ **Closed facilities** to the public as needed and pivoted to services **online** where possible.
- ◆ Permitted the portion of the workforce who could do their work from home to **telework on an interim basis** during the COVID-19 situation.
- ◆ Adopted and kept updated a **COVID-19 Exposure Prevention Plan** to serve as the guiding document for preventive measures, hazard assessment and controls, and safe return-to-work protocols, based on Centers for Disease Control and Cal/OSHA guidelines.
- ◆ Secured sufficient masks and other **personal protective equipment (PPE)**.
- ◆ Enhanced and increased **cleaning and disinfection** of common areas.
- ◆ Modified operations to promote social distancing:
 - ◇ **Administered temporary work schedules** to reduce the number of staff in confined spaces such as maintenance areas, vehicles, and other work areas.
 - ◇ **Worked as a team to reallocate tasks** to limit staff on site.
 - ◇ Continued using **technologies** to mitigate the risk of spreading the virus and facilitate continuation of work, such as Microsoft Teams and DocuSign.
 - ◇ Conducted **virtual Board meetings**.
- ◆ Required contractors to provide a **COVID-19 Protection Plan**.
- ◆ **Restricted entry** to critical locations such as the Plant Operations Control Rooms.
- ◆ Maintained a **Cleaning and Disinfection Schedule Matrix** to define trigger points based on capacity in employee workspaces and proposed cleaning schedules.
- ◆ Began implementing an **Engineering Controls Plan** for returning staff to the workplace in a careful and phased manner, with the input of the employees and bargaining unit representatives.

Objectives for FY 2021-22

- ◆ Hold the third **Supervisory Academy**.
- ◆ Launch the **Career Development Program**.
- ◆ Launch the **Goals & Performance, Learning, and Safety** ERP modules.
- ◆ Roll out new **performance evaluation forms** with a coaching and career development approach.
- ◆ Implement a **learning management system**.
- ◆ Continue to **work collaboratively** and keep open lines of **communication** with bargaining units to resolve workplace issues in their early stages and prevent grievances.
- ◆ Continue to **modify working schedules and conditions** to reflect social distancing best practices during the pandemic and ensure **proper PPE** is provided.
- ◆ Implement additional administrative and engineering controls to enact the **Return to Office Plan** and safely bring staff back to the office in a thorough, thoughtful way that prioritizes the health and safety of all employees, customers and the community.



Metric	Target	Performance
Average time to fill vacancy (from request to hire)	≤60 days	70.9 Days
Turnover rate at or below American Water Works Association industry median	≤7.8%	6.8% (including retirees) 2.2% (excluding retirees)
Average annual training hours (external and internal training)	≥15 hours per full-time equivalent employee (FTE)	13.74 hours per FTE*
Completion of annual performance evaluations	100%	91.28%
Participation in annual Wellness Expo	Increase by 10% each year	45 participants served at a Wellness Clinic offered in lieu of the Expo**
Workers' Compensation experience modifier	≤1.0	1.10***
Temporary modified duty provided (Return to Work Program)	≥95% of recordable injuries	100%
Internal promotions (excludes entry-level positions)	≥25%	47.1%
Formal grievances filed	Zero (0)	Zero (0)
Employee injury and illness lost time incident rate	≤4.0	0.73

*Performance may have been affected by travel restrictions and event postponements due to COVID-19. Hours reported may not reflect all training hours. A centralized learning management system will improve reporting capability in the future.

**This represents a 53.1% decrease compared to participation in the 2020 Expo; however, employees engage in Wellness events throughout the year, including logging challenges in an online portal which has 297 registered users (including temporary employees).

***FYs 2019-20, 2020-21, and 2021-22 will have higher figure due to a rolling three-year calculation which includes one year with a higher than normal loss.



INFRASTRUCTURE RELIABILITY

Maintain facilities and equipment to be dependable, resilient, and long lasting
Strategic Accomplishments

Manage Assets Optimally to Prolong Their Useful Life

- ◆ Received **Best Asset Management Program 2020** award from *Uptime Magazine*.
- ◆ Completed **4 Preventative Maintenance Optimizations**, including on the Influent Pump and Motors, the Primary Sedimentation, and Boiler Feed Water System.
- ◆ Developed **inspection templates** for each asset-condition monitoring technology (e.g., infrared, vibration, and ultrasound testing).
- ◆ Completed **965** services on vehicles and equipment.
- ◆ Converted cleaning schedules **from routine to scheduled** maintenance to ensure each line has a scheduled cleaning date.
- ◆ Completed **14** Don't Just Fix It; Improve It (DJFI) initiatives to increase maintenance effectiveness, lower costs, and increase equipment reliability.
- ◆ Completed **58** QA/QC Maintenance Planner updates to incorporate Maintenance staff's suggestions to Preventive Maintenance work orders, including such as updated asset information, improved standard operating procedures, and improvements to task effectiveness or efficiency.
- ◆ Created a **Plant Maintenance Dashboard** to provide work order QA/QC, which is critical for planning future maintenance work and deciding work and resource allocation.
- ◆ Developed Cityworks **templates for predictive technologies**.
- ◆ Continuously reviewed maintenance procedures and identified opportunities for improvement as part of the overall Maintenance strategy, including **failure reporting** and **corrective action processes**.
- ◆ Began developing **Asset Health Indicator** templates so eventual health scores may be configured based on testing and analysis and factored into each Asset Health Score. The Asset Health Indicator project is both a Smart Initiative and IT Master Plan project.
- ◆ Plant Maintenance and Engineering **collaborated** in pre-design, design, and construction to ensure procurement and correct installment of the latest, safest, most reliable equipment and maintainable technology.
- ◆ Used **vibration analysis** to troubleshoot issues with Aeration Blower #1.
- ◆ Performed multiple **laser alignments** on the return activated sludge pumps and dissolved air flotation recycled press pumps).
- ◆ Completed **ultrasound** preventative maintenance on the Steam Trap.
- ◆ Continued the **breaker overload testing** and **winding analyzer** programs, which play a significant role in lowering equipment downtime costs, increasing reliability of equipment, increasing effectiveness of the motor management program, and enhancing acceptance testing of new or overhauled equipment.
- ◆ Continued to develop and implement procedures through the **Asset Condition Monitoring Team** for thermography, ultrasound, vibration, laser alignment, high speed camera motion amplification, fluid analysis, and motor winding analysis.
- ◆ Made additions to the **Asset-Centered Maintenance (ACM) program** (pictured below) and used **dashboards** for various key metrics and ACM templates for each technology to better monitor, analyze, and act on exceptions.
- ◆ Increased **accessibility of Asset Management and Reliability Engineering information**, including tracking DJFI initiatives, improving spares management, creating new workflows to the Cityworks maintenance system, adding job plans to GeoPortal, and creating links in GeoPortal to reliability analysis information and preventive and predictive maintenance program tasks based on asset identification.





Plant Maintenance Staff: Certifiably Skilled

The entire **Plant Maintenance Division** is committed to Central San’s drive toward continuous improvement. In the past two years alone, staff have collectively earned **more than 20 new professional certifications**, most of which go above and beyond their job requirements.

The focus on professional development is paying dividends for Central San, too. Many of the certifications earned by staff are in technologies that enhance predictive maintenance efforts. For example, **thermography** lets technicians see hot spots and identify potential hidden electrical problems. Ultrasound helps them hear changes that could indicate an impending bearing failure. And **motion amplification** (at right) is used to detect subtle vibrations, signs that a piece of equipment may be loose or imbalanced.

By detecting small irregularities before they lead to big problems, maintenance staff are able to maximize the performance and lifespan of plant equipment while minimizing the need for expensive emergency repairs. This proactive approach has helped the Division **reduce reactive maintenance to less than 20% of work orders**, saving both stress and money.

The certifications are test-based and not easy to get. Employees prepare for the tests through on-the-job training as well as independent study. The Division provides a variety of support including study materials, time, and mentoring. Building a culture of continuous improvement and breeding enthusiasm for these technologies have been key to their success.



Honing A Variety of Skill Sets

Division staff’s certifications and the number of staff with each certification are listed below.

- CWEA Mechanical Technologist (7)
- CWEA Collection System Maintenance (3)
- CWEA Electrical/Instrumentation Technologist (2)
 - Electric Power Research Institute—Instrumentation—Level 1 (2)
- Certified Maintenance Manager (1)
 - Boom Truck (1)
- Machinery Lubrication Technician (4)
- California General Electrician (5)

- Infrared—Level 1
- Motion Amplification—Level 1 (4)
 - Ultrasound—Level 1 (2)
 - Thermography—Level 1 (2)
- National Association of Sewer Service Companies - Pipeline Inspection Grade II (1)
 - Certified Reliability Leader (6)
 - Operator-In-Training Certificate (2)



Execute Long-Term Capital Renewal and Replacement Program

- ◆ Completed **sewer renovation projects** in Danville, Martinez, Walnut Creek, Lafayette, Orinda, and other nearby communities.
- ◆ Completed upgrades to the **Emergency Sludge Loadout Facility**, a critical step in the planned improvements to the Solids Project.
- ◆ Completed other projects, including the **Treatment Plant Control Systems Input/Output (I/O) Replacement; Outfall Improvements, Phase 7; and Concrete and Mechanical Renovations Project.**
- ◆ Constructed new steel storage tanks and replaced a failed transformer as part of the **Filter Plant and Clearwell Renovations Project—Phase 1.**
- ◆ Made significant construction progress on the **Pump Station Upgrades, Phase 1.**
- ◆ Started several new projects including the **Annual Infrastructure Replacement Project; Treatment Plant Piping Renovations, Phase 10; and Electric Blower Improvements.**
- ◆ Completed **condition assessments for the Steam and Aeration Blower System Renovation** Project and developed business case evaluations to scope future capital projects. As a result, the Electric Blower Project started design early to facilitate construction of the Solids Project.
- ◆ Started **condition assessments for the Ultraviolet (UV) Disinfection Replacement Project and UV Hydraulic Improvement Project.**
- ◆ Replaced several critical **VFDs.**
- ◆ Improved reliability of Central San’s Solids Conditioning Building by **upgrading obsolete communication equipment** to address issues with the monitoring system which had been the root cause of Title V violations.
- ◆ Signed an early adopter contract to replace InfoMaster software with InfoAsset, which has **vertical asset prioritization** built in. In addition to beginning to develop the prioritization model for vertical assets, this pilot puts a freeze on an annual software subscription which will save an estimated **\$64,000**. Staff will be pilot testing the software and evaluating software solutions as a part of IT Master Plan.
- ◆ Initiated **Sewer Structure Inventory Project** to collect manhole and cleanout conditions, locations in bike lane, road type, and whether there are any structural issues needing immediate attention and recommending for CSO review.
- ◆ Met with the **Bay Area Climate Adaptation Network (BayCAN)** to initiate sea level rise planning discussions.
- ◆ Continued to design infrastructure **repair, replacements, and improvements** to the collection system, treatment plant, and other District facilities.
- ◆ Completed annual Basin A South **soil cap seep repairs.**
- ◆ Obtained **permit** for treatment plant 9000 valves replacement.
- ◆ Developed a detailed **control system design document** resulting in standard wiring, documentation, and supervisory control and data acquisition (SCADA) screens across all capital projects. Historical lack of standards has resulted in disparate installations which have made maintenance and troubleshooting significantly more challenging.

Protect Personnel and Assets from Threats and Emergencies

- ◆ Successfully **maintained operation of all 18 pumping stations** during PG&E Public Safety Power Shutoff events.
- ◆ Provided updated **Emergency Management Program** information to the Board.
- ◆ Implemented new **Emergency Mass Notification System** to ensure two-way communication with employees, managers and stakeholders during a disaster.
- ◆ Acquired and tested **satellite service for mobile phones** for possible deployment in service areas with poor cellular service.
- ◆ Participated in the **Operational Area Council** to contribute to creating an effective and multijurisdictional approach to disaster preparedness and planning.



Sizing up Central San's Large-Diameter Pipes

Measuring **up to 8.5 feet wide**, Central San's large diameter pipelines—or interceptors—are the workhorses of the system. They are also aging. Nearly half of the interceptors are **more than 50 years old**. To better plan for needed repairs and replacements, Central San launched a new pilot program using state-of-the-art technology to assess the condition of its largest sewer lines.

Back in the 1970s, Central San pioneered the use of closed-circuit TV (CCTV) for inspecting pipelines. CCTV works well for visually assessing the condition of the pipes. Sticking to tradition, Central San is pioneering new multi-sensor technology, including **lidar and 3-D underground mapping** to obtain more precise information on the condition and location of the concrete interceptors. These sophisticated sensors travel through the pipelines on robotic platforms, collecting data as they go.

Lidar uses lasers to map the inside diameter of the pipe. These cross-sectional measurements can help Central San's engineers spot deviations in the diameter of the pipe—a sign that the pipe may have corroded or thinned in that area. **3-D mapping** provides accurate information on a pipeline's horizontal and vertical location, which helps staff design future pipe renovations.

The goal of these high-tech inspections is to help **optimize pipeline replacement schedules**. If pipes are replaced too soon, the maximum use is not being gotten from them—or the maximum value for customers' rate dollars. But if pipes are replaced too late, the risk of pipe failures increases.

In fall 2020, staff performed **pre-inspections** at maintenance holes to collect condition information for comparison with the multi-sensor inspection results. Staff plans to perform multi-sensor inspections of the pipes and in-depth maintenance hole inspections in fall 2021 at around half a dozen locations, including a section of 39-inch diameter pipe that runs under Highway 4 near the treatment plant. Then, depending on the initial results, staff will continue scanning up to an additional 5 miles of pipeline.



Of the more than 1,500 miles of pipeline maintained by Central San, **76 miles** are classed as large-diameter pipelines, measuring greater than two feet in diameter. Though they comprise only about 5% of the total pipes, the interceptors represent **more than one-third** of the value of Central San's collection system.

Pictured, staff oversees a pre-inspection being performed by a contractor.

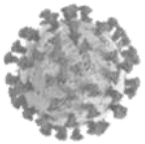


INFRASTRUCTURE RELIABILITY

Maintain facilities and equipment to be dependable, resilient, and long lasting
Strategic Accomplishments

Protect Personnel and Assets from Threats and Emergencies

- ◆ Increased **security guard presence** on main campus.
- ◆ Installed additional **access control devices**.
- ◆ Implemented **access control changes** to facilitate construction work without jeopardizing site security.
- ◆ Completed **migration of equipment** from outdated Data Center to newly-constructed and modern Data Center.
- ◆ Implemented **backup solution** for cloud-based documents and infrastructure.
- ◆ Replaced **wireless access points** throughout most buildings for better reception and to enhance reliability of communication tools.
- ◆ Implemented **redundant internet access capabilities** to facilities and **doubled internet connection speed**.
- ◆ Improved security with **Advanced Threat Protection** tools.
- ◆ Conducted **phishing prevention training exercises** for all staff.
- ◆ Contracted with a cybersecurity expert to perform a **ransomware audit**.
- ◆ Implemented new **video security software** used throughout Central San facilities.
- ◆ Began an **Asset Bar Code Tags pilot project** to identify and track equipment so staff can easily scan assets and create an accurate workorder in the computerized maintenance management system, Cityworks.



COVID-19 Response

In response to state and local health orders restricting construction activities, Central San reviewed all construction projects to distinguish which ones are essential for ensuring reliable service and which might be postponed. In projects that moved forward during the pandemic, contractors were required to do the following:

- ◆ Update their company **Illness and Injury Prevention Plan** to address COVID-19.
- ◆ Have daily COVID-19 **safety logs** and **sign-in sheets**.
- ◆ Wear **PPE** and provide **handwashing and sanitizing stations**.
- ◆ Coordinate work activities to **minimize interactions** with Central San staff, subcontractors, private residents, and construction management staff.
- ◆ Post **signage** reminding of the need for physical distancing.
- ◆ Perform **temperature checks**.



Objectives for FY 2021-22

- ◆ Continue to drive the **development of the ACM Program** and integrate with analytics for earliest warning of equipment degradation.
- ◆ **Develop a prioritization model** for vertical assets.
- ◆ Continue to **integrate analytics** into day-to-day O&M.
- ◆ Pilot and integrate **machine learning** into new projects.
- ◆ Make progress on the **Solids Project**.
- ◆ Complete the construction of the **Filter Plant and Clearwell Improvements - Phase 1A Project**, which will include replacing critical electrical gear and increase reliability at recycled water storage facilities.
- ◆ Complete the construction of the **Influent Pump Electrical Improvements Project**, which will replace the variable frequency drives (VFDs) at the Headworks Facility at the treatment plant.
- ◆ Complete review and update of the **Continuity of Operations Plan**.



Metric	Target	Performance
Safety-prioritized work orders completed on time	100%	93%
Regulatory Title V work orders completed on time	100%	93%
Planned treatment plant preventative maintenance completed on time	≥95%	94%
Uptime for vehicles	100%	100%
Miles of sewers replaced or rehabilitated (focused on deteriorated small diameter pipelines)	≥6.0	8.7
Large diameter and force main condition assessment	≥3 miles per year for the next five years starting in FY 2020-21	NA—inspections have not begun*
Average time to execute Engineering agreements from complete package submittal or Board approval	≤2 weeks	Data not yet available in the ERP software
Capital expenditures as a percentage of capital budgeted cash flow including carry forward	>90%	64.11%**
Information system outages affecting normal business operations	100% uptime	100% uptime
Data backup and recovery	Zero lost data	1 minor data loss incident

*Inspections to start in FY 2021-22; once inspection begins, the mileage will catch up to the 5-year goal.

**Lower spending was caused by delayed spending in the treatment plant program due to shortages of materials and equipment delays.



Implement the Central San Smart Initiative

- ◆ Held quarterly **Smart Steering Committee meetings**.
- ◆ Identified the following **projects**: Development of Dashboard for Treatment Plant Maintenance Decision-Making; Smart Manhole Cover Pilot, Development of Computer Aided Drafting and Building Information Modeling Standards, Development of Dashboard for CSO Field Operations, Treatment Plant Asset Handover Optimization, and Development of an Asset Health Indicator Tool.
- ◆ Developed an **Implementation Plan**. Several of the projects are coordinated with the IT Master Plan Update.

Improve and Modernize Operations through Technology and Efficiency Measures

- ◆ **Replacing Central San's ERP system with Oracle Fusion Cloud** has been a highly complex and time-consuming effort involving conference room pilots, user acceptance testing, closing of configuration gaps, data conversion system documentation, and training staff. The new ERP will increase automation, be more user-friendly for employees, make it easier to produce reports, allow for real-time data entry synchronization and authorization, and create more centralized record keeping. This FY, staff performed the following to advance this endeavor:
 - ◇ Launched the **Finance, Purchasing, Payroll, Procurement** (requisitions and purchase orders), **Procurement Card** and **Budgeting modules** and implemented electronic business workflows to improve operational efficiency and the effectiveness of internal controls.
 - ◇ Continued development of **Permitting module** and initiated use on encroachment verification forms.
 - ◇ Continued to **work with consultant on system capabilities** in areas such as reporting, contract management, integration with existing databases, and system access for users.
 - ◇ Began planning to purchase and implement software to provide functionality and efficiency in the **inventory management processes**.
- ◆ Developed **map services** for ERP Permitting module for public and internal view.
- ◆ Upgraded **Permit Counter Report** with new ERP permit data and developed **data extract process** to import parcel and permit data exported by the ERP.
- ◆ **Construction Inspectors** are now using iPads, which are being used with the new ERP Permitting module to the extent that functionality is currently available.
- ◆ Retained a consultant to develop business mapping and implement a new **Sewer Service Charge billing software**.
- ◆ Maintained **Optimizations Program** to commit to efficiency, effectiveness, and continuous improvement by tracking and reporting progress and presented **Optimizations Program Annual Report** to the Board.



With more than 30,000 maintenance access holes in its service area, Central San is using a new tool to help complete adjustments more safely and efficiently. **Mr. Manhole** (pictured) uses a large cutting device to help remove a donut-shaped section of the roadway centered on the maintenance hole. Once the road surface and old casing are removed, the CSO crew brings the frame up to grade, reattaches the cover ring, pours new concrete, and finishes it to street level. In a traditional repair, crews would use jackhammers to break up the roadway around the maintenance hole. Although Mr. Manhole is not necessarily faster than the old method, it is **easier, helps avoid injuries, and yields a better final product** that is less likely to leak, crack, or crumble from traffic passing over it, **saving time and money** over the long term.



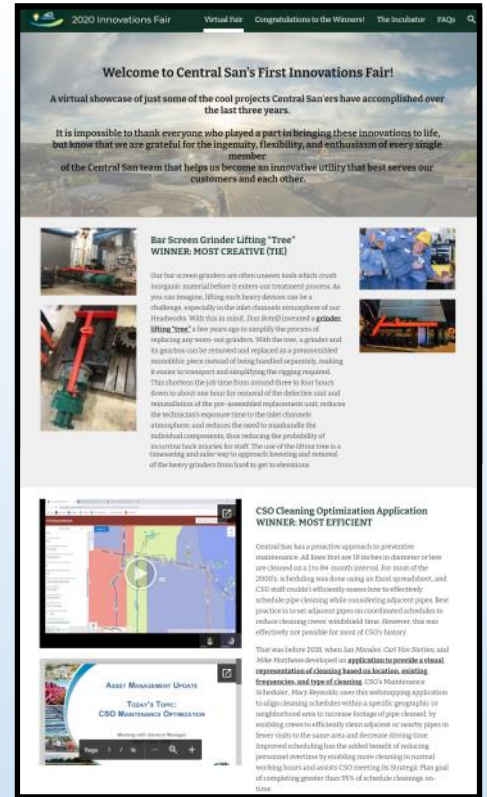
- ◆ Upgraded existing **CCTV software**, including improvements for the server and trucks, setting up Contractor Portal services/synching and data migration from the existing dataset, and upgrading to IT-Pipes Mobile in 3 CCTV units.
- ◆ Installed **10 manhole monitors** for two manufacturers, Smart Cover and ADS, as a pilot project to evaluate and predict collection system flows and avoid spills.
- ◆ Created a **Structure Elevation Safety Project mobile app** for CSO staff to review manholes and create work orders or locate service request tickets in Cityworks if necessary.
- ◆ Selected a consultant for the **IT Master Plan update**, with Phase 1 to be completed in FY 2021-22.
- ◆ Contracted with a vendor to **administer Medicare reimbursements**, saving Finance staff time on processing these in house, and **transitioned cafeteria plan benefits program administration** to the same vendor for efficiency.
- ◆ Implemented an **insurance certificate management platform** to increase compliance and reduce cost.
- ◆ Purchased a **production hose clamping machine** to be able to repair broken hoses in-house instead of buying new ones, which will save thousands of dollars a year.
- ◆ Began utilizing Cityworks to **track the valve exercising program** for the recycled water distribution system control valves.
- ◆ Completed the design and perform constructability reviews using **3-D modeling** under the Solids Project.
- ◆ Developed **Equipment Summary Forms** for capital construction bid packages.
- ◆ **Automated work orders** for Regulatory permits based on the assets in Cityworks.
- ◆ Implemented Central San's **first ethernet controlled VFDs** which resulted in simplified wiring and availability of power monitoring and diagnostic data.
- ◆ Installed **infrastructure for mobile SCADA software** (Dynac).
- ◆ Configured **automatic notifications** to project managers of expiring contracts, so materials and services can be purchased with limited delays.
- ◆ Developed a **standardized electronic file folder structure** to better manage the Board Policies and Administrative Procedures.
- ◆ Installed **47 private sewer laterals** as part of the Danville Sewer Renovations, Phase 3, Project, which saved about \$1 million in capital costs by reducing the amount of pipe needing to be replaced and about \$15,000 annually on future cleaning and maintenance.
- ◆ Replaced and modernized the **audio/visual systems** in the Board Room and Multi-Purpose Room (MPR).
- ◆ Initiated pilot project design for new **tertiary membrane filtration** with pressurized membranes to improve recycled water production in lieu of renovating three existing filters.
- ◆ Continued piloting **Water Pigeons** for remote recycled water meter reading.
- ◆ **Evaluated food waste and a biosolids anaerobic digestion facility** in collaboration with Anaergia.
- ◆ Presented two papers at the 2020 Water Environment Federation Technical Exhibition and Conference (WEFTEC) conference: **"An Adventurous Journey of Implementing Asset Management Program at a Public Agency"** and **"Wastewater Plant Condition Assessment: Methods and Results."**
- ◆ Presented paper on **"The Pressure's On! Modeling the Way for Recycled Water Purple Pipe Optimization"** at the 2020 CWEA Conference.
- ◆ Presented **"Esri Facilitates and Enables Asset Management at Central San"** at Esri 2020 Virtual Esri User Conference.
- ◆ Staff continues to participate in the **ISLE Technology Approval Group** to learn about and help pilot new technologies.
- ◆ Continued participation in the **Hydrothermal Processing of Wastewater Solids (HYPOWERS) pilot project**. Phase 2 is pending funding and Department of Energy approval.



Celebrating Employees' Ingenuity

To share stories of optimization and innovation, Central San held its first **Innovations Fair**. The virtual fair (pictured at right) recognized employees going above and beyond to improve and optimize their work by featuring **22 projects** completed over the last three years, as nominated by staff. The website included videos, PowerPoints, and pictures to help demonstrate the impacts of each optimization. Collectively, the projects represented **ingenuity, dedication, and creativity** from staff from all across the organization—from administration, to engineering, to operations.

Over several weeks, Central San staff visited the fair and cast virtual ballots for their favorites in four categories. As announced via a live virtual awards ceremony, the **winners** are pictured below with their projects:



**Innovation of the Year
(Grand Prize): Overflow Simulator**



**Most Inspiring:
Hot Oil Recirculation System**



**Most Creative - Tie:
Bar Screen Grinder Lifting Tree**



**Most Creative - Tie:
Using FaceTime to Gather Data Points for Tuning**



**Most Efficient:
CSO Cleaning
Optimization Application**



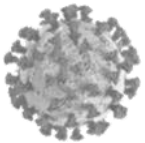
Optimization and Innovation through Mentorship

Central San’s project-based BOOST Mentorship Program has a history of birthing innovative, cross-divisional optimization projects. Some of this year’s mentees and mentors worked together to choose and work on the following optimization projects, which the mentees spearheaded with the assistance of their mentor and technical-skills mentors:

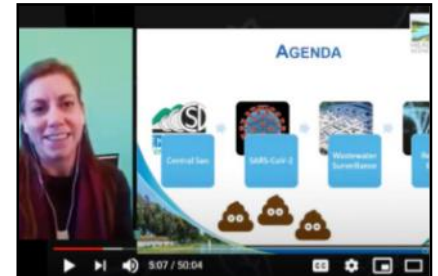
- ◆ **Digital Operator Rounds Pilot** to investigate using mobile tablet devices instead of paper to transmit Plant Operators’ data from the field to the Control Room.
- ◆ **Retrofit of Electrical and Control Systems for Service Air Compressor #2.**
- ◆ **Category One Sanitary Sewer Overflows Lab Reporting Procedure**, including automatic notifications from CSO to the Lab and the creation of a link between Cityworks and the geographic information system, GeoPortal, for improved record keeping.
- ◆ Development of an **Asset Health Indicator Tool** for condition-based maintenance.
- ◆ Integration of **FY 2020-21 Budget into the New ERP.**

The projects are in various stages of completion, but each project has or will result in improved efficiency and effectiveness for Central San and represent a legacy left by each mentee on Central San’s operations.

COVID-19 Response



- ◆ Launched an online **COVID-19 contact tracing form.**
- ◆ Participated in SARS-CoV-2 **wastewater epidemiology studies** with Stanford University, University of California at Berkeley, Contra Costa Health Services, and the United States Department of Human and Health Services. (Pictured at right, Associate Engineer Amanda Cauble presents on the studies as part of the Headwaters Science Institute “Lunch with a Scientist” series.)



- ◆ Participated in **wastewater surveillance** efforts.
- ◆ Used **paperless entry and approval workflows** for key financial business processes, **electronic signature technology**, and **online meetings and trainings.**
- ◆ Used dashboards to provide critical insights to help guide staff allocation and resources: 1) the **Emergency Response Dashboard** to track staffing resources and 2) the **Manager Dashboard** (pictured) to track performance, such as feet of sewer mains cleaned, daily influent flow treated, plant maintenance activities performed, permits processed, engineering capital projects in construction or out to bid, safety trainings completed, and other metrics.



Objectives for FY 2021-22

- ◆ Evaluate and review **new Sewer Service Billing software.**
- ◆ Hold another **Innovations recognition event** to share innovations, communicate what is to come, and inspire employees to further optimize their operations.
- ◆ Review **plant processes for optimization** opportunities.
- ◆ Undertake initiatives in the **IT Master Plan** such as Treatment Plant Asset Handover Process Optimization and Document Management.



Metric	Target	Performance
Projects initiated under Central San Smart	≥3	4
Reviews or pilot tests of new and promising technology	≥3	6
Research papers and findings presented	≥3	3
Don't Just Fix It; Improve It (DJFI) work orders completed	≥35	14*
Completed optimizations	≥20	20

*Performance may have been affected by modified working schedules to adhere to social distancing mandates due to COVID-19.





Maintain a Safe Working Environment for Employees and the Public During the COVID-19 Pandemic

- ◆ **Communicated** regularly with staff to provide updates on new guidelines and health orders.
- ◆ Implemented and enforced the **COVID-19 Exposure Prevention Plan**, and held virtual Q&As to explain and answer questions on updates to the plan.
- ◆ Allowed employees to **telework** where possible based on their job duties and ability to work effectively from home.
- ◆ Provided **updates** on the pandemic at every Board meeting.
- ◆ Hired temporary staff to perform **additional daily cleaning** in accordance with the Cleaning and Disinfection Schedule Matrix.
- ◆ Implemented recommendations of **Engineering Controls Plan**, such as installing signage, dividers, and permanent automatic faucets and soap dispensers.
- ◆ Began reviewing implementations needed for the **Return to Office Plan** to address increasing staff density.
- ◆ Discussed and compared best practices with **sister agencies**.
- ◆ Staffed and scheduled **construction projects** accordingly to complete necessary infrastructure.

Plan Ahead for Scenarios of Direct Adverse Impacts

- ◆ Held a **COVID-19 Financial Impacts Workshop**.
- ◆ Addressed COVID-19 related impacts in the **Financial Plan**.
- ◆ Continually monitored and quantified COVID-19 related **impacts to revenues and costs**.
- ◆ Provided **various rate options** in light of external economic circumstances and impacts on Central San finances.
- ◆ Continued tracking COVID-19 related costs for potential **FEMA reimbursement**.

Objectives for FY 2021-22

- ◆ Remain **flexible and adaptable** as the pandemic and other emergency events may impact operations.
- ◆ Enact the **Return to Office Plan** to bring remaining remote-based employees back to the office, when it is safe to do so and state and local health guidelines allow.

Performance in Key Metrics

	Metric	Target	Performance
Operational	Number of sanitary sewer overflows (vs. during the last five years for the same time period)	≤1 standard deviation	4.86*
	Permit compliance	100%	99.97% (Air) 100% (Liquid) 98.48% (Collection System)
	Productivity	95%	>95%

* The intent of this metric is to measure whether overflows have increased during pandemic events or natural disasters. *If increased*, the goal is to have a standard deviation of ≤1. Because overflows have reduced in FY 2020-21 when compared to the past five years, the target was met and exceeded.



AGILITY AND ADAPTABILITY

Preserve business continuity during pandemic events or major natural disasters
Performance in Key Metrics

	Metric	Target	Performance
Financial	Increase in costs to the Operations & Maintenance budget beyond what is approved	0%	0%
	Revenue projections met	100%	98.9%
	Additional increase in unfunded liabilities	≤5%	UAAL is paid off and is at 0%*
	Funds granted from available state and federal reimbursement programs	100% of requested funds	Application in progress
Customers	Customer satisfaction levels	≥90%	94.9%
Safety	Requested PPE provided	100%	100%
	Requested safety improvements to the workplace fulfilled	100%	100%
	Employees trained on COVID-19 prevention	100%	100%
	Twice-daily cleaning of all restroom facilities	100%	100%
Execution of Capital Improvement Program	Capital expenditures as a percentage of capital budgeted cash flow including carry forward	≥85%**	64.11%***

*While overall O&M spending is below budget, incremental COVID-19 costs will be submitted for potential reimbursement to FEMA and the State of California Department of Finance.

** Performance on the Goal 7 metrics will only be tracked in the event of a pandemic or natural disaster, in which case the target for this metric will supersede the ≥90% target of the same metric in Goal 5.

***Lower spending was caused by delayed spending in the treatment plant program due to shortages of materials and equipment delays.

AB	Assembly Bill	HHW	Household Hazardous Waste
ACM	Asset-Centered Maintenance	HHWCF	Household Hazardous Waste Collection Facility
AWWA	American Water Works Association	IT	Information Technology
BACWA	Bay Area Clean Water Agencies	M	Million
CASA	California Association of Sanitation Agencies	MGD	Million Gallons per Day
CCTV	Closed-Circuit Television	MISAC	Municipal Information Systems Association of California
CCWD	Contra Costa Water District	NACWA	National Association of Clean Water Agencies
CSDA	California Special Districts Association	NOV	Notice of Violation
CSO	Collection System Operations	NPDES	National Pollutant Discharge Elimination System
CWEA	California Water Environment Association	PFAS	Per- and Polyfluoroalkyl Substances
DERWA	Dublin San Ramon Services District – East Bay Municipal Utility District Recycled Water Authority	PG&E	Pacific Gas & Electric
DJFI	Don't Just Fix It; Improve It	PPE	Personal Protective Equipment
DSRSD	Dublin San Ramon Services District	QA/QC	Quality Assurance/Quality Control
ERP	Enterprise Resource Planning	SCADA	Supervisory Control and Data Acquisition
EUM	Effective Utility Management	SRF	State Revolving Fund
FEMA	Federal Emergency Management Agency	SSC	Sewer Service Charge
FTE	Full-Time Equivalent	SWRF	Satellite Water Recycling Facility
FY	Fiscal Year	UAAL	Unfunded Actuarial Accrued Liabilities
GFOA	Government Finance Officers Association	UV	Ultraviolet
GHG	Greenhouse Gas	VFD	Variable Frequency Drive



