



# 2017-18 STRATEGIC PLAN ANNUAL REPORT

July 1, 2017 — June 30, 2018

A Summary of Achievements and Progress



# A SECOND YEAR OF CONTINUED SUCCESS

## MESSAGE FROM THE GENERAL MANAGER



On behalf of the Central Contra Costa Sanitary District (Central San), I am proud to present our annual report, detailing the accomplishments and progress during Fiscal Year (FY) 2017-18, the second year of our FY 2016-18 Strategic Plan.

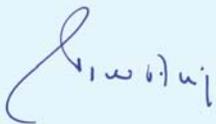
Driven by the Goals set by our Board of Directors and the guidance of the Effective Utility Management (EUM) framework, our Strategic Plan consists of the Board's 6 Goals, plus 16 Strategies and 40 Initiatives that are focused on completing our Mission and addressing challenges and future opportunities. Key Performance Metrics help measure whether we have achieved our Goals.

This approach allows us to strive for continuous improvement as we fulfill our role of protecting our community's health and environment. This report provides an overview of the many achievements of our dedicated and professional staff, who work to uphold Central San's Mission, Vision, and Values.

Some of the highlights over the past year include the following:

- Achieved 20 years of total compliance with our wastewater discharge permit;
- Launched a new website to better meet the needs of our customers;
- Completed an award-winning Wet Scrubber Demonstration Project, which resulted in an estimated \$14M in savings for our Solids Handling Facility Improvements Project;
- Executed a memorandum of understanding (MOU) with the Contra Costa Water District (CCWD) and Santa Clara Valley Water District (SCVWD) to collaborate toward an innovative recycled water exchange;
- Held a week-long household hazardous waste (HHW) collection drive to celebrate 20 years of the facility's operation, which resulted in our highest participation week ever; and
- Hosted the third Central San Academy.

We wish to acknowledge that these accomplishments would not be possible without the leadership and support of our Board and the continued confidence of our customers. Together, we have successfully fulfilled our FY 2016-18 Strategic Plan Goals and set ourselves on a path for success as we move into the FY 2018-20 Strategic Plan.



Roger S. Bailey, General Manager

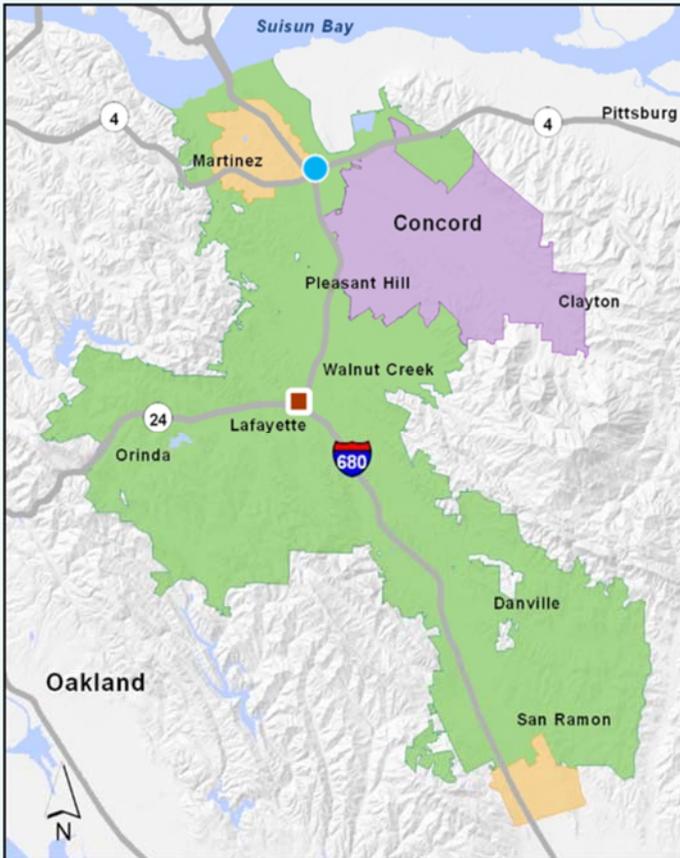
*At Central San, we owe it to our customers to feel as if we have never "arrived."*

*We are driven by a constant need to deliver value to them.*

*We put our values of People, Community, Principles, and Leadership and Commitment first.*

# CENTRAL SAN

## ABOUT US



-  Sewage collection and wastewater treatment; HHW disposal for approximately 348,300 people
-  Wastewater treatment and HHW disposal for 136,600 Concord and Clayton residents by contract
-  HHW disposal only
-  Central San headquarters, treatment plant, HHWCF, and Residential Recycled Water Fill Station
-  Collection System Operations (CSO) headquarters

Central San is a special district responsible for the collection and treatment of wastewater in a **182-square-mile service area**, for approximately **488,900 residents** and more than **3,000 businesses**. We were established in 1946 and are headquartered in Martinez, about 30 miles east of San Francisco.

We operate and maintain more than **1,540 miles of sewer pipelines**, **18 pumping stations**, as well as a wastewater treatment plant that cleans and disinfects an average of **44 million (M) gallons a day**. Most of this effluent is discharged into Suisun Bay, but a portion receives further treatment to become recycled water, some of which is reused by our plant or redistributed to our customers through our Residential and Commercial Fill Stations.

We have **290 budgeted full-time employees** and are led by a General Manager, a Deputy General Manager, 2 Department Directors, and 13 Division Managers.

### *Not just wastewater...*

As part of our role as stewards of the environment, for the past 20 years, we have also operated and maintained a Household Hazardous Waste Collection Facility (HHWCF) for about **24,000 residential and small business customers**. The facility keeps more than **2M pounds of hazardous waste** per year out of our landfills and waterways through collection, recycling, or safe disposal.

We also partner with a Pharmaceutical Collection Program which offers 13 locations that collect and safely dispose of more than **12,500 pounds of unwanted drugs** each year.

# OUR MISSION, VISION, AND VALUES

## THE CORNERSTONE OF OUR OPERATIONS

The FY 2016-18 Strategic Plan draws upon the work accomplished under previous Strategic Plans and is guided in part by our Mission, Vision, and Values. In our second year of executing the Plan, we continued to optimize operations, streamline processes, and harness innovative technologies in order to manage and contain costs and provide the best service possible at responsible rates.

### OUR MISSION

To protect public health and the environment

### OUR VISION

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



## OUR 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

### COMMUNITY

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

### PRINCIPLES

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

### 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

# EFFECTIVE UTILITY MANAGEMENT

## A FRAMEWORK FOR OUR STRATEGIC PLAN

### 10 KEY ATTRIBUTES



Product Quality



Customer Satisfaction



Employee and Leadership Development



Operational Optimization



Financial Viability



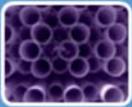
Infrastructure Strategy and Performance



Enterprise Resiliency



Community Sustainability



Water Resource Sustainability

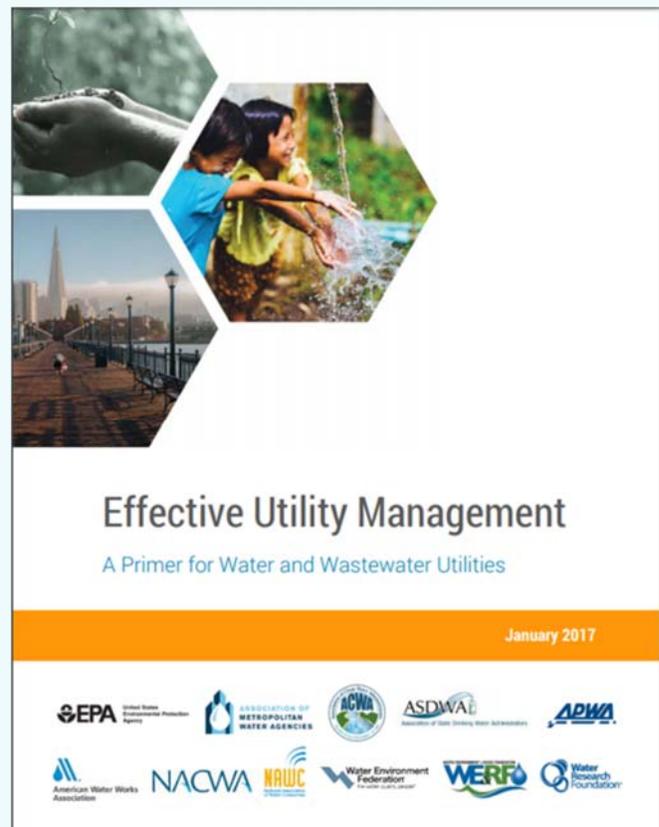


Stakeholder Understanding and Support

The Effective Utility Management (EUM) framework is regarded as the industry standard for strategic planning and performance metrics monitoring. It was put together by the Environmental Protection Agency and a selection of water sector associations.

The framework consists of 10 “key attributes”: a set of reference points intended to help effectively managed and high performing wastewater utilities such as ourselves keep a balanced focus on all important operational areas.

As shown on the following page, we developed each Strategy to align with at least 1 of the 10 EUM attributes to ensure that our priorities are in line with best management practices, and all facets of our operations are addressed.



# OUR STRATEGIC PLAN AND THE EUM

## ALIGNMENT OF OUR GOALS AND STRATEGIES WITH THE EUM 10 KEY ATTRIBUTES

| Goal   | Strategy  | EUM Key Attribute(s)   |
|--|---|--|
| <b>Goal 1 — Provide Exceptional Customer Service</b>                             | Foster Customer Engagement and Awareness  | Customer Satisfaction<br>Operational Optimization                                    |
|  | Improve Interdepartmental Collaboration   | Customer Satisfaction<br>Employee and Leadership Development                         |
| <b>Goal 2 — Strive to Meet Regulatory Requirements</b>                           | Strive to Achieve 100% Permit Compliance in Air, Water, Land, and Other Regulations | Product Quality<br>Stakeholder Understanding and Support<br>Community Sustainability |
|  | Strive to Minimize the Number of Sanitary Sewer Overflows (SSOs)                    | Infrastructure Strategy and Performance  |
| <b>Goal 3 — Be a Fiscally Sound and Effective Water Sector Utility</b>           | Conduct Long Range Financial Planning   | Financial Viability  |
|  | Manage Costs  | Enterprise Resiliency<br>Operational Optimization                                    |
| <b>Goal 4 — Develop and Retain a Highly Trained and Innovative Workforce</b>     | Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels | Employee and Leadership Development  |
|  | Enhance Relationship with Employees and Bargaining Units                            | Employee and Leadership Development<br>Stakeholder Understanding and Support         |
|  | Meet or Exceed Industry Safety Standards  | Employee and Leadership Development  |
| <b>Goal 5 — Maintain a Reliable Infrastructure</b>                               | Manage Assets Optimally Throughout Their Lifecycle                                  | Infrastructure Strategy and Performance<br>Enterprise Resiliency                     |
|  | Facilitate Long-Term Capital Renewal and Replacement                                | Infrastructure Strategy and Performance  |
|  | Protect District Personnel and Assets from Threats and Emergencies                  | Enterprise Resiliency  |
| <b>Goal 6 — Embrace Technology, Innovation, and Environmental Sustainability</b> | Augment the Region’s Water Supply   | Water Resource Sustainability  |
|  | Evaluate Business Processes and Optimize Business Operations                        | Operational Optimization   |
|  | Reduce Reliance on Non-Renewable Energy   | Community Sustainability   |
|  | Encourage the Review and Testing of Promising and Leading Technology                | Operational Optimization   |

# A BUSY YEAR

## MAJOR AREAS OF ACCOMPLISHMENT

### Infrastructure

- Continued to meet critical infrastructure needs set forth in our Comprehensive Wastewater Master Plan (CWMP).
- Completed the Pleasant Hill-Grayson Creek Trunk Sewer Project, which installed about 10,000 feet of 18- to 24-inch trunk sewers.
- Completed two major treatment plant projects: the Pump and Blower Building Seismic Upgrades and the Cogeneration Optimization Project.

### Recycled Water

- Negotiated an MOU with CCWD and SCVWD to investigate the feasibility of water and wastewater agencies partnering to serve industrial customers with recycled water, freeing up a commensurate supply of drinking water.
- Continued to expand service of recycled water through partnerships with the Concord Community Reuse Project and Diablo Country Club.

### Optimizations

- Inducted into the Leading Utilities of the World, a global network of the most successful and innovative water and wastewater utilities.
- Presented “Optimization After Your Master Plan” at the California Water Environment Association (CWEA) conference.
- Honored with the CWEA Research Achievement of the Year Award for our Wet Scrubber Demonstration pilot.
- Identified improvements via an internal audit in procurement cards, petty cash, and payroll administration.

### Environmental Protection

- Achieved 20 consecutive years of 100% compliance with our wastewater discharge permit.
- Increased collection of HHW by 7% (140,594 pounds) and unwanted pharmaceuticals by 4% (729 pounds).
- Reduced SSOs by 36%, from 39 to 25.



# GOAL 1



## Provide Exceptional Customer Service

*Our customers do not get to choose their sewer service provider, but that is not something we take for granted. We strive to be a utility by whom they are proud to be served and one they would choose if they could.*

### STRATEGY 1 — Foster Customer Engagement and Awareness

#### 1. Invest in Business Process Changes and Technologies to Effectively Increase Access to District Information and Promote Customer Care, Convenience, and Self-Service

##### ACHIEVEMENTS

- Launched a new customer website designed to showcase our programs and services in a modern and organized way. The site integrates our social media to help keep the content current and reflects the level of service and transparency that our customers have come to expect from us.
- Redesigned our pollution prevention (P2) educational programs to reach more students with age-specific material that will help play a role in reducing pollution and supporting the local environment for decades to come.

##### ON THE HORIZON

- Train employees in electronic records and email management in FY 2018-19.
- Consider installation of a public-use computer as part of a lobby redesign in FY 2019-20 to allow our customers to serve themselves with requests such as recalling permit records, researching employment opportunities, and reading Board documents.
- Offer online permit processing, which will be available in about 2 years.

##### Spotlight on ...

### ENGAGEMENT

Our HHWCF 20th Anniversary Collection Drive was held from October 16 to 21, 2017, with a flagship event on the 18th to host community leaders, elected officials, sister agencies, and prior Central San Board Members.



• 7x ↑ in new users

• an average of 151 cars served per day

• 67% ↑ in cars served over the same week in 2017

#### 2. Increase Customer Understanding and Support for Key Issues Facing the District

##### ACHIEVEMENTS

- Televised important and timely Central San videos to tens of thousands of viewers, including a Fats, Oils, and Grease campaign that ran during Thanksgiving to promote the recycling of cooking oil at our HHWCF.
- Increased outreach for quarterly public tours, which in turn increased participation in our tours.
- Participated in community events, including Earth Day, the Joint Genome Institute Health and Safety Fair, Dose of Awareness Walk (for prescription drug disposal), and various Health Expos, providing outreach to thousands of customers.

# GOAL 1



## Provide Exceptional Customer Service

### ACCESSIBILITY



**34% INCREASE**  
IN FOLLOWERS  
ON SOCIAL  
MEDIA

For a total of 514 followers on Facebook and Twitter.

### EDUCATION



**18 COMMUNITY**  
**EVENTS**  
ATTENDED

Informational displays at multiple events promoting our environmental messages.

### TRANSPARENCY



**4 PUBLIC**  
**WORKSHOPS**  
HELD

To talk with concerned residents about upcoming work in their neighborhood.

### 3. Build and Maintain Relationships with Federal, State, and Local Elected Officials and Key Stakeholder Groups

#### ACHIEVEMENTS

- Facilitated Board Member meetings with State-elected officials, including Senators Dodd and Glazer and Assemblymember Baker.
- Assisted with Board Members' City Council presentations, Southern Area Briefings, and meetings with elected officials and stakeholder representatives throughout our service area.
- Honored with proclamations and certificates by federal, state, and local elected officials at our HHWCF 20th Anniversary Collection Drive flagship event. These recognitions commemorate our commitment to keeping hazardous waste out of the environment.

### 4. Provide High-Quality Customer Service

#### ACHIEVEMENTS

- Issued two rounds of customer surveys to benchmark customer feedback on programs and services.
- Claimed ownership of the HHWCF Yelp page, which has a 5/5 average rating with 16 reviews.
- Set up the Purchasing Requisition Ticket System to provide end-users with real-time information of requisition status and a customer satisfaction survey. The system also collects information that helps Purchasing to prioritize workload and establish metrics to be used to improve internal customer satisfaction levels.
- Held a public workshop for each collection system renovation project affecting a concentrated area. This supplements significant outreach to all impacted customers on an individual level, including phone calls, multiple notices mailed, and personal visits when needed.

#### ON THE HORIZON

- Perform additional research to assess customer awareness, satisfaction, desire to learn more about us, and methods of best receiving information.
- Offer Public Records Act training for staff, tentatively scheduled for winter 2018.
- Continue to grow educational programs for students.

#### Introducing ...

#### THE STARS OF OUR NEWEST STUDENT PROGRAM



As a public agency, we take our responsibility to educate the public seriously. These Water Warriors and Pipe Protectors were developed to promote our new early education program launching fall 2018, to get kids excited about their role in helping us keep our pipes and local waterways clean, by helping them connect how their behavior impacts the environment.



# GOAL 1



## Provide Exceptional Customer Service

### STRATEGY 2 — Improve Interdepartmental Collaboration

#### 1. Foster Employees' Understanding of District Operations and Their Role in Our Success

##### ACHIEVEMENTS

- Added monthly features from Safety, Human Resources (HR), and Information Technology (IT) to our employee newsletter, *Lateral Connection*.
- Reviewed 16 Board Policies for streamlining and updating by the Board's Administration Committee.

##### ON THE HORIZON

- Launch new, modernized intranet to give our employees easier access to information and more efficient communication tools.

##### Spotlight on ...

### PROACTIVE CUSTOMER SERVICE

For the third consecutive year since its inception, we opened our doors to the public via our citizens academy, **Central San Academy**.

We received interest from 60 people, and 39 participants came to the program. Through classroom learning, group activities, and open dialogue, the participants gained an understanding of the work we do and the challenges we face as an organization.

This class, which meets once a week for six weeks, is a unique opportunity for our staff and Board to engage directly with our customers and improve our business practices through their feedback. We are amazed every year at the level of interest we receive when we offer the course.



#### 2. Increase Internal Partnerships

##### ACHIEVEMENTS

- IT conducted workshops with each division District wide to inform vendor selection and process design work for the upcoming replacement of our enterprise resource planning (ERP) system, to ensure the outcome of this major project meets the needs of the entire organization.
- Held 9 meetings of the IT Leadership Committee to obtain feedback from end-user representatives to confirm our technology fits our business needs.
- Continued meetings of multi-divisional teams to execute projects in the CWMP and identify areas of potential applied research and development.
- Began implementation of project management information system (PMIS), e-Builder®, for improved coordination to track engineering projects.
- Held 6 Administrative Support Forum meetings for administrative support staff District wide to discuss issues and provide feedback on upcoming initiatives.

# GOAL 1



## Provide Exceptional Customer Service – How Are We Doing?

| Metric   | Target                     | Performance                     |  |
|--|----------------------------|---------------------------------|--|
| Average onsite response time for collection system emergency calls, during working hours | <20 minutes                | 35.25 minutes                   |  |
| Average onsite response time for collection system emergency calls, after hours          | <30 minutes                | 37.75 minutes                   |  |
| Average customer service rating for emergency calls                                      | ≥3.8 out of 4.0            | 3.96 out of 4.0                 |  |
| Average customer satisfaction rating on construction projects                            | >95%                       | 94.25%                          |  |
| Average customer satisfaction rating on permit counter interactions                      | >95%                       | 96%                             |  |
| Number of students served by our education programs                                      | >2,200 students per year   | 3,443 students                  |  |
| Number of District employees attending annual customer service training                  | ≥50% of all District staff | 100% of staff due for training* |  |
| Number of participants on treatment plant tours  | >150 participants per year | 262 participants                |  |
| Number of participants at speaker bureau presentations                                   | >400 participants per year | 567 participants                |  |
| Number of students attending citizens academy  | >30 participants           | 39 participants                 |  |

\*Training is held once a year only for new employees hired in the previous calendar year. 100% of the 15 employees (5.5% of all District staff) who were due for the training attended.

| Legend |                               |   |
|--------|-------------------------------|---|
|        | Target met                    | Performance met or exceeded the target  |
|        | Target not met / Stretch goal | Performance fell short of the target, which is a stretch goal because <ul style="list-style-type: none"> <li>• Current and past performance is not within reach of the target, and/or</li> <li>• Performance is affected by circumstances out of our control</li> </ul> |
|        | Target not met                | Performance fell short, but within reach, of the target   |



# GOAL 2



## Strive to Meet Regulatory Requirements

*Our core service is treating wastewater and returning it to the environment, whether it is discharging it into Suisun Bay or redistributing it to our customers as recycled water. We work hard to ensure that our product is safe and our operations have a minimal impact to the environment.*

### STRATEGY 1 — Strive to Achieve 100% Permit Compliance in Air, Water, Land, and Other Regulations

#### 1. Renew Treatment Plant National Pollutant Discharge Elimination System (NPDES) Permit, which Expires on March 31, 2017

##### ACHIEVEMENT

- This Initiative was completed during the last fiscal year, when staff successfully renewed the permit. The renewed permit was effective on June 1, 2017 and expires on May 31, 2022.

#### 2. Meet Existing Regulations and Plan for Future Regulations

##### ACHIEVEMENTS

- Achieved 20 consecutive years of 100% compliance with our wastewater discharge permit (see below).
- While we received 3 total Notices of Violation (NOVs) of our air permit for Reportable Compliance Activity from the Bay Area Air Quality Management District, the District has a project scheduled to resolve the issue with the installation of new wet scrubber technology.

#### 3. Foster Relationships with Regulatory Agencies

##### ACHIEVEMENTS

- Staff actively engaged with local, state, and federal regulatory agencies to help ensure compliance with laws and regulations, including actively participating on Bay Area Clean Water Agencies (BACWA) Committees.
- Lori Schectel, our Environmental & Regulatory Compliance Division Manager, has been elected BACWA Chair for FY 2018-19. She is the BACWA Board representative to the Summit Partners, which consists of other agencies similar to BACWA.

#### Spotlight on ...

### CONSISTENCY

The National Association of Clean Water Agencies (NACWA) represents public wastewater and stormwater agencies nationwide and advocates on legislative, regulatory, and legal issues.

Their Peak Performance Awards acknowledge excellence in permit compliance. Platinum Awards are the highest award category, recognizing 100% compliance with permits over a consecutive five-year period.

Central San achieved this five-year period four times over and will officially be receiving the “Platinum 20” Award at NACWA’s Utility Leadership Conference in July 2018, recognizing 20 consecutive years of permit compliance, as of the 2017 calendar year. With this recognition, we join an elite group of only 23 wastewater treatment agencies across the nation maintaining a streak of at least 20 years.



## GOAL 2



### Strive to Meet Regulatory Requirements

#### 4. Monitor and Track Proposed and Pending Legislation and Regulatory Changes That May Impact District Operations

##### ACHIEVEMENTS

- Continued to analyze and present priority legislation to the Board for action.
- Remained active in our knowledge-sharing professional associations to keep our fingers on the pulse of the industry and best represent the interests of our stakeholders.
- Provided two panel presentations at the California Association of Sanitation Agencies (CASA) Conference on Communications and Engineering.
- Emily Barnett, our Communication Services & Intergovernmental Relations Manager, is now Vice Chair of the newly-upgraded CASA Communications Committee, as well as a member of the California Special Districts (CSDA) Legislative Committee.

*We have made it a priority to plan for future regulations to ensure that Central San is making the right investments for our customers now and in the future.*

**- Jean-Marc Petit,  
Director of  
Engineering and  
Technical Services**

#### 5. Actively Manage Greenhouse Gas (GHG) Emissions in the Most Cost-Effective and Responsible Manner

##### ACHIEVEMENTS

- Passed the California Air Resources Board (CARB)'s verification in July 2017 with an internal verification report issued in August 2017.
- Maintained calendar year 2017 GHG emissions below 25,000 metric tons of CO<sub>2</sub>e.
- Submitted the annual GHG emission inventory to CARB in April 2018, in addition to compiling internal monthly GHG emission inventory updates.

#### STRATEGY 2 — Strive to Minimize the Number of SSOs

##### 1. Complete the Collection System Scheduled Maintenance on Time and Optimize Cleaning Schedules to Improve Efficiencies

##### ACHIEVEMENTS

- Reduced SSOs by 36%, from 39 to 25.
- Continued to use Cityworks® computerized maintenance management system (CMMS) to optimize cleaning schedule and eliminate the use of paper maps.
- Cleaned 772 miles of sewer lines.

##### 2. Continue the Pipeline Condition Assessment and Cleaning Quality Assurance Program Using the System-Wide Closed-Circuit Televising (CCTV) Program

##### ACHIEVEMENTS

- Televised 3,557 sewer lines to record conditions and help schedule future maintenance.
- Performed quality assurance / quality control (QA/QC) on 470 sewer lines.
- Continued to utilize IT Pipes® software to record and consolidate CCTV recordings and data.



# REGULATORY ACTIONS

## VIGILANT AND PROACTIVE

### Tests and Inspections

- From 8,564 samples, our in-house laboratory staff either managed or analyzed 35,000 analytes, including metals, toxic organic compounds, and conventional pollutants.
- Environmental Compliance staff performed 12,888 pre-treatment inspections to ensure businesses are practicing proper disposal of waste into our system.



### Nutrient Limitations and Constituents of Emerging Concern (CECs)

- While nutrient reduction and CECs, such as microbeads from personal care products, are not currently part of existing regulations, we are working with other agencies and regulators to study whether additional treatment processes will be needed in the future.
- By keeping these factors in mind, we can plan to have enough space in the plant to accommodate removal technologies if needed.



### Unique Challenges

- A growing service area population
  - ◇ Partially due to our proximity to both San Francisco and Silicon Valley, we have seen a steady increase in our number of customers. This creates the need for capacity and infrastructure upgrades to account for additional wastewater and wet weather flows.
- The only multiple hearth furnace left in California
  - ◇ We are working on diversifying our solids handling and resource recovery options to ensure we will be able to handle solids reliably. In addition, we may be able to recover valuable resources from the solids, such as energy or nutrients.
  - ◇ We are investing in modern, more efficient air pollution control equipment and are looking into additional technologies that may be required in the future.



# GOAL 2



## Strive to Meet Regulatory Requirements — How Are We Doing?

| Metric   | Target   | Performance                           |  |
|--|--|---------------------------------------|--|
| NPDES compliance   | Zero violations                                | Zero violations                       |  |
| Title V compliance   | Zero violations                                | Three (3) violations*                 |  |
| Recycled Water Title 22 compliance   | Zero violations                                | Zero violations                       |  |
| Sanitary sewer overflows (SSOs)  | <3.0 spills per 100 miles of pipeline          | 1.65 spills per 100 miles of pipeline |  |
| Spills to public water   | <3   | 1                                     |  |
| Percent of spills <500 gallons   | >95%   | 87.5%                                 |  |
| Pipeline cleaning schedules completed on time                                  | >95%   | 97%                                   |  |
| Pipeline cleaning QA/QC  | On ≥3% of pipelines cleaned on an annual basis | 2.8%                                  |  |
| Pipeline cleaning QA/QC passing rate   | >98%   | 88.9%                                 |  |
| Annual source control (environmental compliance) inspections completed on time | 100%   | 100%                                  |  |

\* The District has a project scheduled to resolve the issue with the installation of new wet scrubber technology.



# GOAL 3



## Be a Fiscally Sound and Effective Water Sector Utility

*We are sensitive to the fact that our customers reside in one of the most expensive areas to live in the United States. Sewer service is a basic human need, and we strive to provide it at a responsible rate. We do this by exercising financial discipline to fund our daily operations and necessary infrastructure improvements.*

### STRATEGY 1 — Conduct Long-Range Financial Planning

#### 1. Ensure Rate Structure is Consistent with Cost-of-Service Principles

##### ACHIEVEMENTS

- Completed staff review of rates and fees, which found no issues.
- Rates and Fees were approved by the Board on June 7, 2018.
- Collected flow and square footage data for mixed-use businesses, which is now being analyzed to determine if any modifications are needed to the rate structure.

##### ON THE HORIZON

- Present new proposed mixed-use rate structure in second quarter of FY 2019-20.

#### 2. Improve the Application and Processing of Capacity Fees for Consistency across User Classes

##### ACHIEVEMENTS

- Completed Capacity Fee Review of 60 businesses with patio dining.
- New procedure to calculate patio dining capacity fees was approved by the Board in May 2018.

#### 3. Develop a Long-Range Debt Management Policy

##### ACHIEVEMENTS

- Debt Management Policy was adopted by the Board in September 2017.
- Selected PFM as our financial advisor.
- Commenced work on a capital financing strategy which includes consideration of various debt types, including State Revolving Fund.
- Established a pension pre-funding trust for pension and other post-employment benefits (OPEB) and funded it with \$5.36M.
- Fully funded the OPEB-actuarially-determined contribution and paid an additional \$2.5M to further fund the unfunded liability.

##### ON THE HORIZON

- Refinance existing debt to finance capital improvements.
- New money bond offering targeted for first half of FY 2019-20.



#### 4. Develop Alternatives for New Revenues and Funding Sources (i.e., Interagency Agreements, Services, and Recycled Water)

##### ACHIEVEMENTS

- Held meetings with Mt. View Sanitary District, City of Concord, and City of Clayton to review potential services the District could provide, such as hydraulic modeling, combining capital projects to achieve economy of scale on pricing, development of Sanitary Sewer Management Plan, and sewer service billings.

# GOAL 3



## Be a Fiscally Sound and Effective Water Sector Utility

### STRATEGY 2 — Manage Costs

#### 1. Perform Targeted Audits of Critical/High-Risk Functions or Processes

##### ACHIEVEMENTS

- Completed internal bottom-up risk inventory.
- Conducted targeted audit work in 3 areas: procurement cards, payroll, and petty cash.
- Initiated external review of Laboratory procedures.
- Began scoping for work on revenue controls (completed risk assessment).
- Drafted internal audit plan for FY 2018-19.

##### ON THE HORIZON

- Issue a Request for Proposal (RFP) for internal audit services to complete additional top-down assessment, due to the departure of the Temporary Internal Auditor.
- Report the results of the Laboratory Contracting Audit.
- Perform audit on revenue controls.
- Switch to CalPERS for health insurance coverage for more cost-effective employee and retiree healthcare plans, which will provide the same coverage at a reduced cost to Central San through membership in a larger risk pool.

#### Spotlight on ...

#### COST-SAVING INNOVATION

Staff completed a \$1M **Wet Scrubber Demonstration Pilot**, which confirmed the viability of new wet scrubber technology to meet existing Title V and Clean Air Act 129 limits, as well as current and potential future emission requirements. This was a collaborative, multi-divisional effort whose findings informed design criteria for the Solids Handling Facility Improvements Project and resulted in an estimated \$14M of savings for that project.

**WINNER** of San Francisco Bay Area and State-Wide  
CWEA Engineering and Research –  
Research Achievement of the Year Award



#### 2. Perform Optimization Studies of Treatment Plant and Field Operations to Reduce Costs

##### ACHIEVEMENTS

- Saved an estimated \$14M on the Solids Handling Facility Improvements capital project through findings made by the Wet Scrubber Demonstration Pilot (see above).
- Improved resiliency against ultraviolet disinfection bypass events by installing shutdown-delay timers and enhancing the outlet gate logic.
- Piloted sludge blanket detectors in the primary sedimentation basins and secondary clarifiers.

# GOAL 3



## Be a Fiscally Sound and Effective Water Sector Utility

- Transitioned control of the furnace induced draft fan from an obsolete local controller to a modern programmable logic controller.
- Enhanced furnace oxygen control by improving automatic rate control of the air ports for Hearth No. 10.
- Implemented cogeneration British thermal unit control to save energy and simplify operation.
- Saved \$50,000 by purchasing hardware for the Input/Output Replacement Project at a discounted rate.
- Streamlined and cleaned the Dynac historian server to relieve storage space.
- Began utilizing Cityworks® work orders to track the Control System group's work in order to better meet deadlines, collect histories on assets, and coordinate efforts with other staff.
- Repaired two rodder assemblies in house, which reduced the downtime for the vehicle from 4 weeks to 2 weeks per truck. Factoring in labor costs, we saved \$8,000 per truck by doing this work in our own Vehicle Shop. In total, for two rodgers, we saved \$16,000 and one month of downtime for the truck.
- Adopted the Uniform Public Construction Cost Accounting Act (UPCCAA), which will be in effect on a pilot basis starting September 1, 2018. The UPCCAA will allow informal bidding procedures for construction contracts of \$45,001 to \$175,000. For simpler, lower-cost projects, this has the potential to significantly reduce the administrative costs of bidding and allow for faster project award, while retaining a competitive process and containing project costs.

### ON THE HORIZON

- Formalize a District-wide optimizations program, including the commitment of each division to optimize at least one aspect of their operations in the upcoming fiscal year.

### 3. Evaluate and Implement Risk Management Practices to Minimize Loss

#### ACHIEVEMENTS

- Used lessons learned from the 2017 Winter Storms, including Miner Road sinkhole in Orinda, to identify ways to improve cost recovery.
- Debriefed on the potable water contamination event which affected our Martinez offices and plant to improve future response and remedy implementation.
- Handled four overflow claims at an average cost of \$17,400 per overflow. Out of the four total claims, one was moderately large. Without that claim, the average cost per overflow would have been \$4,700.

### ON THE HORIZON

- Develop risk mitigation measures, quantify inherent and residual risk levels, and consider development of an enterprise risk management program, where risks can be centrally monitored.



#### COST SAVINGS



**\$297,130**  
IN BENEFITS  
SAVINGS

From HR-negotiated rate decreases of 5% from Kaiser Permanente and 4% from Delta Dental.

#### RISK MITIGATION



**OVER 70 RISKS**  
IDENTIFIED AND  
CATALOGUED

These risks are candidates for internal auditing and entry into a potential Enterprise Risk Management program for tracking.

# GOAL 3



## Be a Fiscally Sound and Effective Water Sector Utility — How Are We Doing?

| Metric   | Target   | Performance |   |
|--|--|-------------|---|
| Standard and Poor's credit rating                          | AAA  | AAA         | ✓ |
| Debt service coverage ratio                                | >2.0x  | 8.91        | ✓ |
| Maintain service affordability                             | Sewer Service Charge less than median of Bay Area agencies | Target Met  | ✓ |
| Actual reserves as a percentage of target                  | 100%   | 100%        | ✓ |
| Operating expenditures as a percentage of operating budget | >90%   | 94.57%      | ✓ |
| Workers' compensation experience modifier                  | <1.0   | .71         | ✓ |
| Return to Work   | Provide modified duty for >80% of occupational injuries    | 83.33%      | ✓ |
| Self-insurance reserves as a percentage of target          | 100%   | 100%        | ✓ |



# GOAL 4



## Develop and Retain a Highly Trained and Innovative Workforce

*Without our staff, Central San is simply a network of pipes, buildings, and equipment. It takes a talented and resourceful workforce to perform the wide range of services we offer, and we believe in making an investment in our people to build them for success and encourage them to see their role at Central San as a career, not just a job.*

### STRATEGY 1 — Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels

#### 1. Assess, Develop, and Implement District-Wide Training Needs

##### ACHIEVEMENT

- Continued to work on consolidating training databases, including consideration of a learning management software, to develop a system for accurate tracking of all District training, including Safety, HR, IT, Plant Operations, outside conferences, consultant trainings, and more.

##### ON THE HORIZON

- Issue RFP for a Training Coordinator. This consultant will develop and implement training plans for each business section and employee classification.

#### 2. Develop and Train Our Future Leaders

##### ACHIEVEMENTS

- Began the second Supervisory Academy in March 2018, with 21 participating employees expected to graduate in September 2018.
- Finished the second Management Leadership Academy, with 20 employees graduating in December 2017.
- Paired 6 mentees with mentors for the calendar year 2018 Mentorship Program.

##### ON THE HORIZON

- Revamp the performance evaluation system for employees to be less cumbersome and more meaningful, which will increase the likelihood that performance evaluations will be completed on time and in a way which coaches employees toward growth.

#### Spotlight on ...

### MENTORSHIP

As part of our succession planning efforts to train the future leaders of Central San, we offer a diverse set of leadership development opportunities to all levels of our staff. Our **Mentorship Program**, in its second year of operation, is the most unique in that it is project based. Mentees are paired with a mentor, usually a member of the Management Team or Executive Team, for six-month rotations.

As part of the program, mentees are able to do the following:

- Build relationships outside their workgroup;
- Complete a project within the realm of their mentor's responsibilities;
- Present their project to the Executive Team and Board; and
- Gain
  - ◊ Exposure to Central San leadership,
  - ◊ Experience in public speaking,
  - ◊ Knowledge of areas of our operation outside their normal roles,
  - ◊ A chance to explore possible career paths,
  - ◊ Project management skills, and
  - ◊ A mentor whose guidance extends beyond the six-month rotation.



# GOAL 4



## Develop and Retain a Highly Trained and Innovative Workforce

### STRATEGY 2 — Enhance Relationships with Employees and Bargaining Units

#### 1. Cultivate a Positive Work Culture and Promote Teamwork

##### ACHIEVEMENTS

- Cross-divisional teams collaborated on several major projects, including the new external and internal websites, the HHWCF 20th Anniversary Collection Drive, the P2 Awards, the Wet Scrubber Demonstration pilot, and business process mapping in anticipation of the ERP replacement.
- Recognized the CWEA San Francisco Bay Section Award winners – Sean Sullivan, Electrical and Instrumentation Technician of the Year, and Bernard Martinez, Mechanical Technician of the Year, at the Plant Operations and Maintenance departmental meeting.

#### 2. Sustain and Grow Collaborative Relationships with the Labor Bargaining Units

##### ACHIEVEMENT

- General Manager lunches with the bargaining representatives and Labor Management Committee Meetings between District and union representatives continue at the union’s discretions but are currently on hold and will resume after labor negotiations.

### STRATEGY 3 — Meet or Exceed Industry Safety Standards

#### 1. Achieve Consistent Improvement on State of California and Bay Area Industry Injury Rates

##### ACHIEVEMENTS

- Continued to identify accident causation and incorporate safety training to target identified areas.
- Safety Statistics are provided to the Safety Team, who relay the information back to their departments.

#### 2. Enhance the Safety Culture through Improved Training and Communications

##### ACHIEVEMENTS

- Began distributing the California Occupational Safety and Health Administration’s *Cal/OSHA Reporter* weekly via email to all District staff.
- Conducted electrical safety training in response to issues identified during capital projects construction.
- Held targeted trainings based on need demonstrated by statistical review of incidents and including the following:
  - ◇ Back Safety
  - ◇ Hand Safety
  - ◇ Slips, Trips, and Falls.

#### SELF-IMPROVEMENT



**6 BROWN BAG SEMINARS OFFERED**

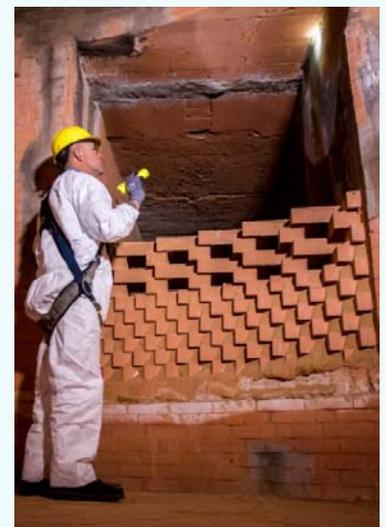
Covering topics related to customer service, conflict resolution, teamwork, ethics, and more.

#### INSTRUCTION



**84 SAFETY TRAININGS HELD**

On 34 different topics including Ergonomics, Driver Safety, and Confined Space Training.



# DEVELOPING OUR GREATEST ASSET

## EDUCATING, COUNSELING, COACHING

### Succession Planning

- Our dedicated, multi-divisional members of the Succession Planning Committee identify critical functions at risk in the event of unforeseen employee departure.
- The Committee works with Management to develop a plan to mitigate those risks, including cross-training employees and developing standard operating procedures.

### Leadership Academies

- The second Supervisory Academy is in progress with 21 participating employees. The class includes presentations, exercises, and opportunities for employees to connect with other up-and-comers at Central San.
- The second Management Academy was completed in 2018, with 20 graduating employees. The curriculum included trainings, discussions, and a 360-degree analysis of each participant's leadership style. At the end of the course, participants created an individual action plan to guide them in the continuing development of their leadership skills. The Management Academy is held in alternating years with the Supervisory Academy.

### Coaching

- The Executive Team and Management Team are offered one-on-one coaching sessions and team-building.

### Other Educational Opportunities

- Tuition reimbursement up to a certain amount is available for employees to further their education for the purpose of improving their on-the-job performance.
- Membership in the Toastmasters public speaking development program is reimbursed.
- Value-added conferences and offsite trainings are offered to employees. Upon returning to work, employees often share what they have learned with their peers.

### Internship Program

- Interns are with us year round to gain on-the-job learning with projects in almost every division.



# GOAL 4



Develop and Retain a Highly Trained and Innovative Workforce – How Are We Doing?

| Metric  | Target   | Performance             |  |
|---|--|-------------------------|--|
| Average time to fill vacancy (from request to hire)   | <60 days   | 68 days                 |  |
| Percentage turnover rate at or below industry average | <8.8%*   | 4.8%                    |  |
| Average annual training hours per employee            | 7.5 hours (averaged per employee in FY 2016-17)        | 27.4 hours per employee |  |
| Actual versus budgeted usage of tuition reimbursement | >80%   | 60.3%                   |  |
| Performance evaluations completed on time             | 100%   | 49%**                   |  |
| Employee injury and illness lost time incident rate   | <7.4 (BLS California Sewage Treatment Facilities Rate) | 4.1                     |  |

\*Median of aggregate data for the employee turnover indicator for combined water/wastewater utility in *2017 American Water Works Association Utility Benchmarking*.

\*\* HR is developing an enhanced performance evaluation system which makes the process clearer. We expect to see more evaluations being completed on time as a result.



# GOAL 5



## Maintain a Reliable Infrastructure

While we have mapped a plan to replace our assets as they reach their end of useful life, we also make an effort to rehabilitate as much of our equipment as possible to maintain its level of service, save the cost of replacement, and meet current and future regulatory requirements.

### STRATEGY 1 — Manage Assets Optimally throughout Their Lifecycle

#### 1. Implement Board-Approved Recommendations from the CWMP and Condition Assessment

##### ACHIEVEMENTS

- Advertised for consultant engineering services for the Energy and Blower Replacement Project.
- Launched new Treatment Plant Portal internal website for employees to easily access information and documents for plant and pump station assets, infrastructure, and related projects.
- Performed condition assessments on Primary Sedimentation Tanks 1-4 and Pre-Aeration Tanks 1 and 2.

##### ON THE HORIZON

- We will be hosting a CASA Conference on Asset Management in September 2018.

#### 2. Update the Consequence of Failure Matrices

##### ACHIEVEMENT

- This initiative was completed in FY 2016-17. As part of the CWMP, the consequence of failure scores were determined for gravity sewers, pumping stations, and forcemains, and the matrix for the plant was updated.

#### 3. Implement the Reliability Centered Maintenance (RCM) Program

##### ACHIEVEMENTS

- Continued development of the RCM Program, which established a framework to improve maintenance efficiency and functional reliability of assets.
- Completed Experience Centered Maintenance analysis (ECM) on the Primary Tanks.
- Completed Defect Elimination analyses on Primary Tank equipment, which resulted in increased equipment integrity and reliability, with the installation of the following:
  - ◇ Low-point drains at several equipment connection points.
  - ◇ Primary Tank Flight monitoring system.
- Completed major work:
  - ◇ Furnace No. 1 and No. 2 turnaround jobs.
  - ◇ 3-year condenser cleaning and tube thickness test for Aeration Units 1 and 2.
  - ◇ Preventive maintenance (PM) and replacement of numerous valves and service equipment during a planned steam system outage.
  - ◇ Annual maintenance on the Filter Plant's filters, Dissolved Air Flotation (DAF) Tank, medium voltage variable frequency drives, control system uninterruptible power supply, auxiliary boilers, Primary Sedimentation Tanks 1-4, and Pre-Aeration Tanks 1 and 2.
  - ◇ Designed and fabricated equipment for DAF Tank Center Shaft Gearboxes.
  - ◇ Inspected outfall inclinometer.
  - ◇ Began new Headworks screenings PM task.

##### ON THE HORIZON

- Complete the ongoing Ultraviolet System and Primary System ECM analyses.



### Predictive and Preventive Maintenance

Our skilled in-house service teams conduct regular maintenance on our aging \$4 billion infrastructure system. This often presents problem-solving opportunities to our staff, such as being unable to order parts and having to manufacture them ourselves. Despite these challenges, our dedicated team ensures that treatment service is rarely interrupted.

# GOAL 5



## Maintain a Reliable Infrastructure

### 4. Manage and Maintain Current Equipment and Vehicle Fleet to Provide Maximum Value

#### ACHIEVEMENTS

- 100% uptime for vehicles and equipment.
- Fully implemented automatic vehicle location (AVL) on all District vehicles and enrolled in a program that saves us money and time on having our vehicles smog checked (see below).

#### Spotlight on ...

#### LEVERAGING DIAGNOSTICS

This year, we fully implemented the Verizon Network Fleet® AVL and Maintenance Program, which offers many benefits:

- Improves efficiency of dispatching our field crews, which decreases our response time to emergencies
- Reduces fuel consumption
- Tracks vehicle diagnostic reports to create proactive maintenance plans, which helps control repair costs and reduce downtime.



In addition, we have enrolled in the **Bureau of Automotive Repairs Smog Program**, so we can have our vehicles' smog requirements waived by sending in the vehicle data collected through the AVL program. At a cost of \$50 per vehicle to smog, we now save \$4,100 per year on our 83 vehicles, in addition to the staff time saved by no longer having to send 2 employees to drop off the vehicle, come back to CSO, and pick it up later in the day.

### STRATEGY 2 — Facilitate Long-Term Capital Renewal and Replacement

#### 1. Integrate the Data from the Asset Management Program into the Analysis of Long-Term Capital Improvement Needs Based on the Board-Approved CWMP

#### ACHIEVEMENTS

- Received award from Cityworks® for Excellence in Departmental Practice for our implementation of the CMMS in the CSO and Plant Maintenance Divisions.
- Completed pipeline replacements as recommended by the CWMP and in coordination with city or county paving projects.
- Replaced 6.5 miles of pipeline.

#### 2. Implement Business Case Evaluations, including Life-Cycle Cost, into Proposals for New Capital Improvement Program Projects to Determine the Most Cost-Effective Projects and Solutions for Projects That Were Not Identified in the Approved CWMP or the Capital Improvement Budget

#### ACHIEVEMENT

- Implemented business case evaluations in planning the following projects: Solids Handling Facility Improvements, Pumping Station Upgrades, Plant Energy Optimization Project, Solids Conditioning Building Chiller Replacement, and Server Room Relocation.

# GOAL 5



## Maintain a Reliable Infrastructure

### STRATEGY 3 — Protect District Personnel and Assets from Threats and Emergencies

#### 1. Enhance Our Capability to Mitigate, Prepare, Respond, and Recover from Emergencies

##### ACHIEVEMENTS

- Completed Vital Records and Essential Vendors sections in the Continuity Plan.
- Updated a portion of the Local Hazard Mitigation Plan five-year update, which was approved by the California Governor's Office of Emergency Services and Federal Emergency Management Agency.
- Transitioned email and Office365® to be fully cloud based.
- Retained a firm to conduct the move of IT equipment for relocation of the server room.
- Received the Excellence in IT Practices Award from the Municipal Information Systems Association of California, which is comprised of public agency IT officials throughout the state. The award recognizes outstanding governance and operation practices, including budgeting, strategic planning, disaster preparation and recovery, professional development and training, project management, customer satisfaction, and security. Central San was only 1 out of 5 special districts to receive the award, which recognized the last 2 years of the IT Division's constant efforts to protect our technology infrastructure.

##### ON THE HORIZON

- The new server room, including installation of new fiber, is expected to be operational in June 2019.

#### 2. Evaluate and Implement Appropriate Improvements to Our Security Program to Meet New or Evolving Threats

##### ACHIEVEMENTS

- Contracted with a vendor to fly a security drone on a pilot basis, which gives us the ability to monitor areas security personnel may not be able to access as easily or quickly.
- Evaluated 20 facilities and completed a District-wide Vulnerability/Security Study, the implementation of which is underway.
- Completed the Security Assessment Master Plan and began implementation of recommendations, including developing a tracker.
- Established the multi-divisional Security Coordination Committee, which reviews ongoing projects.
- Replaced core network switch and network switches.
- Enhanced water quality testing procedures at our headquarters office for the potable water provided to employees at the Martinez offices and plant.
  - ◇ Laboratory staff trained with CCWD on testing procedures and added E. coli and turbidity to the standard total coliform tests.
  - ◇ Laboratory staff now perform regular tests on 16 points throughout the campus.

##### ON THE HORIZON

- Continue implementation of Vulnerability/Security Study and Security Assessment Master Plan recommended enhancements.
- Replace the air-gap tank to improve the safety of the potable water system for our Martinez campus.
- Pilot a dual-factor authentication software to add an extra layer of security to the accessibility of our network through VPN.



# GOAL 5



## Maintain a Reliable Infrastructure – How Are We Doing?

| Metric   | Target  | Performance                    |  |
|--|---|--------------------------------|--|
| Safety work orders completed on time                               | 100%  | 98%                            |  |
| Regulatory Title V work orders completed on time                   | 100%  | 100%                           |  |
| Planned treatment plant preventive maintenance completed on time   | >95%  | 88%                            |  |
| Complete implementation of Infomaster®                             | By first quarter of 2017  | Target met in FY 2016-17       |  |
| Miles of pipeline replaced   | >0.5% of assets<br>(7.6 miles per year for the next five years, starting in FY 2017-18) | 0.43% of assets<br>(6.5 miles) |  |
| Capital expenditures as a percentage of capital budgeted cash flow | >90%  | 85%                            |  |
| Information systems uptime (excluding planned maintenance)         | 100%  | 99.5%*                         |  |
| Data backup and recovery   | Zero lost data  | Zero lost data                 |  |

\*Outage on December 31, 2017 resulting in approximately two days of partial downtime.

Treatment Plant side network was unaffected and outage was during non-business hours with minimal impact.



# GOAL 6



## Embrace Technology, Innovation, and Environmental Sustainability

In today's world, technology is being developed at an unprecedented pace. We encourage our staff to test promising methods and find innovations that will help our environment, save money, and increase operational efficiencies.

### STRATEGY 1 — Augment the Region's Water Supply

#### 1. Explore Partnering Opportunities (e.g., CCWD and East Bay Municipal Utility District)

##### ACHIEVEMENT

- Executed an MOU with CCWD and SCVWD to complete a preliminary feasibility evaluation of the Refinery Recycled Water Exchange Project.
- Continued working with the City of Concord to supply recycled water to their Concord Community Reuse Project, which is in development and could have the potential to provide recycled water to approximately 13,000 residential units and 8.4M square feet of commercial space over the next 30 years.

##### ON THE HORIZON

- Continue work on the preliminary feasibility evaluation for the Refinery Recycled Water Exchange Project.

#### 2. Develop a Satellite Recycled Water Facilities (SWRF) Program

##### ACHIEVEMENTS

- Continued assisting with development of the Diablo Country Club's (DCC) 0.4M gallons per day SWRF Demonstration Project, including completing the California Environmental Quality Act Initial Study, holding two Open House Community Input Meetings, and supporting DCC through the initial phases of their Design-Build procurement process.

##### ON THE HORIZON

- Continue to support DCC's Design-Build procurement process.
- Develop and execute the Operations and Property Transfer Agreement with DCC.
- Procure a consulting firm to act as Owner's Representative to assist Central San in the oversight of the progressive design, construction, and commissioning of the project.

### Spotlight on ...

#### RECYCLING WATER



11,140 visits were made to the Fill Station this year

This year, we thanked one of our dedicated residents with the Recycled Water Champion Award. He made more than **350 trips** to the Fill Station in FY 2016-17 alone, collecting more than 58,000 gallons of recycled water, and he is just one of the **2,335 people** who have used the Fill Station since it opened.

Every year, we produce about 600M gallons of recycled water, which can be used in place of drinking water for irrigation and industrial needs. Recent droughts and legislation have reminded us that water is a precious resource, which is why in 2014, we opened our **Residential Recycled Water Fill Station**, to provide up to 300 gallons of recycled water per trip to our customers at no additional cost. During the summer months of drought years, we give out an average of about 2.6M gallons per month.

We also operate a **Commercial Truck Fill Program** for licensed contractors to obtain recycled water for construction purposes such as grading, compaction, and dust control.

Our Recycled Water Champion



# GOAL 6



## Embrace Technology, Innovation, and Environmental Sustainability

### STRATEGY 2 — Evaluate Business Processes and Optimize Business Operations

#### 1. Perform Business Process Mapping and Re-Engineering

- Implemented the Intellitime® e-timekeeping system, eliminating paperwork and the associated potential for errors. The system allows employees to manage their timekeeping online, including submitting leave requests and timesheets, from a District computer, phone, or tablet.
- Analyzed and documented our current business processes and assessed our readiness for a new ERP. This identified opportunities for efficiencies in the targeted areas of Accounting, Asset Management, Benefits, Budget, Community Development and Permitting, Customer Billing, HR, Payroll, Personnel Recruitment, Procure to Pay, Capital Projects Planning, Risk Management, Treasury, and Property and Land Management.
- Issued an RFP for new ERP on schedule in June 2018.
- Implemented Dig Smart®, a ticket management software which automatically creates work orders in Cityworks®, to save time and improve the accuracy of the information being recorded for the approximately 20 Underground Service Alert service requests made to CSO every day.
- Completed implementation of Infoworks® hydrodynamic model and flow calibration.
- Started implementation of a new PMIS, e-Builder®, for Planning and Capital Projects.
- Simplified the Purchasing requisition approval process by establishing authorization levels based on supervisory position criteria, reducing the number of approval levels from 18 to 3.
- Implemented automatic notifications from Purchasing to project managers to ensure contract renewals are done in a timely manner.
- Began evaluating RFPs online, replacing a manual, labor-intensive process with a streamlined and fully automated process which creates reports to substantiate the evaluation committee's recommendation for award.



*Central San is an innovative industry leader in operational excellence and P2 programs; however, we will never cross the finish line. We are always looking for new technologies and efficiency measures to provide the highest level of service to our customers.*

**- Roger S. Bailey, General Manager**

# GOAL 6



## Embrace Technology, Innovation, and Environmental Sustainability

### ON THE HORIZON

- Update Purchasing Procedures, which will be easier for staff to understand and to implement.
- Leverage the feedback from the Purchasing Requisition Ticket System's internal customer satisfaction surveys to improve Purchasing's practices and customer satisfaction levels.
- Implement the new ERP. Full implementation is a significant undertaking and is expected to take approximately two years, with significant time needed from staff. The new ERP will modernize and optimize the way we do business, with eventual time savings in reduction of paperwork and inefficient processes, allowing staff to focus on more high-level work.
- Full implementation of e-Builder® expected by July 1, 2019.
- By repurposing a vacant Accountant position, a new Contracts Analyst position has been created, which will be dedicated to public works projects for more efficient contracting.

### STRATEGY 3 — Encourage the Review and Testing of Promising and Leading Technology

#### 1. Expand and Improve the Use of Mobile Computing and Communication Technologies

#### ACHIEVEMENTS

- Mobile devices were deployed to the Plant Maintenance crews for efficient work order access, access to shop drawings and asset histories, and other uses. CSO and Environmental Compliance also use tablets to perform their work in the field.
- Successfully piloted two new software programs to make the following processes electronic:
  - ◇ Conference room scheduling via a tablet mounted outside the conference room.
  - ◇ Sign-in log for visitors, which also takes pictures of our visitors and automatically alerts the Central San staff member that their visitor has arrived.
- Implemented iAuditor application to allow safety inspections to be conducted via cellphone or tablet.
- Began livestreaming Board Meetings to the lobby and web-accessible devices, allowing staff time to hear discussion on items of interest from their office.

### ON THE HORIZON

- Install webcams in conference rooms to conduct remote interviews and meetings.

#### ENERGY RECOVERY



**82% OF OUR ELECTRICAL ENERGY PRODUCED IN-HOUSE**

We purchase natural gas to fuel our cogeneration system. Thanks to a carbon monoxide catalyst that was installed in the system in November, we now produce even more of our own electrical energy relative to our total electrical load, and we expect to see this number increase during a full year's use of the catalyst.

#### EFFICIENCY



**30 TABLETS OUTFITTED TO TREATMENT PLANT STAFF**

iPads allow plant maintenance staff to access work orders and reference documents, such as shop drawings and repair histories, on site. Our CSO crews and Environmental Compliance inspectors also utilize mobile devices to conduct their work more efficiently.

#### TECHNOLOGY



**10 SMART BOARDS INSTALLED IN CONFERENCE ROOMS**

Utilizing touch-screen technology which combines a whiteboard and a monitor connected to a computer, smart boards are used to conduct more productive meetings, reduce paper handouts, and hold video conference calls and webinars.

# GOAL 6



## Embrace Technology, Innovation, and Environmental Sustainability

### 2. Continue Developing and Investing in Cost-Effective Innovation, Technology, and Applied Research and Development

#### ACHIEVEMENTS

- Completed the following pilots to inform the Solids Handling Facilities Project:
  - ◇ Wet Scrubber Demonstration Pilot.
  - ◇ Scrubber Water Treatment Pilot.
- Completed Lime Reduction Bench Testing, Wet Scrubber Liquid Testing, and Scrubber Water Bench Testing.
- Completed technical review of two innovative technologies: Aerobic Granular Sludge and Membrane Aerated Bioreactors.
- Presented at conferences on the following topics:
  - ◇ Migrating Legacy Applications into a Model-View Controller Framework.
  - ◇ Hydrothermal Processing of Wastewater Solids (HYPOWERS) Project.
  - ◇ Collection System Rehabilitation Spending.



#### ON THE HORIZON

- Our Scrubber Water Liquid Evaluation and Bench Testing (part of the Wet Scrubber Demonstration Pilot) pilot project abstract has been accepted for presentation at the Water Environment Federation Conference in October 2018.

### STRATEGY 4 — Reduce Reliance on Non-Renewable Energy

#### 1. Explore Opportunities for Self-Generation, Conservation, and Efficiency Based on the Board-Approved CWMP

#### ACHIEVEMENTS

- Completed construction of the Cogeneration Energy Optimization Project to increase energy efficiency and reduce emissions for the treatment plant.
- Started Phase 1 of a multi-agency coalition to test a hydrothermal resource recovery process for solids handling at Central San (HYPOWERS Project).
- Embarked on an innovative procurement process to develop a public-private partnership for the implementation of a Bioenergy Facility that would demonstrate a new solids handling technology that could postpone or eliminate the need for us to add anaerobic digestion in the treatment plant, while producing onsite renewable energy. After completing a year-long evaluation, it was determined that a suspected capacity limitation in our existing solids handling facilities was not an issue, so the procurement was terminated in May 2018. From this process, we learned that investing in Central San's existing facilities is the most economical approach for handling wastewater solids for the next 20+ years.

#### ON THE HORIZON

- Potential energy savings performance contract, in which a vendor could develop and implement a District-wide energy savings strategy.

# MULTIAGENCY PARTNERSHIPS

WORKING TOGETHER TO PROTECT THE ENVIRONMENT

## Refinery Recycled Water Exchange

Central San is working with CCWD and SCVWD to supply two oil refineries in our service area with recycled water. CCWD currently serves the refineries with high-quality surface water from the Central Valley Project. In short, through this exchange, we would supply recycled water to CCWD, who would send it to the refineries, and the foregone CCWD supply would be provided to SCVWD. The purposes of the exchange are the following:

- be beneficial to all parties
- improve water supply reliability
- serve as an innovative example of three agencies working together to protect our resources.

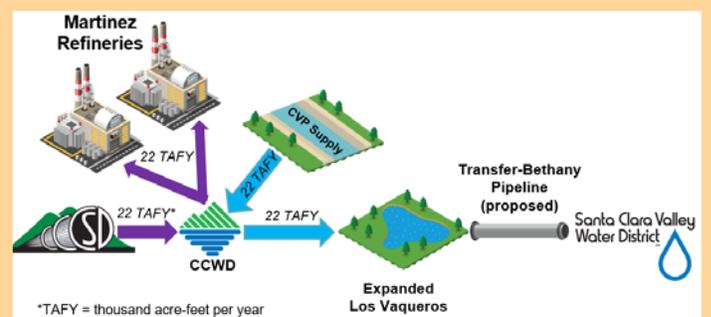
## Hydrothermal Bioenergy Pilot

We are part of the HYPOWERS bioenergy project team, which was awarded a \$1.2M Department of Energy grant to test an emerging hydrothermal resource recovery process for solids handling.

With water, temperature, and pressure, the process converts sludge into biocrude oil and natural gas in less than an hour with approximately 99% conversion of organics. Central San was selected as the location for the 3 ton per day pilot project because of our proximity to oil refineries, who are potential end-users of the recovered biocrude byproduct.

Phase 1, which entails pilot planning, design, and permitting, has begun. Phase 2 will be the construction and operation of the pilot.

We are proud to be a part of this multi-agency collaboration with the Water Environment & Reuse Foundation, Pacific Northwest National Laboratory, Geniefuel, Merrick & Co., Tesoro Corporation, MicroBio Engineering, SoCal Gas, and others.



# GOAL 6



Embrace Technology, Innovation, and Environmental Sustainability — How Are We Doing?

| Metric   | Target  | Performance              |  |
|--|---|--------------------------|--|
| Total gallons of recycled water distributed to external customers                    | >240M gallons per year                            | 219,093,357 gallons*     |  |
| Maximum Residential Recycled Water Fill Station customer wait time                   | 15 minutes  | <15 minutes              |  |
| Gallons of recycled water distributed at the Residential Recycled Water Fill Station | >14M gallons per year                             | 2,447,911 gallons*       |  |
| Gallons of recycled water distributed at the Commercial Truck Fill Program           | >4M gallons per year                              | 796,338 gallons*         |  |
| Kilowatt hours (kWh) of electricity produced   | >18M kWh per year (reported as a rolling average) | 20.1M kWh                |  |
| kWh of solar power produced at CSO and HHW   | >200 kWh per year (reported as a rolling average) | 282.3 kWh                |  |
| Pilot test new and promising technology  | >3 pilot tests or reviews per year                | 5 pilot tests or reviews |  |
| Present research papers and findings   | >3 papers per year                                | 4 papers                 |  |

\* Dependent upon mandatory drought restrictions and weather.



# LOOKING AHEAD

## EXECUTING THE FY 2018-20 STRATEGIC PLAN

### Beyond “Business as Usual”

Our first and foremost duty is to reliably and safely collect and treat wastewater to protect the public health of our community. To help us achieve that mission and simultaneously keep our rates competitive in the face of challenges, we operate by a few informal philosophies:

- **Use What You Have** — We apply corrective maintenance and perform studies to prolong the life of existing infrastructure as it ages and becomes unable to meet the changing regulatory needs.
- **Do More with Less** — For the second year in a row, we have kept our operating budget flat. Simultaneously, we look to double our capital budget so we can sustain our infrastructure and prepare it for the future.
- **Don’t Just Fix It; Improve It** — Our Plant Maintenance staff is undergoing a culture shift, exceeding their regular maintenance tasks by also asking themselves how they can do that work better.
- **Eyes on the Prize** — We strive to win awards, not just to give ourselves credit where it is due, but to encourage our staff to keep doing award-winning-level work.

### FY 2018-20 Strategic Plan

We designed the FY 2018-20 Strategic Plan in the spirit of the FY 2016-18 Strategic Plan, with a focus on continuous improvement, innovation, excellence, and leveraging technology to be more efficient. A few highlighted updates made to the FY 2016-18 Plan include the following:

- Adjusted metrics based upon past years’ performance to strive to meet stretch goals and challenge ourselves to do better
- Added 8 more metrics to help keep us accountable, for a new total of 58 metrics
- Updated components to reflect current priorities and practices.

As we begin our execution of the FY 2018-20 Strategic Plan, we look forward to proving time and time again to our customers that they are receiving the best service at responsible rates.



# ACRONYMS

## FOUND IN THIS DOCUMENT

|          |   |
|----------|---|
| AVL      | Automatic Vehicle Location                    |
| BACWA    | Bay Area Clean Water Agencies                 |
| BLS      | Bureau of Labor Statistics                    |
| CARB     | California Air Resources Board                |
| CASA     | California Association of Sanitation Agencies |
| CCTV     | Closed-circuit Televising                     |
| CCWD     | Contra Costa Water District                   |
| CEC      | Constituents of Emerging Concern              |
| CMMS     | Computerized Maintenance Management System    |
| CSO      | Collection System Operations                  |
| CWEA     | California Water Environment Association      |
| DAF      | Dissolved Air Flotation                       |
| DCC      | Diablo Country Club                           |
| ECM      | Experience Centered Maintenance               |
| ERP      | Enterprise Resource Planning                  |
| EUM      | Effective Utility Management                  |
| HHW      | Household Hazardous Waste                     |
| HHWCF    | Household Hazardous Waste Collection Facility |
| HR       | Human Resources                               |
| HYPOWERS | Hydrothermal Processing of Wastewater Solids  |

|        |   |
|--------|---|
| IT     | Information Technology                          |
| kWh    | Kilowatt hour                                   |
| M      | Million   |
| MOU    | Memorandum of Understanding                     |
| NACWA  | National Association of Clean Water Agencies    |
| NOV    | Notice of Violation                             |
| NPDES  | National Pollutant Discharge Elimination System |
| OPEB   | Other Post-Employment Benefits                  |
| P2     | Pollution Prevention                            |
| PM     | Preventive Maintenance                          |
| PMIS   | Project Management Information System           |
| QA/QC  | Quality Assurance / Quality Control             |
| RCM    | Reliability Centered Maintenance                |
| RFP    | Request for Proposal                            |
| SCVWD  | Santa Clara Valley Water District               |
| SSO    | Sanitary Sewer Overflow                         |
| SWRF   | Satellite Water Recycling Facility              |
| UPCCAA | Uniform Public Construction Cost Accounting Act |




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