

CENTRAL CONTRA COSTA SANITARY DISTRICT

FISCAL YEAR 2016-17
STRATEGIC PLAN
ANNUAL REPORT
SUMMARY OF
ACHIEVEMENTS



A MESSAGE FROM THE GENERAL MANAGER



On behalf of the Central Contra Costa Sanitary District (District), I am proud to present our accomplishments for Fiscal Year 2016-17 of our two-year Fiscal Year 2016-18 Strategic Plan. The Strategic Plan lays out the direction for the District and draws upon the six goals adopted by our Board of Directors and the Effective Utility Management framework. This approach has enabled the District to increase efficiencies, fulfill our mission, and continue in our role as stewards of the environment. The Plan includes 16 key strategies and 40 initiatives to address current and future challenges, and key performance metrics related to each goal. This report provides an

overview of the many achievements made by our dedicated and professional staff, who continually strive to uphold the District's Mission, Vision and Values.

Some of the highlights over the past year include continuing to achieve 19 years of total compliance with our wastewater discharge permit and successfully renewing our National Pollutant Discharge Elimination System Permit; completing the Comprehensive Wastewater Master Plan; implementing new software and hardware to improve operational efficiency, including the use of mobile devices in the field; implementing treatment plant operational efficiencies; hosting a large-scale, award-winning 70th Anniversary Open House Event; and successfully completing the second Central San Academy.

The District has built a strong culture of providing excellent service to our customers. We will continue with our commitment to the public and our customers to strive for excellence daily and to put our values of People, Community, Principles, and Leadership and Commitment first. As we move forward, we wish to acknowledge that these accomplishments would not be possible without the leadership and support of our Board of Directors and the continued support and confidence of our customers.

Overview of the Mission, Vision, Values, and Goals of the District

The Fiscal Year (FY) 2016-18 Strategic Plan draws upon the work accomplished under previous Strategic Plans. Many of the goals and strategies have remained the same. However, the initiatives have been updated to move the District on a continuous path forward as we strive to optimize operations, streamline processes, and look for innovative technology and methods to manage and contain costs. The Strategic Plan consists of six goals. Each of these goals has corresponding strategies and initiatives that are focused on completing the District's Mission and addressing challenges and opportunities on the horizon. In addition to the initiatives, key performance metrics are tracked to evaluate the factors that are critical to the success of the goals.

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
 - Community relationships
 - Celebrate our successes and learn from our challenges
- Community
 - Value water sector partners
 - Foster excellent community relationships
 - Be open, transparent and accessible
 - Build partnerships
 - Understand service level expectations
- Principles
 - Be truthful and honest
 - Be fair, kind and friendly
 - Take ownership and responsibility
- Leadership and Commitment
 - Work effectively and efficiently
 - Promote a passionate and empowered workforce
 - Encourage continuous growth and development
 - Inspire dedication and top-quality results

Effective Utility Management

The Effective Utility Management (EUM) framework is regarded as the industry standard for strategic planning and performance metrics monitoring. The EUM framework consists of ten attributes that describe desired outcomes that are applicable to wastewater utilities. The EUM served as the framework for developing the initiatives. The initiatives are aligned with our goals and one or more of the ten EUM attributes, ensuring that the District's priorities are in line with best management practices.



The following is a summary of the goals and strategies and their alignment with the EUM attributes.

Goal	Strategy	EUM Attribute
Goal 1 Provide Exceptional Customer Service	Foster Customer Engagement and Awareness	Customer Satisfaction Operational Optimization
	Improve Interdepartmental Collaboration	Customer Satisfaction Employee and Leadership Development
Goal 2 Strive to Meet Regulatory Requirements	Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Product Quality Stakeholder Understanding and Support Community Sustainability
	Strive to Minimize the Number of Sanitary Sewer Overflows	Infrastructure Strategy and Performance
Goal 3 Be a Fiscally Sound and Effective Water Sector Utility	Conduct Long Range Financial Planning	Financial Viability
	Manage Costs	Enterprise Resiliency Operational Optimization
Goal 4 Develop and Retain a Highly Trained and Innovative Workforce	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 Stakeholder Understanding and Support
	Meet or Exceed Industry Safety Standards	Employee and Leadership Development
Goal 5 Maintain a Reliable Infrastructure	Manage Assets Optimally Throughout Their Lifecycle	Infrastructure Strategy and Performance Enterprise Resiliency
	Facilitate Long-Term Capital Renewal and Replacement	Infrastructure Strategy and Performance
	Protect District Personnel and Assets from Threats and Emergencies	Enterprise Resiliency
Goal 6 Embrace Technology, Innovation, and Environmental Sustainability	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

Initiative Achievement Summary

The following provides a brief description of the level of achievement for each of the initiatives and the factors that contributed to their achievement.

Goal 1

Provide Exceptional Customer Service

Strategy 1

Foster Customer Engagement and Awareness

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

Achievement: This initiative is ongoing. The District installed a display monitor in the main lobby for customer information. The monitor provides a continuous presentation of information about the wastewater treatment process; plant and collection system maintenance; the Central San Academy; and awareness on the hazards of fats, oils and grease, flushable wipes, and pharmaceutical waste in the wastewater system.

The District also actively engages customers through social media including Facebook, Twitter, YouTube, and the Central San Blog to build customer awareness on issues of importance.

In the upcoming fiscal year, the District will be updating its website with the goal of improving the customer experience; improving and facilitating communication of important business information; and delivering the information that our customers expect and want from the District.



Increase Customer Understanding and Support for Key Issues Facing the District

Achievement: This initiative is ongoing. The District successfully completed the second Central San Academy, a six-week program which focuses on educating our customers on the mission of Central San, including curriculum that covered our infrastructure, future regulations, recycled water opportunities, budgeting, rates, and financing.

The District also developed video public service announcements that focused on important Central San programs, operations, and pollution prevention messages reaching 34.8% of households in our service area (delivering the message to an estimated 113,000-137,000 viewers).

Regarding capital improvements, the District provided compelling outreach and engagement for the Comprehensive Wastewater Master Plan (CWMP) and infrastructure improvements including holding three public workshops (two for residential customers and one for commercial customers) to discuss the CWMP recommendations, infrastructure improvements, financial outlook, and other District programs and services. The District also focused CWMP outreach in creative ways through presentations to city councils, taxpayer associations, televised broadcasts, *Pipeline* newsletter articles, community events and meetings.

The District additionally grew educational outreach through our publications and programs. More than 4,500 students were reached through our Science, Technology, Engineering, and Mathematics Program, and pollution prevention and career development information.

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



Achievement: This initiative is ongoing. Members of the Board of Directors and the General Manager met with mayors, city council members, and/or city managers within the District's service area. Members of the Board of Directors also spoke at council meetings in various cities providing updated information on the District. Additionally, Board of Director Members throughout the year have met with Federal and State elected officials through member conferences in Sacramento and Washington, D.C. and in-District meetings to discuss regional

water issues; legislation effecting the District; future infrastructure improvement plans; and other important issues.

The District also hosted a large-scale, award-winning 70th Anniversary Open House event that brought over 1,000 customers and 20 elected officials to the District to learn more about programs, services, operations, and to take tours of the treatment plant and Household Hazardous Waste Collection Facility.

Provide High Quality Customer Service

Achievement: This initiative is ongoing. The District takes considerable pride in the services that we provide to our customers, and we have built a strong culture of providing excellent service. Over the past year, Collection System Operations staff have arrived onsite to all emergency calls on average within 36 minutes; and for those calls, our customers rated our services 3.96 out of 4.0. On our capital improvement construction projects, we strive to minimize disruption to the public. On those projects, our customers have given us a satisfaction rating of 97%. At our Development Services permit counter, our customers had a satisfaction rating of 95%. Individual customers routinely write in to the District expressing appreciation for the level of respect and quality of service they receive.

Annually, we provide our staff with customer service training. This past year, all employees were provided with training on the Roles and Responsibilities of Public Employees.

Strategy 2 Improve Interdepartmental Collaboration

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



Achievement: This initiative is ongoing. The District provides a monthly award-winning employee newsletter, the *Lateral Connection*, that helps connect important District initiatives with all employees. It also serves to empower employees to develop new processes and procedures to provide better service to internal and external customers. This is made possible by the amount of multi-departmental information shared in the employee newsletter.

In the upcoming fiscal year, the District will be updating its internal intranet site. Our staff will benefit from the modernizing of the site by being able to more easily access

District policies, procedures, Division information, and other documents related to ongoing projects.

Increase Internal Partnerships

Achievement: This initiative is ongoing. The District has employed numerous multi-divisional teams to review critical projects. Examples of this coordination are the following projects:

- Public Private Partnership for Development and Implementation of a Full-Scale Bioenergy Facility (Planning, Regulatory, Plant Operations, Plant Maintenance, Finance)
- Solids Handling Facility Wet Scrubber Pilot Project (Planning, Engineering, Regulatory, Plant Operations, Plant Maintenance)
- District-wide Vulnerability Assessment (Planning, Plant Operations, Finance, Risk Management, Information Technology)
- Project Management Information System Procurement (Planning, Engineering, Finance, Information Technology)


The District has also continued the Information Technology Leadership Committee, which is a multi-divisional team of employees involved in the review and analysis of information technology projects, processes and procedures.



How are we doing?

Goal 1 – Provide Exceptional Customer Service

Metric	FY 2016-17 Target	Results
Average onsite response time for collection system emergency calls, during working hours	Less than 20 minutes	34.25 minutes
Average onsite response time for collection system emergency calls, after hours	Less than 30 minutes	37.88 minutes
Average customer service rating for emergency calls	At least 3.8 out of 4.0	3.96
Average customer satisfaction rating on construction projects	Greater than 95%	97.5%
Average customer satisfaction rating on permit counter interactions	Greater than 95%	94.8%
Number of students served by our education programs	Greater than 2,200 per year	2,797
Number of District employees attending annual customer service training	At least 50% of all District staff	77.1%
Number of participants on treatment plant tours	Greater than 150 participants per year	563
Number of participants at speaker bureau presentations	Greater than 400 participants per year	416
Number of students attending Citizens Academy	Greater than 30 participants per session	36



Goal 2
Strive to Meet
Regulatory
Requirements

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

Renew Treatment Plant
National Pollutant Discharge Elimination System Permit
which Expires on March 31, 2017

Achievement: This initiative was met. In April 2016, District staff established a permit application review team to successfully achieve renewal of the District's National Pollutant Discharge Elimination System (NPDES) Permit. Staff submitted a report of waste discharge to the San Francisco Bay Regional Water Quality Control Board on September 30, 2016. On April 12, 2017, the San Francisco Bay Regional Water Quality Control Board adopted the District's new NPDES Permit. The permit became effective on June 1, 2017 with an expiration date of May 31, 2022.

Meet Existing Regulations and Plan for Future Regulations

Achievement: This initiative is ongoing. The District continues to maintain operations to ensure compliance with all permit requirements. The District met all requirements of our NPDES Permit and completed 19 consecutive years of 100% compliance. The District also met all requirements of Title 22 of the California Code of Regulations related to recycled water.

The Environmental and Regulatory Compliance Division staff developed and implemented a permit matrix to track all regulatory permits. The staff also provided an annual update on significant regulatory issues to the Real Estate, Environmental and Planning Committee in November 2016 and provides periodic updates as necessary.

Foster Relationships with Regulatory Agencies

Achievement: This initiative is ongoing. District staff continues to foster positive working relationships with the San Francisco Bay Regional Water Quality Control Board, State Water Resources Control Board, Bay Area Air Quality Management District, United States Environmental Protection Agency, and other regulatory agencies through active participation in meetings, workshops and routine engagement.



Monitor and Track Proposed and Pending Legislation/Regulatory Changes That May Impact District Operations

Achievement: This initiative is ongoing. Through active participation in professional associations and engagement with regulatory agencies, District staff continues to monitor proposed and pending legislation/regulatory changes and analyze potential impacts on the District's operations. Environmental and Regulatory Compliance Division staff has submitted comment letters to regulatory agencies and has appeared before regulatory agency boards to engage rule developers on issues that may have significant impacts.

Actively Manage Greenhouse Gas Emissions in the Most Cost Effective and Responsible Manner

Achievement: This initiative was met. The District successfully maintained the annual anthropogenic greenhouse gas (GHG) emissions below 25,000 metric tons for the calendar year 2016. The annual 2016 GHG inventory report was submitted to the California Air Resources Board on March 3, 2017. The Environmental and Regulatory Compliance Division staff issues internal monthly GHG emission inventory updates to ensure that operational strategies are aligned with the internal GHG emissions target. The 2015 Greenhouse Gas Inventory Summary and Verification Report was issued to internal staff in October 2016.

Strategy 2 Strive to Minimize the Number of Sanitary Sewer Overflows

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

Achievement: This initiative was met. The District continues to maintain the sewer collection system to minimize sewage stoppages and overflows. In the past year, the District has transitioned our computerized maintenance management system (CMMS) from Accela to Cityworks. With the new CMMS system, the District has also implemented paperless work orders. Staff in the field are using mobile devices to access work orders, past work history, maps, and videos. This has enabled staff to respond to overflows and stoppages more efficiently by having information more readily available. In FY 2016-17, 744 miles of sewer pipes were cleaned; and of those miles, 98.58% were cleaned on-time and on-schedule.

Continue the Pipeline Condition Assessment and Cleaning Quality Assurance Program Using the System-Wide Closed-Circuit Televising Program

Achievement: This initiative is ongoing. The District has a goal to televise all sewers on average once every seven years. In FY 2016-17, 195 miles of sewer pipes were televised; 59 miles were televised by District staff, and 136 miles were televised by a contractor. In addition to televising our sewers to assess their condition, a select number of sewer lines are also televised after they are cleaned to determine the efficiency of our cleaning operations. In FY 2016-17, 22 miles of sewers were televised for quality assurance purposes, and 94.34% had a passing rating.



How are we doing?

Goal 2 – Strive to Meet Regulatory Requirements

Metric	FY 2016-17 Target	Results
NPDES compliance	Zero violations	Zero violations
Title V compliance	Zero violations	Zero violations
Recycled Water Title 22 compliance	Zero violations	Zero violations
Sanitary sewer overflows	Less than 3.0 spills per 100 miles of pipeline	2.53
Spills to public water	Less than 3	9
Percent of spills less than 500 gallons	Greater than 95%	88.55%
Pipeline cleaning schedules completed on time	Greater than 95%	98.58%
Pipeline cleaning quality assurance/quality control	On at least 3% of pipeline cleaned on an annual basis	3%
Pipeline cleaning quality assurance/quality control passing rate	Greater than 98%	94.34%
Annual source controls inspections completed on time	100%	100%

Goal 3

**Be a Fiscally Sound
and Effective Water
Sector Utility**

**Strategy 1
Conduct Long Range
Financial Planning**

Ensure Rate Structure Is Consistent with Cost of Service Principles

Achievement: This initiative is ongoing. The two-year rate structure adopted for FY 2017-18 and FY 2018-19 reflect the cost of service principles established in the 2015 Cost of Service Study. As part of the Mentorship Program, one of the mentee projects was to conduct a survey of mixed-use rate structures. This information will be reviewed by a consultant in the upcoming fiscal year to determine what, if any, modifications should be made to the District's rate structure. Mixed-use rate changes will be reviewed and any changes will be included in FY 2019-20 rate review.

Improve the Application and Processing of Capacity Fees for Consistency Across User Classes

Achievement: This initiative is ongoing. Staff reviewed 39 multi-use developments and identified changed uses. Where the usage has changed, staff is working on collecting these outstanding fees. Additionally, a consultant has been engaged to assist with assessing capacity fees for accessory dwelling units, patio dining, and mixed-use developments in FY 2017-18. Staff has developed a sampling plan for a sewer permit application audit and conducted a survey of 12 statewide wastewater agencies for capacity fee methodologies. The consultant will use this information in assessing our method of calculating capacity fees.



Develop a Long-Range Debt Management Policy

Achievement: This initiative is ongoing. The Administration Committee reviewed a draft Debt Management Policy and Administrative Procedures in June and July 2017. The debt policy was developed in accordance with Senate Bill 1029. Additional feedback has been obtained at each meeting and will be reflected in the revised drafts before being brought to the Board of Directors for potential adoption in August 2017.

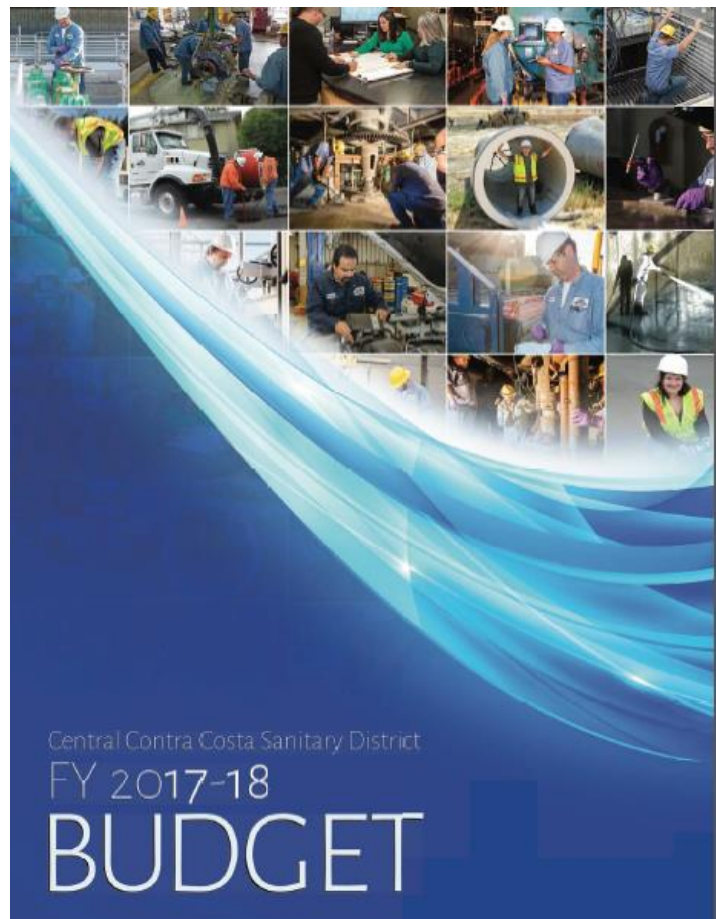
Develop Alternatives for New Revenues and Funding Sources (i.e. Interagency Agreements, Services, Recycled Water)

Achievement: This initiative is ongoing. During the year, staff met with the Contra Costa Water District to discuss the framework for a wholesale agreement for the Concord Community Reuse Project. Staff continues to look for innovative ideas to increase revenues for the District.

Strategy 2 Manage Costs

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

Achievement: This initiative is ongoing. As part of the Mentorship Program, a project was initiated to identify high-cost/high risk functions in each Division that could be audited. A list of areas of opportunities has been established. Funding was included in the FY 2017-18 Budget for an outside auditor, and it is anticipated that audits will be performed in FY 2017-18.



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

Achievement: This initiative is ongoing and has been expanded beyond the Operations Department to the entire District. In December 2016, staff made great strides toward the objective of creating a framework to track optimizations and their results. As part of the Mentorship Program, a report was assembled of completed and planned optimizations throughout the District. This report was used to establish a mechanism to record the optimizations, status updates, and performance measurements moving forward. Additionally, a vacant position has been repurposed to a Management Analyst which will assist in supporting and growing the District's innovative culture and continue to encourage more achievements such as these:

- Development of a portable oil filtration and flushing system.
- Installation of fixed vibration sensors and monitoring of the induced draft fan to provide early notification of elevated vibration and to allow for predictive maintenance.
- Reducing the number of backwashes per week at the Filter Plant by 35% by using three filters instead of one or two, which processes more water, increasing the time between filter backwashes, thereby reducing labor and energy costs.
- Modification of the caustic soda injection point from the first stage to the quench stage for the wet scrubber of Furnace No. 2 and optimizing the injection rate, to save future chemical costs while still ensuring compliance.

Evaluate and Implement Risk Management Practices to Minimize Loss

Achievement: This initiative is ongoing. On an annual basis, the Risk Management Section presents a Risk Management Report to the Board of Directors. The last report was presented in September 2016. The report includes annual claims assessments and trend analysis in addition to other key metrics. Additionally, after major losses or incidents, staff prepares an "after action" or "lessons learned" report. The last reports were completed in August 2016 for the flood loss at La Espiral in Orinda and in December 2016 related to efforts to collect late commercial capacity fees. On a routine basis after every sewer overflow or stoppage, the Collection System Operations staff reviews the specific details of the event and assesses changes that may need to be implemented to prevent future occurrences or losses.

How are we doing?

Goal 3 – Be a Fiscally Sound and Effective Water Sector Utility

Metric	FY 2016-17 Target	Results
Standard and Poor's Credit Rating	AAA	AAA
Debt service coverage ratio	Greater than 2.0 times	9.82
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	Greater than 90%	92.5%
Workers' Compensation experience modifier	Less than 1.0	0.67
Return to work	Provide modified duty for greater than 80% of occupational injuries	95%
Self-insurance reserves as a percentage of target	100%	100%

Goal 4

**Develop and Retain
a Highly Trained
and Innovative
Workforce**

Strategy 1

**Ensure Adequate Staffing and
Training to Meet Current and Future
Operational Levels**

Assess, Develop, and Implement District-Wide Training Needs

Achievement: This initiative is ongoing. During the year, the Human Resources Section held five mandatory human resources related training sessions for all District supervisors and twelve human resources related brown bag sessions open to all District staff. Specialty courses on business and technical writing, customer service, and understanding the roles and responsibilities of public employees were also held.

In the upcoming fiscal year, staff will be issuing a request for proposal to hire a training consultant to assist in the development of specific training plans for each operational section.

Develop and Train Our Future Leaders

Achievement: This initiative is ongoing. In FY 2016-17, the District initiated the new Mentorship Program with four participants working on various projects with different Management mentors each quarter. Some of these mentee projects, which were presented to the Board of Directors, included development of a training plan for maintenance staff, an assessment of the impact of patio dining on capacity fees, and optimization of the data transfer between Environmental Compliance staff and Development Review staff.

The District also continued the successful Management Leadership Academy program with 20 participants engaged in the six-month program. The District also offered one-on-one coaching sessions to all Management employees.

Outside of District staff, the District partnered with Earn and Learn East Bay to increase student exposure and engagement with Science, Technology, Engineering and Mathematic Program careers and to encourage students to pursue a career in the water and wastewater industry. For these efforts, the District was awarded the Youth Advocacy Award from the Workforce Development Board of Contra Costa County.

Strategy 2 Enhance Relationship with Employees and Bargaining Units

Cultivate a Positive Work Culture and Promote Teamwork

Achievement: This initiative is ongoing. The District continues to recognize staff at Board of Directors meetings for their award-winning achievements including the California Water Environment Association – Plant of the Year, Safety Program of the Year, Public Outreach Program of the Year, Gimmick and Gadget Award; the National Association of Clean Water Agencies Platinum Peak Performance Award (19 consecutive years of compliance with treatment plant discharge standards); Achievement of Excellence in Procurement Award (6 consecutive years); and Comprehensive Annual Financial Report Award (16 consecutive years). The District further received a California Association of Public Information Officials Award for the *Lateral Connection* newsletter for showing a “commitment to employee information and staff relations.”

Staff is also encouraged to work together as a team and does so on a regular basis on capital improvement projects and as mentioned under Goal One, Strategy Two, on special studies and projects.

Sustain and Grow Collaborative Relationships with the Labor Bargaining Units

Achievement: This initiative is ongoing. The District continues its quarterly Labor Management Committee meetings with the Management Support/Confidential Group employees. The District also completed a District-wide Classification Study, a Total Compensation Study, and initiated labor negotiations with the three bargaining units. The goal is to complete labor negotiations prior to the expiration of the current contracts in December 2017.

The General Manager also continued his bi-monthly lunches with the two main bargaining units representatives and his monthly “Meet the GM” lunches with individual work units.



Strategy 3 Meet or Exceed Industry Safety Standards

Achieve Consistent Improvement on State of California and Bay Area Industry Injury Rate

Achievement: This initiative was met. The District continued to monitor accident/incident causal factors and reported back to the respective departments, safety teams, and the Board of Directors. This awareness highlighted the hazards and identified corrective measures to reduce the number of incidents. In combination with education through the *Lateral Connection*, safety tailgates and training sessions that has resulted in a reduction of the injury incident rate for FY 2016-17 to 3.8 compared to the Bay Area/State of California rate of 7.4.



The District received the Plant of the Year: Safety Award from the California Water Environment Association – San Francisco Bay Section in Fall 2016 and was awarded the Plant of the Year: Safety Award statewide in Spring 2017.

Enhance the Safety Culture through Improved Training and Communications

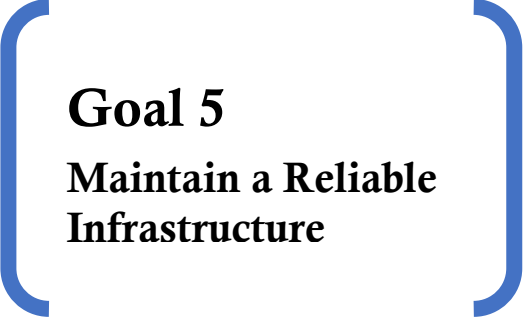
Achievement: This initiative is ongoing. The District continues to keep up to date and communicates safety regulatory changes and safe practices to District staff via distribution of the Cal/OSHA Reporter, safety articles in the *Lateral Connection*, and through training and tailgates conducted by Safety Section staff.

The District began implementation of a Safety Data Sheet management online database which allows employees to access chemical hazard information via a mobile device application and web browser. The Safety Data Sheet documents are automatically kept up to date to ensure the most accurate information is available.

How are we doing?

Goal 4 – Develop and Retain a Highly Trained and Innovative Workforce

Metric	FY 2016-17 Target	Results
Average time to fill vacancy (from request to hire)	Less than 60 days	53.25 days
Percentage turnover rate to remain at or below industry average	Less than 3.4%	9.14%
Average annual training hours per employee	Track in FY 2016-17 Set target for FY 2017-18	Average of 7.46 per full-time equivalent employee
Actual versus budgeted usage of tuition reimbursement	Greater than 80%	25.59%
Percentage of performance evaluations completed on time	100%	44.5%
Employee injury and illness lost time incident rate	Less than the Bureau of Labor Statistics California Sewage Treatment Facilities' Rate of 7.4	3.8



Goal 5
Maintain a Reliable Infrastructure

Strategy 1
Manage Assets Optimally throughout Their Lifecycle

Implement Board of Directors Approved Recommendations from the Comprehensive Wastewater Master Plan and Condition Assessment

Achievement: This initiative was met. The District completed the CWMP for the collection system and the treatment plant. The plan was presented to the Board of Directors in June 2017, and its recommendations and condition assessment findings have been incorporated into the current Capital Budget and the 10-year Capital Improvement Plan.

Update the Consequence of Failure Matrices

Achievement: This initiative was met. As part of the CWMP, the consequence of failure scores were determined for gravity sewers, pumping stations and forcemains. The consequence of failure matrix for the treatment plant was updated by District staff.

Implement the Reliability Centered Maintenance Program

Achievement: This initiative was met. The Plant Maintenance Division staff has been trained on reliability centered maintenance. During the past year, they performed two reliability centered maintenance pilots: one on the Dewatering System, Centrifuge Subsystem and one on the Steam System, Waste Heat Boiler Subsystem. This is a systematic approach to developing a comprehensive maintenance program based on asset criticality and consequence of failure. It also establishes a repeatable program with documented processes and procedures. Pilot results were presented to the Board of Directors on April 6, 2017 as part of the Asset Management update. A framework has been developed and implemented to improve maintenance efficiency based on reliability centered maintenance. The framework provides methods that identify and analyze the equipment and systems that cause a majority of reactive work orders based on cost and work order count. Additionally, the framework includes methods to analyze the remaining equipment and systems to an appropriate level of detail, resulting in the application of the most effective preventative maintenance task for all treatment plant equipment and systems.

Manage and Maintain Current Equipment and Vehicle Fleet to Provide Maximum Value

Achievement: This initiative is ongoing. The District continues to maintain our vehicles and equipment to minimize unscheduled downtime. During this past year, the Vehicle and Equipment Shop has transitioned to a new CMMS from Accela to Cityworks and is using field tablets to perform vehicle inspections, and input work orders and inventories.




There were 966 services on vehicles with an uptime of 100%. The District has also entered into an agreement with Verizon NetworkFleet to pilot test automated vehicle location and vehicle diagnostic software. The pilot study will take place during the month of July 2017 and then a decision will be made for full implementation.

Strategy 2 Facilitate Long-Term Capital Renewal and Replacement

Integrate the Data from the Asset Management Program into the Analysis of Long Term Capital Improvement Needs Based on the Board of Directors Approved Comprehensive Wastewater Master Plan

Achievement: This initiative was met. Planning staff completed the implementation of the InfoMaster software. The InfoMaster software leverages data from the Asset Management Program, such as closed-circuit television scores and cleaning frequency, to calculate the likelihood of failure and considers likelihood of failure and consequence of failure to analyze and prioritize gravity sewer pipe renovation needs.

Also, as stated previously, the District completed the CWMP which includes near-term and long-term recommendations that are coordinated with the condition assessment findings. The CWMP will be updated on a routine basis, likely every five years, and will be referenced during the annual budget process to incorporate long-term (10-plus years) recommendations and update the 10-year Capital Improvement Program.



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

Achievement: This initiative was met. Staff developed and started using business case evaluations, including life-cycle cost and triple bottom line analysis, when evaluating new capital projects to determine most cost-effective projects and solutions; the most recent example being the Cogeneration System Improvement Project.

Strategy 3
Protect District Personnel and Assets from Threats and Emergencies

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

Achievement: This initiative is ongoing. Risk Management staff provided a presentation to the Board of Directors in February 2017 on the District's Emergency Management Program, which included an assessment of the District's response capability and the components of our Program. The Program includes plans, training, communications, supplies and equipment, and coordination. Our Emergency Operations Plan was updated in September 2016.

District staff is also currently participating in the multi-jurisdictional Local Hazard Mitigation Plan update along with staff from 35 other agencies, including Contra Costa County. The update process began in November 2016, and we have submitted all updates specific to the District. The Plan is being finalized for Federal Emergency Management Agency review. Regarding training, the annual Emergency Operations Center activation exercise was held in September 2016.

The Information Technology staff procured the services of a remote co-location facility to replicate server and application data to improve the ability to recover from a disaster or prolonged system outage. Also, a new tape backup system was implemented to complement the primary disk based backup system, which provides an additional viable recovery method.

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

Achievement: This initiative is ongoing. The District completed a comprehensive Security System Study, which included physical security assessments of District facilities. This report is scheduled to be presented to the Board of Directors in August 2017. The recommendations include consolidation of security monitoring, standardization, enhanced security culture and policies, and specific security improvement recommendations for District facilities. Additionally, enhanced access control measures have been implemented in the lobby area of the Martinez Headquarters Building.

The Information Technology staff made a presentation to District staff focusing on security awareness that emphasized common cyberattack tactics and how to protect against them. Key security applications were upgraded, which provides enhanced malware detection, prevention, and removal capabilities. A mandatory password change was implemented for all District employees. Also, all legacy servers and workstations running insecure operating systems have been retired.



How are we doing?

Goal 5 – Maintain a Reliable Infrastructure

Metric	FY 2016-17 Target	Results
Safety work orders completed on time	100%	93.5%
Regulatory Title V work orders completed on time	100%	95.03%
Planned treatment plant preventative maintenance completed on time	Greater than 95%	87.8%
Complete implementation of Infomaster	By first quarter of 2017	Completed
Miles of pipeline replaced	Greater than 1% of assets	0.33%
Capital expenditures as a percentage of capital budgeted cash flow	Greater than 90%	89.1%
Information system uptime (excluding planned maintenance)	100%	99.99%
Data backup and recovery	Zero lost data	Zero lost data

Goal 6

**Embrace Technology,
Innovation, and
Environmental
Sustainability**

Strategy 1 Augment the Region's Water Supply

Explore Partnering Opportunities (e.g. Contra Costa Water District and East Bay Municipal Utility District)

Achievement: This initiative is ongoing. District staff continues to pursue discussion and interest in the potential projects identified in the District's Wholesale Recycled Water Study. In FY 2016-17, staff conducted meetings to discuss the District's potential supply of recycled water with the U.S. Bureau of Reclamation, Dublin San Ramon Services District, and Zone 7 Water Agency.

In addition, the District's General Manager represented the Bay Area Clean Water Agencies on the Bay Area Regional Reliability Task Force, a stakeholder group charged with reviewing and providing input on the Bay Area's planning efforts to establish a resilient water supply. The General Manager was instrumental in promoting a regional exchange program that has become one of the top recommendations of this regional planning study, which was jointly funded with the United States. Bureau of Reclamation.



Develop a Satellite Recycled Water Facilities Program

Achievement: This initiative is ongoing. In FY 2016-17, the District executed a Planning Agreement with the Diablo Country Club and initiated the environmental review process, including completion and release of the Initial Study and Notice of Preparation of an Environmental Impact Report in compliance with the California Environmental Quality Act, and conducted two Open House public meetings to receive input on the project. In FY 2016-17, District staff also supported the Diablo Country Club's efforts to issue a request for proposals to procure the design-build team for the project.



Strategy 2 Evaluate Business Processes and Optimize Business Operations

Perform Business Process Mapping and Re-Engineering

Achievement: This initiative is ongoing. Staff met with our current Enterprise Resource Planning (ERP) vendor, SunGard, to discuss optimization. Select improvements were made to the purchasing process, and ERP system limitations were identified. The District also entered into an agreement with the Government Finance Officers Association to assess the District's readiness to transition to a new ERP system. The scope of this agreement includes the analysis and documenting of our current business processes; an assessment of areas for optimization; requirements for a new ERP system; an assessment of organizational readiness; and assistance in the procurement of a new ERP. It is anticipated that this work will be completed by the fall of 2017.

Strategy 3 Encourage the Review and Testing of Promising and Leading Technology

Expand and Improve the Use Mobile Computing and Communication Technologies

Achievement: This initiative is ongoing. The District implemented new software and hardware to improve operational efficiency, including implementation of a new CMMS, Cityworks. As part of this implementation, the District also rolled out mobile devices in the field for maintenance staff to use with the Cityworks CMMS system to improve efficiency and access to information. The District also rolled out mobile devices to the Environmental Compliance staff to automate the inspection process and provide current information in the field.

Other efficiencies include the implementation of a streamlined Section 125 Flexible Spending Account plan which includes a debit card, mobile application, a third-party administrator to process all claims, and a mobile application (Ben IQ) which contains information on all District benefits.

Continue Developing and Investing in Cost Effective Innovation, Technology, and Applied Research and Development

Achievement: This initiative is ongoing. The Applied Research Committee continues to meet on a quarterly basis to discuss pilot and optimization opportunities. The District is completing a comprehensive pilot of new wet scrubber technology as part of the Solids Handling Facilities Improvements Predesign Project. The pilot plant began operation in May 2017 and is scheduled for completion by September 2017.



The District is also part of a consortium of organizations and public agencies led by the Water Environment and Reuse Foundation that was selected by the Department of Energy to plan and design a three-to-five dry tons per day, innovative bioenergy pilot plant. The District was selected as the host site for the pilot plant, which is 50% funded with a \$1.2 million grant from the Department of Energy. The District hosted the project kickoff workshop in June 2017 where over 30 attendees from across the United States and Canada were in attendance.

The District is also currently evaluating several other innovative nutrient removal technologies for potential pilot projects, such as aerobic granular sludge and membrane aerated biofilm reactors.

Strategy 4 Reduce Reliance on Non-Renewable Energy

Explore Opportunities for Self-Generation, Conservation, and Efficiency Based on the Board of Directors Approved Comprehensive Wastewater Master Plan

Achievement: This initiative is ongoing. District staff routinely tracks energy usage and provides a summary of usage to the Board of Directors on a quarterly basis. An Energy Policy (BP027) was presented to and approved by the Board of Directors in August 2016, which includes criteria for evaluating energy generation projects. An energy self-sufficiency assessment was completed as part of the CWMP. Recommendations for energy efficiency improvements and other improvements to strive towards net zero energy are included in the CWMP and were presented to the Board of Directors in 2016 and 2017.

The District has completed installation and start-up of the solar photovoltaic systems at the Household Hazardous Waste Collection Facility and Collection System Operations Building. We will be pursuing solar photovoltaic opportunities for the treatment plant and/or buffer properties in FY 2017-18.

The District is also pursuing public-private partner interest in a Bioenergy Facility that will produce renewable energy and process a portion of the District's solids. A request for interest for innovative bioenergy projects, such as gasification and other solids to energy processes, was issued and letters of interest were received in June 2017.



How are we doing?

Goal 6 – Embrace Technology, Innovation, and Environmental Sustainability

Metric	FY 2016-17 Target	Results
Total gallons of recycled water distributed to external customers	Greater than 240 million gallons per year	204,122,430 gallons per year
Maximum residential fill station customer wait time	15 minutes	Less than 5 minutes
Gallons of recycled water distributed at the residential fill station	Greater than 14 million gallons per year	4,833,536 gallons per year
Gallons of recycled water distributed at truck fill program	Greater than 4 million gallons per year	199,511 gallons per year
kWh of electricity produced	Greater than 18 million kWh per year (reported as a rolling average)	18.9 million kWh
kWh of solar power produced at Collection System Operations and Household Hazardous Waste	Greater than 200 kWh per year (reported as a rolling average)	136,215 kWh
Pilot test new and promising technology	Greater than 3 pilot tests or reviews per year	5
Present research papers and findings	Greater than 3 papers per year	5