2018
Corporate Sustainability Report

Serving, Protecting, and Delivering
Quality Water & Reliable Service

SJW Group

HUMAN RIGHT TO WATER

Whereas, Section 106.3 of the California Water Code declares the state statutorily recognizes that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes;

Whereas, the California Public Utilities Commission (CPUC) is responsible for ensuring that California's investor-owned water utilities deliver clean, safe, and reliable water to their customers at reasonable rates;

Whereas, SJW's mission is trusted professionals delivering exceptional quality water and service to customers and communities while protecting the environment and providing a fair return to shareholders;

It is the policy of all SJW's water utilities to provide a reliable supply of safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes in accordance with State and Federal statutes, laws and regulations at rates established by our governing Public Utility Commissions.

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SJW VALUES, MISSION AND VISION

MESSAGE FROM OUR CEO

In many ways, 2018 was a transformative year for SJW Group. We have new mission and vision statements. SJW Group employees in Texas and California, building on 152 years of history and with an eye towards the future, announced our new shared values. Our core values of integrity, respect, service, compassion, trust, teamwork and transparency serve as a firm foundation for all we do. Whether its customers, communities, employees, shareholders, or the environment, our commitment is clear – to serve them at world class levels.

That is why I am so proud to introduce our inaugural Sustainability Report for 2018.

Sustainability has always been a critical part of the company's culture. As water service providers, we understand our stewardship role in the protection of this vital resource. And our investments in innovative technologies like acoustic leak detection using high tech acoustic sensors and satellite based water leak location to help us find invisible leaks in our system, and environmentally sensitive design/build approaches to new facilities are evidence that we continue to put our commitment to a sustainable water system first as we look to the future.

Yet we understand that it is the people of our company that really make the difference.

Sustainability pays dividends in our ability to better serve our customers. Our annual customer survey results tell us that 66% of our customers gave high marks to reliability as one of the overall strongest characteristics of our company. I consider that high praise. Water service becomes most critical when it isn't reliably available. Whether that's having the supply and pressure needed to fight fires, or ensuring that homes and hospitals have a safe, reliable supply of potable drinking water in the hours and days following a natural disaster, when water reliability falters, the health and safety of a community may not be far behind.

In March, we announced our plan to merge with Connecticut Water. This merger will leverage best-in-class Customer Service practices, maximize our ability to procure goods across a larger platform, and will foster excellence through the sharing of best practices and technologies. The combination will further improve the customer experience across the company's increase scale and enhanced geographic diversity. Our new company will be the third largest regulated water utility in the country. That national scale with local focus will deliver value for our customers and enhance their water systems for generations to come.

2019 looks to be another ambitious year for SJW Group as we bring the Connecticut Water merger to a close, and begin to integrate the two companies. New projects and many new opportunities are on the horizon, and I look forward to continuing to share them all with you.

In Service,

Eric W. Thornburg
President and CEO, SJW Group

ABOUT US

Founded in 1866, San Jose Water is an investor owned public service utility, and is one of the largest and most technically sophisticated urban water systems in the United States. We serve over 1 million people in the greater San Jose metropolitan area with high quality, life sustaining water with an emphasis on exceptional customer service. SJW also provides services to other utilities including operations and maintenance, billing, and backflow testing. By sharing these services with others, we benefit the local community, lower the cost of water operations, and improve opportunities.

SJW is owned by SJW Group, a publicly traded company listed on the New York Stock Exchange under the symbol SJW. SJW Group also owns SJW Land Company, and SJWTX, Inc.

SJWTX, Inc. does business in Texas as Canyon Lake Water Service Company and its newly acquired Deer Creek Ranch Water System. Those systems serve more than 16,000 customer connections in the New Braunfels and Deer Creek Ranch communities.

Lake Elsman

HIGHLIGHTS OF SAN JOSE WATER AND CANYON LAKE WATER SERVICE COMPANY

As 2018 comes to a close, we're excited to see the progress we continue to make towards building a stronger more sustainable organization, water supply system, and community.

SAN JOSE WATER HIGHLIGHTS

Some of the key highlights San Jose Water is celebrating include:

The Opening of the Montevina Ultrafiltration Water Treatment Plant

The $62 million investment in creating a leading-edge treatment plant with the largest installation of this type of ultrafiltration membrane technology is a major accomplishment for SJW and its partners. Using a progressive design-build approach helped to bring the plant online within the scope and timeline to which we had committed, and led to an incredibly innovative construction approach that is being recognized throughout the water industry.

Montevina Water Treatment Plant Ribbon Cutting

Since the official May opening, Montevina has been recognized by the American Society for Civil Engineers (ASCE) San Francisco Region with an award for Environmental Engineering and by the National Association of Regional Utility Commissioners (NARUC) as the Water Industry Innovation for 2018!

Laid end to end, the ultrafiltration fibers in the Montevina plant's membranes could stretch from San Jose, CA to Chicago, IL!

Montevina will be able to treat between 3 and 5 billion gallons of water annually and will serve up to 100,000 SJW Customers during the summer months and as many as 300,000 SJW customers during the lower-demand winter months.

Satellite Leak Detection

SJW is using satellite technology to successfully track leaks that aren't visible yet. Practicing what we preach when it comes to water conservation is a way of life for SJW and part of that means employing the most modern technology to catch leaks in our system early and keep them from creating bigger problems if they were to continue unchecked. To do this, we used Utilis to conduct satellite surveys of our entire service area. That survey results in a map that highlights areas where there may be leaks. We've combined that satellite technology with acoustic leak detection sensors, which are currently deployed on 2,000 fire hydrants throughout our service area that help to pinpoint the exact location of possible leaks using the latest sound technology.

A team of Distribution System Inspectors using the Utilis reports saved more than 40 million gallons of water, tracked and resolved 79 leaks caused by SJW pipes or infrastructure and notified 63 customers of leaks on their property. These efforts saved those customers money and helped to conserve the water we all share.

Advanced Metering Infrastructure

SJW's Advanced Metering Infrastructure (AMI) pilot project was completed in 2018. At the request of the California Public Utilities Commission (CPUC), SJW undertook a pilot project to test two different AMI or "smart" meters in our service area. The pilot project, which included approximately 800 households in the Willow Glen area of San Jose, is now complete and a final report is being prepared for the CPUC. Some early findings related to the pilot deployment demonstrated that customers using the technology saved nearly 10% more water over their prior usage and that high water usage households were more likely to sign up for online access to the portal. As part of the final report to the CPUC, SJW is currently conducting a survey of pilot participants to get feedback regarding their satisfaction with the technology over their older "analog" style meters.

CLWSC, INC. HIGHLIGHTS

CLWSC's service area is currently experiencing rapid growth, averaging more than 100 new connections monthly. To meet this rapid rise in demand CLWSC works proactively to acquire or develop new water and wastewater facilities. In July of 2018 it acquired its seventh public water system, Deer Creek Ranch Water, and in August of 2018 it brought a new wastewater treatment plant online to serve over 400 homes. To manage this boom in growth, CLWSC has also grown its staff resources to more than 50 employees.

As the company grows, so too do its efforts to improve efficiency, customer communication, and sustainability. A few immediate initiatives include:

Optimized Billing Software

Employing new billing software that will help staff achieve operational efficiencies, and opening the door to enhanced customer interfaces such as paperless billing, on-line bill pay, and information about customer-specific water use.

Meter Conversion

Completing a utility-wide conversion from manual read meters to radio read meters. This change will allow staff to take meter reads more quickly and with more precision than in the past. It also helps build customer-specific data sets that may be used in the future to identify irregular use and/or help customers conserve water.

Online Customer Reporting

Developing online web reporting for customers to notify staff about leaks and water restriction violations. These new features will help staff respond more quickly to customer reports, and minimize water waste.

Canyon Lake Water Treatment Facility

CLWSC is currently developing a pilot program to educate customers about their water sources and the impact of drought.

Conservation Planning and Programs

Making strategic changes to the utility conservation plan and creating conservation programs that are tailored to the communities in CLWSC's service area. CLWSC is currently developing a pilot program to educate customers about their water sources and the impact of drought. The goal of this program is to both curb unnecessary outdoor use and encourage the use of landscape that aligns with the native landscape of the Texas Hill Country.

CLWSC also strives to support initiatives that are important to the communities in which it does business. In the first eight months of 2018 alone, CLWSC supported 12 different community events and organizations such as the Canyon Lake Little League Baseball Team (for the 14th consecutive year) and the Bulverde/Spring Branch Golf Classic which raised funds to support the Bulverde Chamber of Commerce. It also hosted a Canyon Lake Chamber of Commerce event at one of the surface water treatment plants offering a chance for customers to meet neighbors, network, tour the plant and learn more about CLWSC.

SJW CORE VALUES

RESPECT
Treat everyone with the highest regard, value diverse perspectives and viewpoints.

INTEGRITY
Do the right things for the right reasons, even when no one else is looking.

SERVICE
Selflessly helping others and exceeding their expectations.

TRANSPARENCY
Consistently open and honest.

SJW Group

COMPASSION
Willingness to listen and genuine desire to understand.

TRUST
Give it. Earn it. Keep it. Honest, authentic and honorable in all we do.

TEAMWORK
Combining our diverse strengths with open communication to achieve common goals.

OUR CORPORATE CULTURE, MISSION AND VISION

With the November 2017 arrival of new SJW Group President and CEO, Eric Thornburg, 2018 brought with it a new approach to SJW culture through a newly redefined mission, vision, and employee-selected values.

Working with a carefully selected advisory committee of employees representing groups across the organization, San Jose Water developed a refreshed mission and vision for the company and agreed upon a set of values that best emphasizes the company's commitment to service with integrity and compassion.

The Mission is SJW's guide to what we plan to achieve:

"Trusted professionals delivering exceptional quality water and service to customers and communities while protecting the environment and providing a fair return to shareholders."

The vision sets a high bar that defines SJW's success:

"To serve customers, communities, employees, shareholders, and the environment at world class levels."

FOCUS ON SERVICE, NOT SALES

San Jose Water has been providing safe, reliable, high-quality water to its customers for more than 150 years. It takes a culture of innovation, creativity and commitment to customers to stay in business this long. But even the best companies have to reinvent the way they approach their business.

As part of this corporate reinvention, San Jose Water is emphasizing service over sales. In California's water industry, conservation will always drive water usage. And given the value of this precious natural resource, particularly in California's arid climate, water companies have a responsibility to be good stewards of the water supply.

This means as a company, our focus is most responsibly placed on service, not sales. San Jose Water delivers significantly less water today than it did 30 years ago despite substantial increases in population This is possible only by promoting better, more water efficient fixtures, a focus on maintenance to avoid leaks and customer education programs that help to change behaviors and reduce consumption.

A reliable, safe, well-maintained water system is vital to the vibrancy and economic success of a region. To ensure our community can continue to build on those successes, San Jose Water is strengthening its commitment to provide the highest level of customer service through investments in technology and infrastructure that allow us to put the spotlight where it should be: on meeting and exceeding our customer's expectations.

Given the value of the precious natural resource, water companies have a responsibility to be good stewards of the water supply. This means as a company, our focus is most responsibly placed on service, not sales.

EMPLOYEE ENGAGEMENT

SJW is committed to providing a workplace that is conducive to employee participation wherein all employees are valued and appreciated members of the business. Since 2015, SJW has performed Employee Engagement Surveys, shared the results with all employees, and has implemented positive culture improvements following a top-down approach, with Human Resources consulting as needed. Each year, the company focuses on its strengths and takes on two to three opportunities to achieve stronger employee engagement.

The results reflect an 84% participation rate, with 78% of employees giving favorable marks for engagement. Areas of strengths and opportunities for primary focus are as follows:

Strengths	Opportunities
Employee Voice	Workload
Top-down Communication	Supervisor Interactions

What are we doing in response to our employees' feedback?

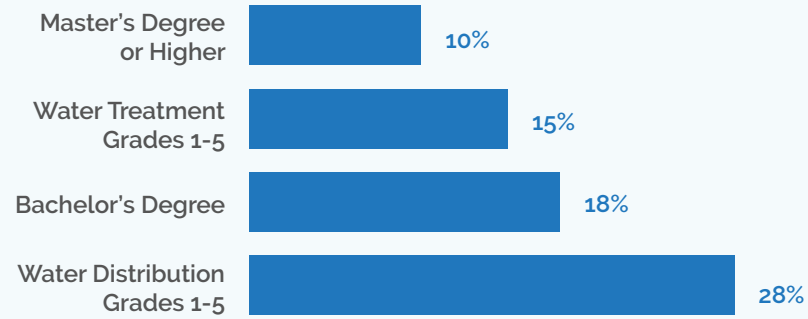
1. Each department has identified primary focus areas based on employee feedback
2. Departments are engaging with employees to identify, design and implement recommended actions
3. A pulse survey will be conducted in early 2019 to check our progress

EMPLOYEE DEVELOPMENT

SJW is a proponent of career advancement and offers a variety of professional development courses both internally and externally. Courses in supervisory skills, communication and project management are a few that are offered internally to all employees who are interested. SJW offers up to $5,000 annually in education related reimbursements for those seeking bachelors and or master's degrees in their field. In addition, SJW also partners with local colleges and resources to provide continuing education units to our Distribution and Treatment Operators and has created opportunities for high school and college students to learn and work in the water industry.

Many of our employees participate in educational opportunities, including skill-related topics pertaining to equipment handling and safety programs.

2017 Employee Education & Certifications



LABOR RELATIONS

SJW has employees represented by two labor unions, Utility Workers Union of America, AFL-CIO, Local 259 since 1946, representing 54% of employees, and the Operating Engineers, Local Union 3 of the International Union of Operating Engineers, AFL-CIO since 1970, representing 11% of employees. The remaining 35% are unrepresented in both California and Texas.

SJW has productive relationships with both unions and have joined forces to create an environment of open communication and honesty. SJW managers and the union members have formed two joint committees, the Joint Health & Safety Committee and the Joint Management-Labor Committee. Each committee has an equal number of members from the unions and the company and focus on safety topics, assessing knowledge needs of the future workforce, developing training and integration programs for employees affected by workplace change, and addressing opportunities to work more efficiently.

SJW promotes employee recognition programs that give managers a chance to recognize top performers and employees a chance to give each other kudos for a job well done.

The "Going the Extra Mile" award recognizes employees in eight different categories: Leadership, Commitment, Teamwork, Customer Service, Innovation, Health & Safety, Community Service, and Environmental Stewardship.

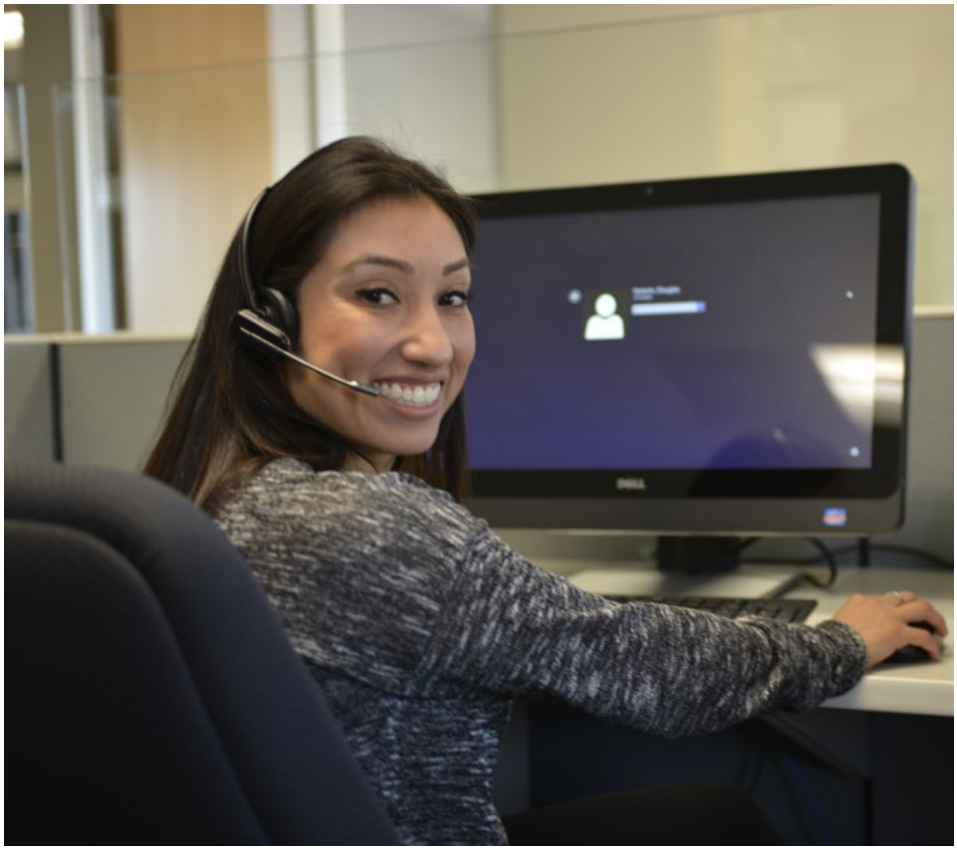
RECOGNIZING EMPLOYEE ACHIEVEMENTS

A culture of positive recognition where employees feel their work is appreciated and noticed, leads to happier more motivated employees. To foster this culture, SJW promotes employee recognition programs that give managers a chance to recognize top performers and employees a chance to give each other kudos for a job well done.

The quarterly "Going the Extra Mile" (GEM) award recognizes employees in eight different categories: Leadership, Commitment, Teamwork, Customer Service, Innovation, Health & Safety, Community Service, and Environmental Stewardship. Any person in the company can nominate any other for a GEM award for excellence in these categories. Awards are presented by the nominator at a quarterly employee recognition luncheon.

Employees are also recognized for their service and receive service awards at each five year milestone.

In addition to the GEM award, the Spotlight Award fosters greater employee engagement as rewards are gifted on a more frequent basis for employees going above and beyond. In addition, the Spotlight award rewards employees, not only for qualities in the eight categories listed above, but also for exemplifying one or more of SJW's core values.



EMERGENCY MANAGEMENT

San Jose Water Commitment to Emergency Management and Preparedness

San Jose Water has a long-standing commitment to emergency preparedness and organizational readiness. Access to a clean, reliable water supply, is critical in the aftermath of a major event or natural disaster. This preparation includes both internal program elements in training, and external coordination and partnerships.

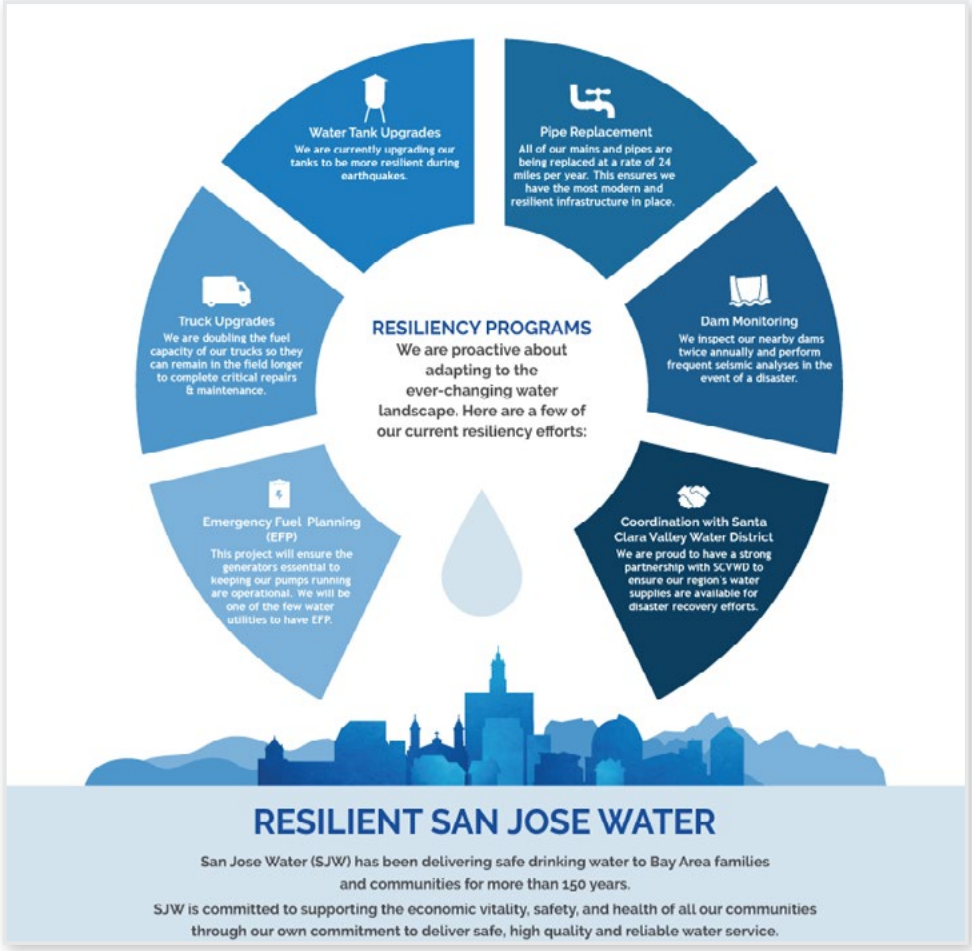
Emergency preparedness requires commitment to the planning and execution of an organized response in the event of major incidents. SJW relies on the principles of standardized emergency management systems, specifically the National Energy Modeling System (NEMS) and Standardized Emergency Management System (SEMS), in the activation of its emergency response center and teams.

In the area of regional preparedness, SJW serves as a leader in coordination between various emergency response agencies and partner utilities. This includes participation in the planning and coordination of regional emergency response exercises and other training events.

SJW also participates in several response and recovery planning and implementation organizations used to improve water utility resiliency, multi-agency coordination, Critical Infrastructure/Key Resource (CI/KR) cooperative planning, and Public/Private Partnership planning and operation.

The following is a list of SJW Partnerships:

1. National Water Sector Coordination Council
2. National Association of Water Companies – Safety and Security Committee
3. Bay Area Center for Regional Disaster Resilience – National Infrastructure Protection Plan Technology Challenge - Toolbox to Enable Risk-Based, Cross-Sector Decision-Making for Regional Critical Infrastructure Security and Resilience
4. California Water Association – Safety, Security and Emergency Management Committee
5. Santa Clara Valley Water District – Emergency Management Subcommittee
6. Santa Clara County Emergency Managers Association



SJW Resiliency Program Poster

ENTERPRISE RISK MANAGEMENT

San Jose Water is currently developing a Facility-Wide Site Risk Management Approach (RMA) in consultation with the County Department of Environmental Health. The RMA is SJW's programmatic approach to the evaluation, communication, mitigation and in-place management of the risks raised by constituents of concerns (COCs) regarding soil and materials at our station sites.

In brief, SJW conducts an environmental site assessment prior to the construction of an improvement or replacement project at a station. A Hazards Communication Summary is developed for interested parties regarding those soil or material screening levels that are above the "applicable environmental screening level. " Mitigation is done to meet the cleanup goals for the planned future use of the site.

For site mitigation not covered by the RMA, SJW applies for a site mitigation permit with the County so that the Department of Environmental Health can provide oversight of the mitigation work.

The RMA provides guidance so that the implementation of the risk management measures are applied consistently.

SJW Dam Information				
Dam Name	Capacity in MG[1]	Capacity in AF[1]	Year Built[2]	DSOD Rating[3]
Lake Ranch	70	215	1876	Fair
Lower Howell	50	153	1877	Satisfactory
Upper Howell	79	243	1878	Satisfactory
Williams	52	160	1895	Satisfactory
Austrian	2,020	6,200	1950	Satisfactory
Columbine	19.5	60	1963	Satisfactory
Almaden Valley	8.8	27	1965	Satisfactory

Notes:
1. MG = Millions of gallons, Acre-feet = 325,850 gallons
2. Year certified per Division of Safety of Dams (DSOD) records
3. Condition rating per DSOD (Satisfactory, Fair, Poor, Unsatisfactory)

DAM SAFETY

Maintaining the highest levels of dam safety is of paramount importance to San Jose Water. As shown in the table, SJW has seven dams that are regulated by the California Department of Water Resources, Division of Safety of Dams. Although we only have one medium sized dam and 6 small dams, our dams are located relatively close to the San Jose metropolitan area and surrounding communities. Accordingly, we work very closely with state dam regulators and are very responsive to internal and external inspections and have developed detailed emergency response plans and dam inundation studies.

San Jose Water has some of the oldest dams in California, yet six of the dams achieved the highest condition rating available and the oldest dam has the second highest rating (expected to achieve highest rating pending completion of an active project in 2018).

Dam Safety Highlights

- Updated Dam Inundation Studies and Maps for all dams for submittal to the Division of Safety of Dams and California Office of Emergency Services
- Developing an outbound messaging system to provide automated alerts in case of emergencies (expected completion in 2019)
- Successfully completed all internal led, consultant led, and DSOD led inspections with very minor comments
- Began replacement of outlet valves at Lake Ranch with state-of-the-art siphon outlet structures to be completed in 2018.

ENVIRONMENTAL STEWARDSHIP

SUSTAINABILITY INITIATIVES

San Jose Water (SJW) has crystal clear drinking water, but the company is solidly green.

San Jose Water's goal is to be an environmental leader in the community by providing safe and reliable water in a manner sensitive to the environment. We are committed to minimizing environmental impacts of our business as a core value by being sensitive to the needs of the community and by strictly complying with the letter and intent of environmental laws.

There are many sustainability initiatives, some of which are listed below.

- Energy efficient lighting and occupancy sensors
- Recycling of metals and paper
- Solar energy
- Water conservation
- Recycled water
- Energy management and energy conservation for pumps
- Green cleaning supplies
- Green office supplies
- Low maintenance landscaping
- Commuter assistance

SJW Solar Panels

San Jose Water (SJW) has crystal clear drinking water, but the company is solidly green.

Recycling

San Jose Water Company actively recycles paper and metals. A large program is in place to collect paper and metal products, going beyond the installation of recycle bins in offices. SJW has several recycling programs, including:

- Paper products
- Batteries
- Hydraulic and motor oil
- Chlorine
- Fuel
- Paint and spent paint cans
- Fluorescent lights
- Wood pallets
- Brass, copper and other metals (and pipes)
- Water meters
- Concrete

Green Cleaning Products

Since 2007, SJW has ensured that cleaning products used by janitorial services and employees at work be "green". Recently, many cleaning products have been formulated to clean with less aggressive ingredients. These products reduce the amount of VOC's (volatile organic compounds) that are put into the air. They also reduce or eliminate dyes, silicates, phosphates, and solvents.

Green cleaning products are usually identified by a "Green Seal". Green Seal is an "independent, non-profit organization that strives to achieve a healthier and cleaner environment by identifying and promoting products and services that cause less toxic pollution and waste, conserve resources and habitats, and minimize global warming and ozone depletion."

Cleaning products recommended for green solutions include:

- All purpose cleaners
- Glass cleaners
- Disinfectants
- Restroom cleaners
- Carpet cleaners
- Floor sealing, finishing and finish removers

Low Water Landscaping

SJW has made a concerted effort to retrofit landscaping at utility stations such as tank sites and pump stations, as well as the areas around occupied buildings. By planting native drought resistant plants, SJW saves on both the maintenance costs of the plants and on the water usage of the landscaping. There are many native species used that are not only aesthetically pleasing, but also provide good erosion control.

SJW Demonstration Garden

WATERSHED PROTECTION

SJW's water supply includes a combination of surface water from the Los Gatos and Saratoga Creek Watersheds, groundwater from aquifers in the Santa Clara Valley, and treated imported surface water purchased from the Santa Clara Valley Water District (SCVWD).

To protect its surface supply sources, San Jose Water owns, operates and maintains several facilities and manages several thousand acres of watershed lands within the Los Gatos Creek Watershed.

The Los Gatos Creek Watershed Maintenance Program (Maintenance Program) is a long term and ongoing program developed to identify and improve facility maintenance and land management under San Jose Water's direction. A renewable 5-year Regional General Permit (RGP) has been negotiated with the appropriate regulatory authorities to ensure that the maintenance activities performed comply with all state and federal regulations to protect endangered and sensitive plant and animal species, as well as water quality within San Jose Water's watershed.

In total, San Jose Water facilities within the Los Gatos Creek Watershed include five reservoirs (impoundments), seven intake structures, water distribution pipelines, several access roads, nearly 100 roadside culverts, and approximately 6,000 acres of land. The Maintenance Program is focused on providing regular and routine maintenance to these facilities. Routine maintenance activities, such as clearing localized debris or sediment removal at culvert crossings, clearing minor sediment at intake facilities, preserving access routes, preserving fire defensible space around facilities, and maintaining operations at the various facilities represents the majority of San Jose Water's maintenance projects.

San Jose Water's routine maintenance activities are designed to meet the following goals:

- Protect the quality of San Jose Water's source water supplies.
- Maintain the structural and functional integrity of San Jose Water facilities.
- Reduce reliance on imported water supplies.
- Protect existing fresh water and wildlife habitats.

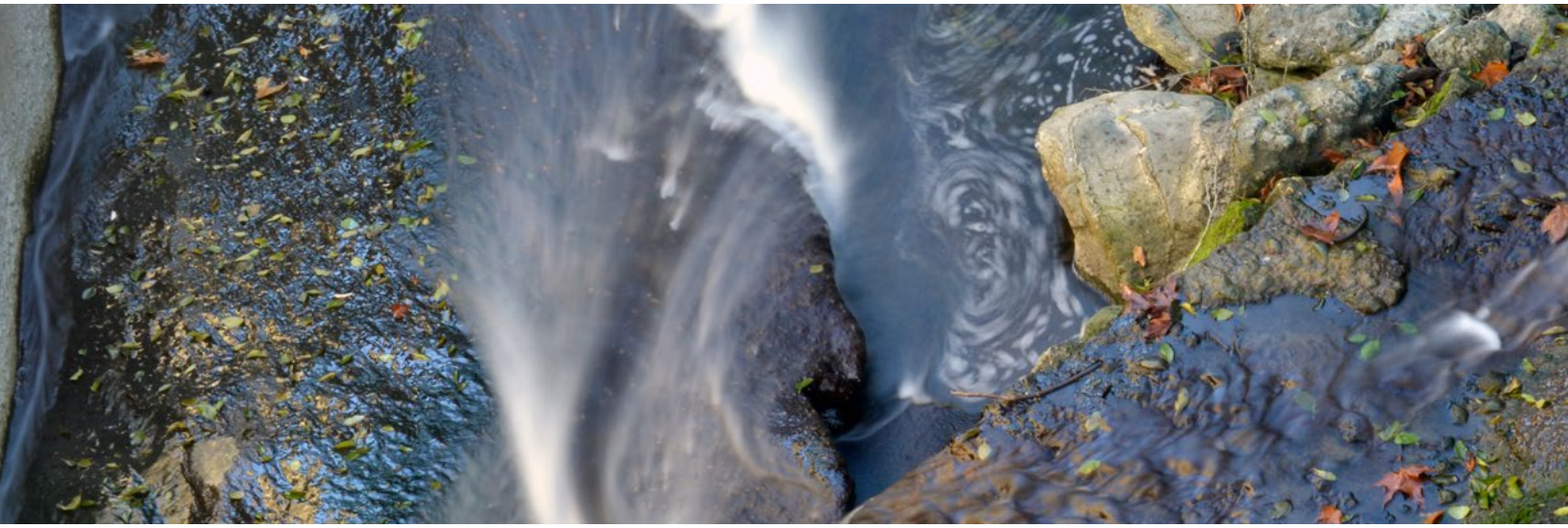
In total, San Jose Water facilities within the Los Gatos Creek Watershed include five reservoirs, seven intake structures, water distribution pipelines, several access roads, nearly 100 roadside culverts, and approximately 6,000 acres of land.

Watershed Study

In 2018, San Jose Water retained a professional engineering consultant with specialized expertise in biological monitoring, watershed hydrology, and hydraulic modeling to collect and evaluate data on the flora and fauna that are present in SJW's watershed. The study will span several years and the data will be used to establish best management practices for SJW's water releases from its reservoirs. These releases, in addition to being a critical source of water for SJW's customers, also ensure that SJW continues to protect California endangered species and species of concern that rely on water being available at critical times. This study stems from a voluntary collaboration between SJW and the California Department of Fish & Wildlife and will result in significant additional knowledge on the natural resources present in SJW's watershed and agreements on how best to protect these resources in perpetuity.

Red Legged Frog

Santa Cruz Salamander



CLOSED-LOOP WATER MAIN FLUSHING

During the recent multi-year drought, flushing activities were restricted to minimize water use for the cleaning of mains. In 2014, SJW commissioned a Neutral Output Discharge Elimination System (NO-DES) flushing truck in order to continue implementing our main flushing program in a way that also conserved water. Instead of flushing water to the storm drain as is the common practice in the industry, the NO-DES equipment is used to filter sediments flushed from the distribution system, add disinfectant if needed, and return the water to the distribution system in a sanitary closed loop.

With this technology, SJW has been able to increase its productivity and SJW now averages over 20 pipe miles of flushing per month with little to no water waste. This is just one way SJW optimizes distribution system water quality while also being mindful of the importance of conservation.

Flushing Truck

With this technology, SJW has been able to increase its productivity and SJW now averages over 20 pipe miles of flushing per month with little to no water waste.

SUSTAINABLE WATER SUPPLY PORTFOLIO

Sacramento River Delta

The main sources of water for SJW are purchased treated water, groundwater, local surface water, and recycled water.

San Jose Water has a diverse water supply portfolio and is always investigating other opportunities to secure redundant supplies of water and support long-term projected population growth in our region.

Population - Current and Projected						
	2015	2020	2025	2030	2035	2040
Population Served	982,750	1,034,396	1,087,273	1,142,484	1,201,289	1,262,356

Despite the growth in population, water use has been fairly stable due to conservation, low flow fixtures, and shrinking landscapes in our service area. A slight increase in water use is projected in the future as most residents take the necessary steps to address conservation on their individual properties.

Total Water Demands in Millions of Gallons						
	2015	2020	2025	2030	2035	2040
Potable and Raw Water	34,729	45,817	47,328	48,927	50,663	52,486
Recycled Water Demand	640	1,327	2,233	2,721	2,727	2,727
Total Water Demand	35,369	47,144	49,561	51,648	53,390	55,213

The main sources of water for SJW are purchased treated water, groundwater, local surface water, and recycled water.

PURCHASED TREATED WATER

In 1981, SJW entered into a 70-year master contract with Santa Clara Valley Water District (SCVWD) for the purchase of treated water. SCVWD is Santa Clara County's Water Management Agency, and is responsible for both water supply and flood control in the county. SCVWD is governed by a seven-member board of directors, elected from equally divided voting districts in Santa Clara County. SCVWD is strictly a wholesale supplier, serving both investor-owned and municipal retailers.

Purchased water is treated at one of three SCVWD-operated treatment plants (Rinconada, Penitencia and Santa Teresa) each located in Santa Clara County within SJW's service area. Rinconada feeds the West Pipeline, and Penitencia and Santa Teresa feed the East Pipeline. SJW has numerous connections on both pipelines that connect its water distribution system to the SCVWD treated water through meters. Typically 50 – 55% of all SJW source of supply is through this purchased treated water. The plants are fed primarily from supplies imported from the California Delta from both the State Water Project via the South Bay Aqueduct, and from the Federally-owned Central Valley Project via San Luis Reservoir and the San Felipe Project. The secondary source of water for the plants is runoff captured in four of the District-owned reservoirs located in the County.

GROUNDWATER

SJW draws water from the Santa Clara Subbasin in the northern part of Santa Clara County. The basin is twenty-two miles long and fifteen miles wide, with a surface area of 225 square miles and an operational storage capacity estimated to be 350,000 acre-feet. The basin is managed by SCVWD and is both naturally and artificially recharged. Artificial recharge is carried out by capturing winter runoff in a series of reservoirs located in the mountains east and west of Santa Clara Valley. This water is released to infiltration ponds located near the edges of the valley in the unconfined portions of the aquifer. SCVWD also operates a series of raw water pipelines and canals that allow them to use excess imported surface water to recharge the aquifer via the infiltration ponds.

San Jose Water currently has 92 active wells pumping this excellent water source to the water pipe network. Typically 35 – 40% of SJW's water supply comes from groundwater. During drought years or emergencies, wells can be heavily depended on to supply water. During normal years wells are pumped in a sequence and manner to prevent land subsidence (sinking). Groundwater serves as the contingency supply during droughts when less local and imported surface water is available. The volume of water stored in the aquifer represents about a three-year supply when drought conservation measures are employed.

SURFACE WATER

SJW has pre-1914 surface water rights to raw water in Los Gatos Creek and tributary streams in the Santa Cruz Mountains. In 1914, the Water Code was adopted and it grandfathered in all existing water entitlements to license holders. SJW has upgraded the collection and treatment system that draws water from the watershed and has the capacity to treat water up to 11,200 Acre-feet/year (over 3.6 billion gallons) for an average rain year.

SJW Recycled Water Project

SJW has two water treatment plants to treat surface water from the local watersheds. The Montevina Surface Water Treatment Plant is the primary supply source for the Town of Los Gatos and the surrounding communities. SJW recently completed a substantial renovation of the Montevina plant which was originally commissioned in 1970. More details regarding that project can be found later in this report.

The Saratoga Surface Water Treatment Plant provides water to the Saratoga area and is also a microfiltration membrane plant. It is scheduled for an upgrade over the next 5 years. Ten percent of SJW's water supply is typically provided by treatment of local surface water at SJW's Montevina and Saratoga water treatment plants.

RECYCLED WATER

South Bay Water Recycling (SBWR) has been serving Silicon Valley communities since 1993 with a sustainable, high-quality recycled water supply. SBWR was created to reduce the environmental impact of freshwater effluent discharge into the salt marshes located at the south end of the San Francisco Bay, and to help protect two listed species: the California clapper rail and the salt marsh harvest mouse.

In 1997, SJW entered into a Wholesaler-Retailer Agreement with the City of San Jose to provide recycled water to SJW's existing and new customers with locations close to SBWR recycled water distribution facilities. Under this agreement, the City of San Jose is the wholesaler and SJW is the retailer.

Recycled water helps to boost the supply during dry years. The supply is also less susceptible to changes in hydrology. Participating customers receive recycled water at a discount

and are not subject to voluntary and mandatory drought restrictions. The overall customer base benefits since the amount of recycled water used by others reduces the demand on potable water by a 1 to 1 ratio. Therefore, more potable water is available to the overall customer base. Recycled water is important to the company's water supply portfolio since both SJW and SCVWD rely on recycled water and conservation to meet future demands and growth in the County.

Currently about 2,000 acre-feet/year of recycled water (650 million gallons) is being supplied by SJW to its customers for landscape irrigation, toilet flushing and industrial uses.

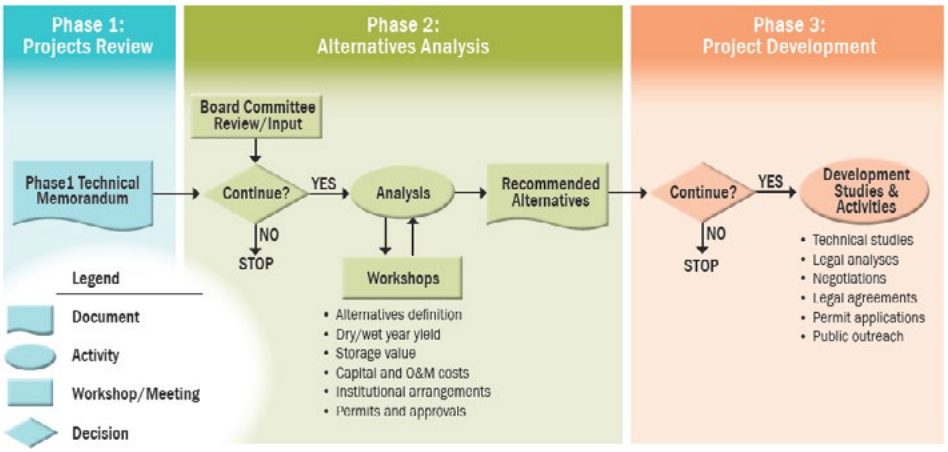
OTHER POTENTIAL WATER SUPPLIES

A Phase 1 Regional Water Supply Project Review was performed by SJW to identify water supply projects in the region that could provide SJW with a water supply development opportunity, an investment opportunity, and/or a combination of the two. More specific objectives of the Phase 1 Study included researching a broad range of planned or active water supply projects (long list) within the region using publicly available information, and screening those projects to create a prioritized (short list) of projects to serve as starting point for further investigation and evaluation by SJW. The figure to the right shows the next steps in identification of possible new water supply sources for SJW.

Water Supplies Projected (in millions of gallons)

Water Supply	Additional Details	Projected Water Supply Report To the Extent Practicable				
		2020	2025	2030	2035	2040
		Reasonably Available Volume				
Purchased or Imported Water	Potable Water	24,983	25,867	26,803	27,820	28,887
Groundwater	Potable Water	17,648	18,273	18,934	19,651	20,405
Surface water	Potable Water	3,130	3,130	3,130	3,130	3,130
Surface Water	Raw Water	56	58	60	62	64
Recycled Water		1,327	2,233	2,721	2,727	2,727
	TOTAL	**47,144**	**49,561**	**51,648**	**53,390**	**55,213**

Notes: From SJW's 2015 Urban Water Management Plan. Projected potable water supply volumes based on recent historic usage and projected population increases in the service area per the Census Bureau



Water Supply Project Review Process

CANYON LAKE WATER SERVICE COMPANY DIVERSE WATER SUPPLY

CLWSC provides water service to a large portion of Comal County, Texas, and a portion of Blanco County, Texas. It also provides service to a community that spans Hays and Travis Counties, Texas. The company's primary water sources are surface water allocations from the Guadalupe River, Canyon Lake, and Lake Austin, as well as groundwater from the Trinity Aquifer.

CLWSC has contractual allocations totaling 7,102 acre-feet/year of surface water. These allocations are made by two regional authorities. CLWSC receives 6,130 acre-feet of raw water and 722 acre-feet of treated water from the Guadalupe-Blanco River Authority. All of this water is pumped from diversion points within Canyon Lake and on the Guadalupe River to three surface water treatments plants (WTP): Triple Peak WTP, Park Shores WTP and Sybil Lightfoot WTP. These WTPs have estimated daily treatment capacities of 2.5 Million Gallons per Day (MGD), 4.0 MGD and 0.5 MGD, respectively. The balance of 250 acre-feet comes from Lake Austin and is allocated to CLWSC by the Lower Colorado Regional Authority. This water is treated by the West Travis County Public Utility Agency and delivered to the Deer Creek system which serves portions of Hays and Travis Counties. This system has a storage capacity of 100,000 gallons.

Groundwater from the Trinity Aquifer is provided via sixty-seven water wells of which sixty-three are located within Comal County, Texas, four are located in Blanco County, Texas. Thirty-five wells are active, twenty-three are standby, and ten are for emergency use. With regard to CLWSC's groundwater sources, annual precipitation plays a major role in recharge, as does localized faulting and flow from Cibolo Creek and the Guadalupe River. Total recharge to the Trinity Aquifer from 1992 to 2004 in Comal County was estimated by the engineering firm BTS of Texas to be an average of 79,195 acre-feet/year. Based on recharge estimates and long-term groundwater monitoring data, the projected withdrawal of water by CLWSC from the Trinity Aquifer over the next two decades is entirely sustainable. CLWSC works to ensure sustainability by continuously monitoring water levels, withdrawal rates, and recharge rates through its monitoring well network which is equipped with continuous data recorders.

Shoreline of Canyon Lake

CLWSC works to ensure sustainability by continuously monitoring water levels, withdrawal rates, and recharge rates through its monitoring well network which is equipped with continuous data recorders.

WATER QUALITY

SJW Water Quality Inspector uses a dedicated sampling station to monitor distribution system water quality parameters.

CERTIFIED TESTING

SJW and CLWSC conduct thousands of water quality tests for several hundred different parameters each year at state certified laboratories to ensure that our water meets all state and federal drinking water standards. Due to new regulations, this year SJW will be sampling each of its wells and every treatment plant source every quarter to further ensure the safety of our water supply. In addition, SJW routinely participates in studies sponsored by industry trade associations, such as the American Water Works Association, to evaluate contaminants of potential concern and ensure that SJW is ready to address these should the need to do so arise.

PARTNERSHIP FOR SAFE DRINKING WATER

SJW Continually reviews its operations and treatment processes to yield increased efficiencies and enhancements to water quality. To assist in this continuous improvement process, SJW became a member of the Partnership for Safe Water Distribution System Optimization program in 2012. This program assists participating utilities in assessing and benchmarking their performance in 85 operational categories, identifying areas where improvements can be made, and planning changes to complete the improvements.

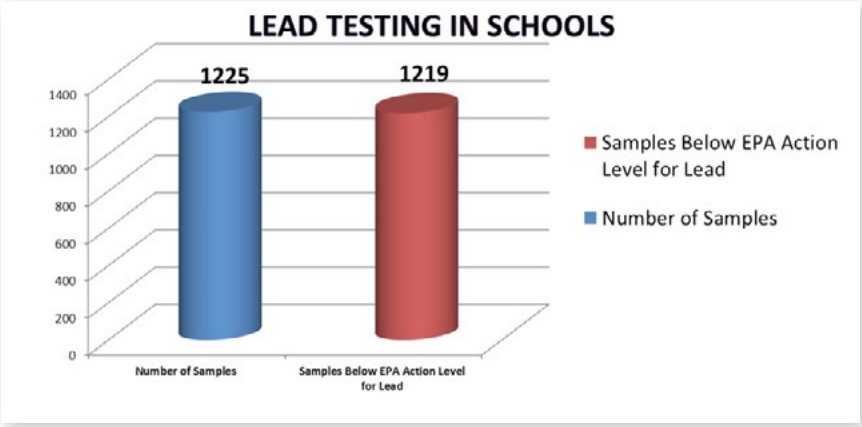
SJW accepts the Safe Water Partnership Director's Award in 2014

Participation in the Partnership for Safe Water program allows the company to attain a higher level of performance than the minimum standards prescribed by regulatory requirements. While SJW's water quality meets all Federal and State regulatory requirements, the optimization program provides additional goals that build on those requirements as well as facilitating improvements in overall customer service and system reliability. For instance, the Partnership for Safe Water sets numerical targets and measurement requirements for chlorine residuals and distribution system water pressures that are more stringent than those specified by regulations.

After completing a rigorous and comprehensive assessment of its operations, SJW's efforts cleared a peer review committee to be awarded the Distribution Program Directors Award in 2014, and every year since. SJW was among the first utilities in the nation to earn this award, and remains committed to making continuous improvements, with customers and water quality as focal points, to ensure high quality and reliable water service. SJW is now working towards full optimization and compliance with the Partnership goals as the distribution system improvements are completed.

LEAD TESTING IN SCHOOLS

In January 2018, Assembly Bill 746 went into effect requiring water utilities to collect lead samples in all daycare, pre-school, and kindergarten through 12th grade schools on public property to ensure students have access to safe drinking water. If a private school wishes to have their water sampled, the head of the school may also request lead testing. San Jose Water has sampled 277 public and private schools within the greater San Jose area. Very few schools had samples that exceeded the Action Limit of 15 µg/L or part per billion (ppb) for lead. In these instances, SJW staff worked closely with the school to provide additional sampling and support in locating the source, as well as offering ideas for corrective actions, and taking follow up samples to verify the effectiveness of actions taken. All repeat samples collected after corrective actions were taken showed that the lead concentration in the water was below the EPA action level. Based on these results, school officials as well as parents can have full confidence in the quality of water being served on campuses.



MONTEVINA WATER TREATMENT PLANT IMPROVEMENT PROJECT

SJW has recently completed a comprehensive improvement project at its Montevina Water Treatment Plant (Plant). Key upgrades include conversion to an ultrafiltration membrane process equipped with enhanced coagulation, flocculation, and high rate sedimentation. The upgrade of the direct filtration plant was driven by the need to modernize a plant commissioned in 1970 and built for a million dollars, a bargain even in 1970 dollars.

While the original Plant's simplicity ensured its ability to treat water with no major upgrades for over 46 years, the Plant's older design and technology restricted it to treat raw water with turbidities of less than 15 NTU to ensure compliance with the LT-2 Enhanced Surface Water Treatment Rule. This treatment limitation resulted in lower water production than would be possible if the Plant were able to treat water during storms when turbidities can routinely reach 100 NTUs for up to 24 hours. While the original Plant was nominally a 30 MGD plant, high raw water turbidity resulted in reduced production.

SJW selected a progressive design-build approach to upgrade the plant. This streamlined the design and construction processes and improved construction management on a very small site, re-purposing of several civil structures with remaining life, and minimizing shutdowns which were timed around high production periods. It also allowed SJW staff to be actively involved in the plant design and construction process, ensuring the best value for the tight budget authorized by the California Public Utilities Commission.

The progressive design-build process has allowed SJW and HDR, its design-build firm, to collaborate on the membrane selection for the Plant, perform a proof of performance for the membranes selected, and make several design changes as the operational implications of the evolving design became better understood by SJW. Some of the changes that were incorporated included creating sufficient administrative work space, adding space for an analytical laboratory in the Membrane Building, and redesigning the Solids Handling Facility to provide the ability to handle peak solids production during wet weather without storage or the need to arrange for multiple dewatered sludge pickups on any given day. Additional improvements included security enhancements, the ability to remotely control the operation of and the access to the Solids Handling Facility, and the re-purposing of the old lagoons to serve as emergency storage for the settling basins sludge in the event of equipment failure or sustained raw water turbidities in excess of 100 NTU.

Inside the Montevina Water Treatment Plant

Based on the SJW/HDR design-build team's review of an analysis by HDR and a successful proof of performance test, the team unanimously selected BASF/inge ultrafiltration membranes. The multibore® inside-out design of the membranes, made of polyether sulfone (PES), offer the advantage of being robust resulting in zero to very low breakage under projected normal operating conditions of the Membrane Plant. Each membrane fiber is made of 7 bores with a diameter of 0.9 millimeter and a filtration layer pore size between 10 and 20 nanometers. A surrounding highly porous foam layer supports and protects the fibers. The hydrophilic characteristic of the membranes translates into lower transmembrane pressures and lower filtration energy costs compared with other membranes.

While the progressive design-build process has afforded SJW with the ability to build the largest PES membrane filtration plant in the US, this accomplishment was only possible because of the extraordinary dedication of the SJW and HDR staff and their ability to cooperate under the pressures of tight deadlines and budgets. Since its commissioning in December of 2017 the Plant has received the American Society of Civil Engineers-San Francisco Section' s Environmental Project of the Year (2018) and the National Association of Regulatory Utility Commissioners' 2018 Innovation Award for Water.

NARUC
National Association of Regulatory Utility Commissioners

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Since its commissioning in December of 2017 the Plant has received the American Society of Civil Engineers-San Francisco Section' s Environmental Project of the Year (2018) and the National Association of Regulatory Utility Commissioners' 2018 Innovation Award for Water.

BASF/inge multibore® membrane

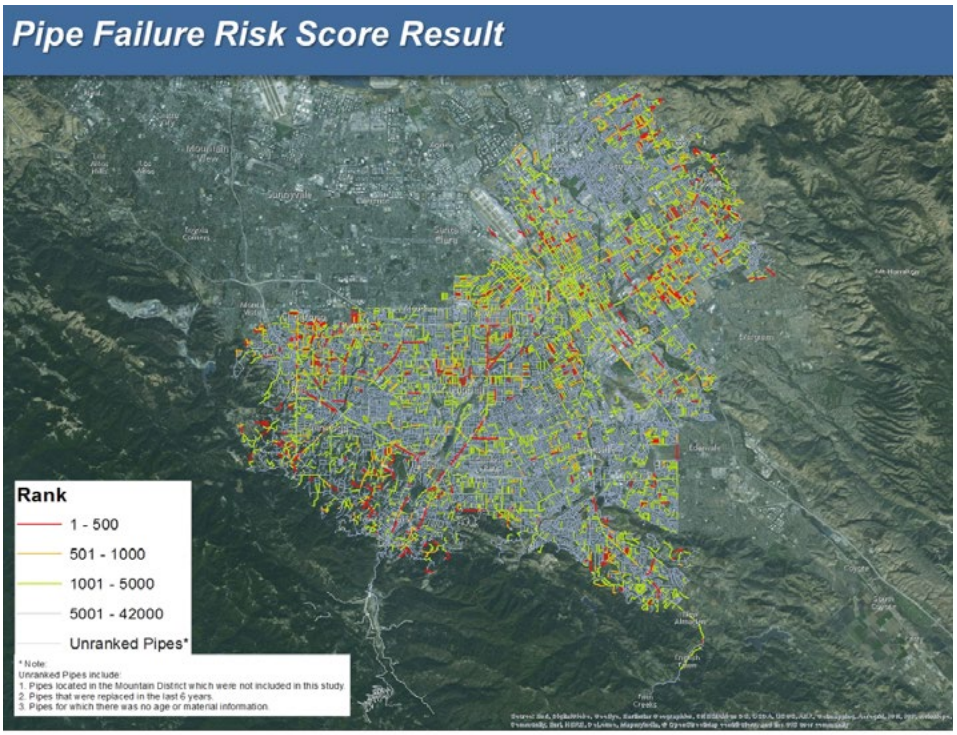
SUSTAINABLE INFRASTRUCTURE REPLACEMENT

INFRASTRUCTURE STUDIES

San Jose Water is smartly investing in replacing infrastructure such as pipes, tanks, pumps, wells, and other major infrastructure at a sustainable rate. What does that mean? It means that for an older utility like SJW, it is prudent to replace the major components at the average rate of failure – scientifically prioritized by which asset is most likely to fail tempered with a determination of the consequence of failure.

A detailed life expectancy analysis (including development of survivor curves) was conducted for each SJW asset and major class within that asset to determine the ideal rate of replacement for each asset class. SJW's pipes have an average life expectancy of a little less than 100 years, which results in a 1/100 or 1% rate of replacement (24 of 2400 miles) per year. Tanks, pumps and wells have different replacement rates depending on their life expectancies. This sustainable rate of replacement provides the best outcome for ratepayers because the level of service will remain the same or improve when prioritized correctly. For pipes this means that the number of leaks will remain the same or only increase nominally due to the average age of the non-replaced pipes increasing.

A prioritized ranking was developed that provided the guidance and framework for all of the major SJW assets. Every pipe, tank and pump is prioritized for replacement based on the detailed scientific analyses that include the probability of failure and the consequence of failure developed in infrastructure studies known as Tactical Asset Management Plans. These plans are part of a larger Asset Management Plan for the SJW organization.



SJW's Pipes are Ranked from 1 to 42,000 for Replacement

BUDGET PROCESS

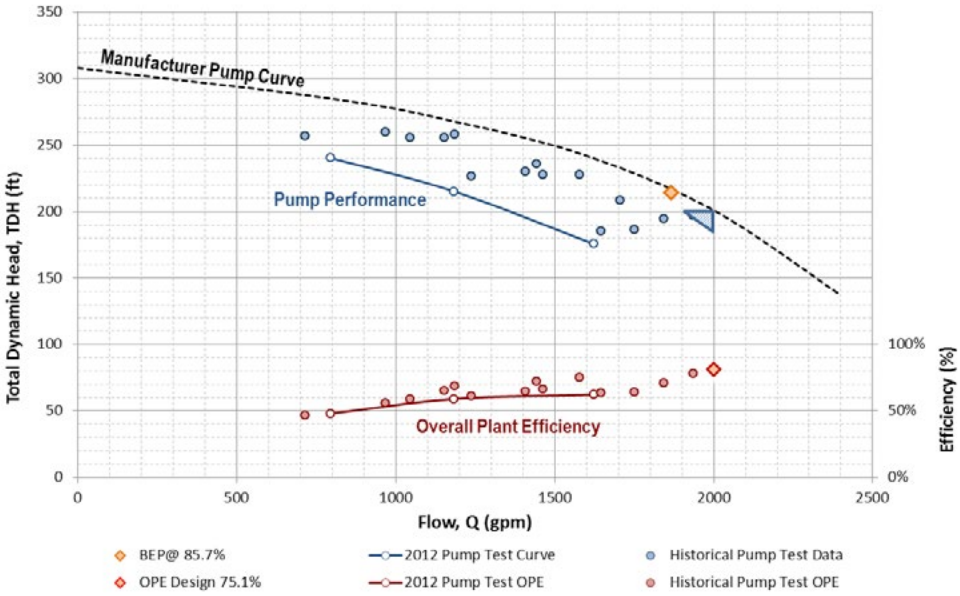
The Tactical Asset Management Plans (infrastructure studies) form the basis of the projects needed to be performed and are packaged into a three year rate case submittal to be approved by the California Public Utilities Commission (CPUC). The CPUC evaluates every project and determines the approved project mix and funding amount. The figure below shows how detailed infrastructure studies leads to projects:

Tactical Asset Management Plan
Scientific based studies to determine rates of replacement and overall prioritization.

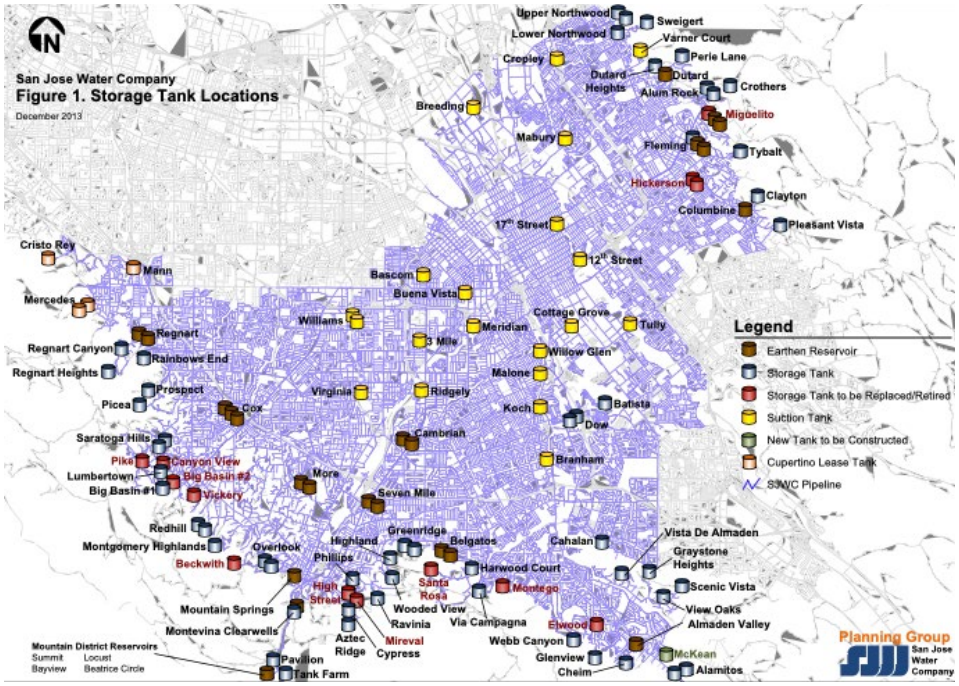
Long Term Planning and 3-6 Years of Rate Case Budgets
Specific projects identified for CPUC rate case approval funding every 3 years.

Annual Budget
Projects funded, surveyed, designed, and built per plans.

Other representative infrastructure study figures:



Sample from Pump Study showing declining pump performance



General location of SJW's numerous tanks

Other representative infrastructure study figures:

BASCOM AVENUE STATION — **SAN JOSE WATER COMPANY**

2014 Well Station Information

Bascom

Well Information

Well #	Status	Spec. Cap.	GPM	HP	Drilled	Retired	Zone	Direct Pump	Pump Year	Motor Year
1	Retired	-	-	-	1930	1984	-	-	-	-
3	Active	42	1550	125	1931	-	Cambrian	No	1988	1989
4	Active	83	2050	125	1948	-	Cambrian	No	2008	1985
5	Active	52	1700	125	1957	-	Cambrian	No	2007	1999
6	Active	43	2300	125	2007	-	Cambrian	No	2007	2007

Storage Capacity

Type	Gallons	Installed
Concrete Tank	42,000	1927

Booster Pump Information

Booster #	GPM	HP	Type	Year
B-1	1860	75	Horizontal	2003
B-2	2000	75	Horizontal	1951
B-3	2500	250	Submersible	1980

From SJW's Well and Groundwater Study

MAINTENANCE PROGRAM

Proactive Equipment Maintenance and Performance

San Jose Water appreciates the importance of an effective water distribution pump and motor maintenance program. One of the most important elements of this program is the annual pump performance-testing program. With over 300 pumps in the SJW distribution system, and a goal to perform a comprehensive 3-point efficiency test for each unit every 2 years, it is one of the most aggressive programs of its kind in the industry. This test data is used to determine the overall pumping efficiency for each unit in the distribution system. This efficiency data, and other inspection information, is then used to prioritize and plan equipment refurbishment or replacement necessary to maintain target operational efficiencies throughout the water distribution system. When replacement is necessary, SJW Operations and Engineering staff coordinate on the evaluation and selection of the most efficient equipment to be installed in each instance.

A number of other proactive maintenance and inspection activities support SJW efforts to operate equipment efficiently and maintain a high level of operational reliability, including:

- Motor, cable and connections inspection and megger testing
- Motor control center inspections and thermal imaging
- Pump control valve inspection and testing
- Pump and motor lubrication

With over 300 pumps in the SJW distribution system, and a goal to perform a comprehensive 3-point efficiency test for each unit every 2 years, it is one of the most aggressive programs of its kind in the industry.

ASSET MANAGEMENT PROGRAM

San Jose Water Culture of Asset Management and Stewardship

San Jose Water recognizes asset management as a fundamental core competency that extends to all aspects of our business. SJW will rely on asset management principles guided by our values and strategic building blocks to help inform business decisions and strategies. Our Asset Management Program (AMP) engages all levels of the organization and is designed to enable SJW to fulfill our mission at world class levels. SJW is building a robust and comprehensive AMP that will incorporate the management of all assets of significance.

Asset Management Approach

SJW is committed to employing transparent, data-driven, risk-based methodologies enabling robust asset lifecycle decisions that optimize the balance between levels of service, cost, and risk. Asset management principles will be integral in the development and improvement of our planning, capital investment, operations, maintenance, and funding strategies. We will continuously strive for innovation in how we manage assets and leverage cutting-edge intelligence to make effective asset decisions. SJW is dedicated to optimizing and streamlining business processes and workflows enabling the entire workforce to focus on highest value work. As knowledge and training are fundamental to a sustainable AMP, training and learning opportunities will be provided to promote a strong culture of continuous improvement and enhancement. All elements of our AMP are geared toward benefiting our customers, communities, employees, shareholders, and environment.

Sustainable Success

The ultimate aim of SJW's AMP is to fulfill the company's mission by building a framework and culture which optimizes service, cost, and risk. A sustainable and successful program will lead to long-term stakeholder satisfaction, organizational commitment to responsible stewardship, and high levels of confidence and trust in our investment decisions.

Track Record of Success and Commitment to the Future

SJW has experience and developed expertise in implementation and use of enterprise asset management systems, and effective work order management processes, as well as provided ongoing leadership development and training opportunities for management, supervisors, field technicians and crews.

Over the last several years, SJW has been recognized for its innovation and leadership in advancing asset management within the organization, as well as notable contributions to the industry. SJW technologies and best practices have been published in American Water Works Association (AWWA) and Environmental Systems Research Institute (ESRI) journals and presented at association conferences.

American Water Works Association

esri

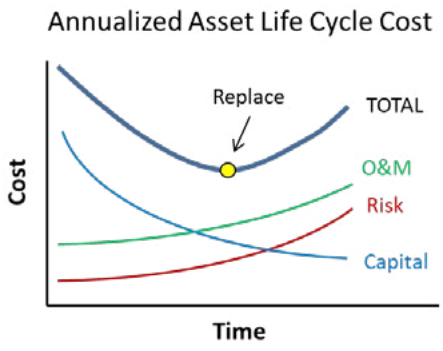
SJW Assets

SJW has numerous assets associated with the business of providing safe drinkable water to 1,000,000 residents. In addition to many buildings and thousands of acres of land, SJW has an impressive inventory that needs to be tracked and managed at a detailed level:

- 2 water treatment plants
- 2,400 miles of pipe
- 120 tanks and reservoirs
- 240 pumps
- 92 active wells
- 20,000 fire hydrants
- 34,000 valves
- 234,000 meters and service lines
- 7 dams
- Numerous buildings, land and other assets

AMP BENEFITS

An AMP chronicles the state of all recorded assets, determines the level of service for each asset, shows the likelihood of failure and consequence of failure, and calculates the best Operations and Maintenance program that leads into a capital improvement plan for infrastructure investment to optimize the time of replacement as shown here:

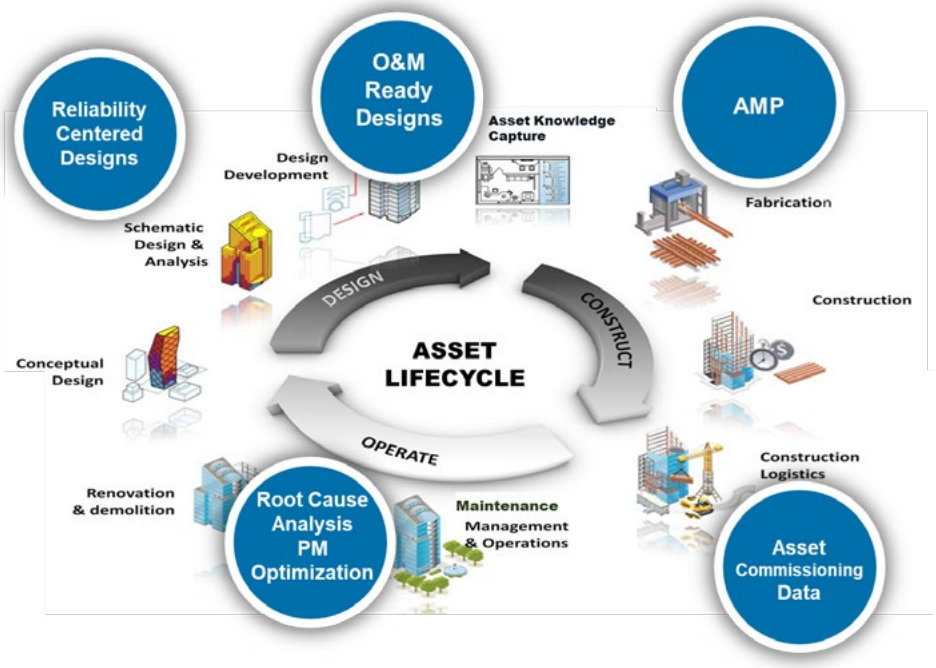


The AMP holds many benefits for SJW, including:

- Economic sustainability of SJW
- Regulatory environment (data-driven budget defense)
- Demonstrate social and environmental responsibility
- Operational efficiency
- Efficient allocation of resources (people, equipment, technology)
- Promote our brand
- Increase growth potential (better position for acquisitions)

ASSET LIFE CYCLE

From Design to Destruction, each asset in SJW's AMP has an asset life cycle associated with it, as illustrated below:

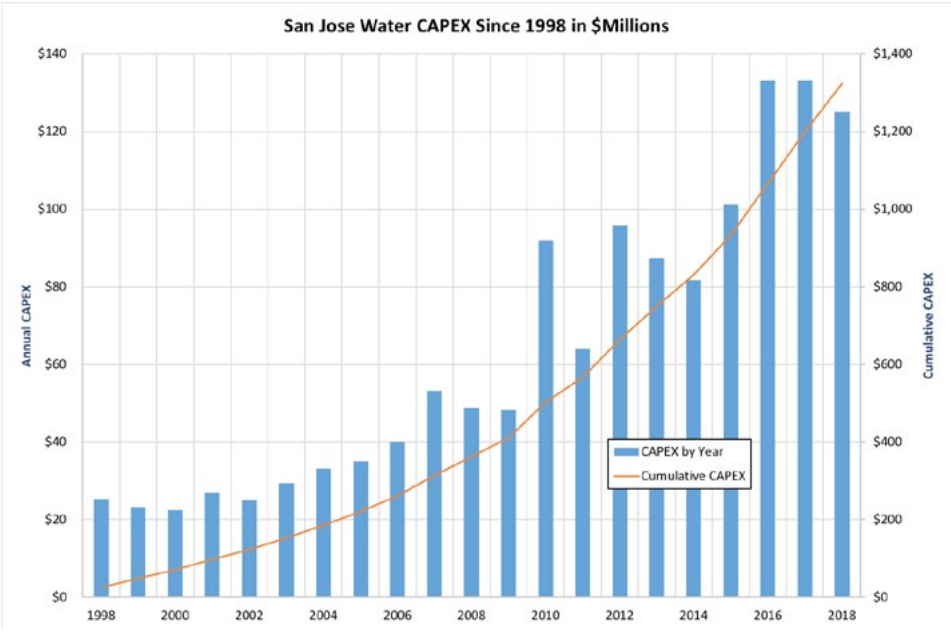


OUR INVESTMENT IN INFRASTRUCTURE

In 1988, the National Council on Public Works Improvement published its report: "Fragile Foundations: A Report on America's Public Works," which first floated the concept of a "report card" on the nation's major categories of infrastructure. In that report, the drinking water industry received one of the highest grades (B-). Ten years later in 1998, after the Federal Government announced that they would not be updating the report, the American Society of Civil Engineers (ASCE) took on the task of comprehensively evaluating the state of the nation's infrastructure, publishing its first version of the report card. The results of that study were much grimmer. The drinking water industry was given a grade of "D" which was on par with the average for all of the categories.

SJW took the 1998 report card news very seriously and immediately began the process of analyzing its transmission and distribution pipeline network, benchmarking with other water utilities, and developing its own plan for proactive upgrading of critical infrastructure. Through the years, SJW expanded its analyses and programs beyond the transmission and distribution network to include wells, pumps, motors, tanks, reservoirs and other major elements of the production, transmission and distribution network. These studies and reports have formed the basis for both establishing sustainable replacement rates for various major infrastructure systems and for prioritizing specific projects for each year.

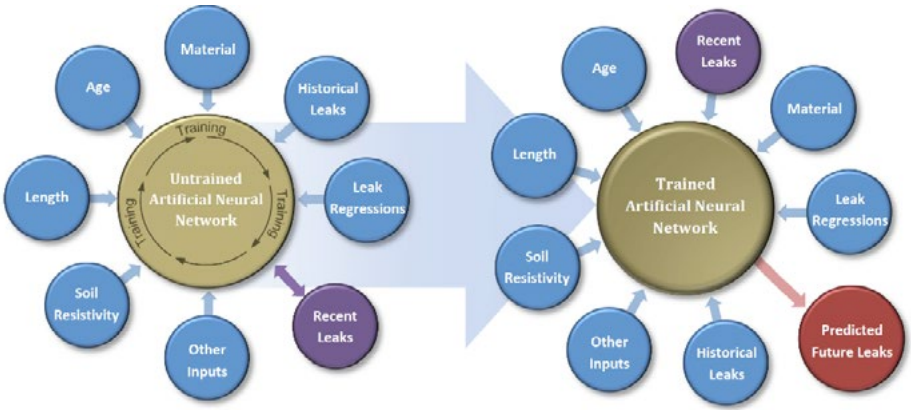
The figure below illustrates SJW's commitment to increasing its investment in infrastructure renewal to sustainable levels since 1998.



Major Infrastructure Programs

Pipeline Replacement Program:
Before 1998, SJW's pipeline replacement program averaged less than 0.5% replacement rate by length of pipe. Although early programs considered recent leak history, pipe material, fire-flow deficiency and pipe age as the primary considerations for prioritization of segments for replacement, the weighting given to any of these considerations was highly subjective.

Through the years, additional parameters have been added and various methods used to weight those parameters with a goal of more accurately predicting the segments likely to fail next. One important observation was that the factors considered for leak prediction were not necessarily independent of each other. Therefore, the most recent pipeline study utilized an Artificial Neural Network (ANN) to help find the complex relationships between the various factors. Through a series of iterations the ANN was "trained" until it was able to adequately replicate the number of actual recent leaks for each pipe. Once the ANN was trained, it was used to predict the future probability of failure. In addition to the probability of failure, the latest study also considered the consequence of failure which allowed for consideration of impacts to health & safety, transportation, businesses and system operation. Since 2006, the pipeline replacement rate has been at 1% per year (about 24 miles per year), and accounts for about 60% of the capital expenditures on an annual basis. Through the use of these advanced analysis tools, SJW has been able to successfully prioritize its pipeline replacement program to steadily reduce its apparent water loss since 2009.



Artificial Neural Network analysis determines pipes most likely to leak

2018 saw the substantial completion of several large special facilities projects as well as the construction kick-off for several others.

Special Facilities Programs: SJW has also conducted analyses and prepared reports on several other major categories of infrastructure including wells, booster pumps, earth embankment reservoirs and tanks. These analyses, which are periodically updated, demonstrate the need for upgrade or replacement of facilities as well as provide guidance for prioritization of replacements.

Projects that fall in this general category tend to be technically more complex than the linear (pipeline) projects and quite often are more complex in the aspects of permitting and environmental compliance. Because of these complexities, there can be one to several years between the start of design and substantial completion for many special facilities projects, with many projects in process at various stages of design and/or construction.

2018 Project Highlights: 2018 saw the substantial completion of several large special facilities projects as well as the construction kick-off for several others. The following are highlights of a few of those projects.

Lake Ranch Dam Outlet Replacement:

Lake Ranch Dam provides off-stream storage of excess flows from Saratoga Creek during wet periods for later release to either Saratoga Creek for treatment at SJW's 5 MGD Saratoga Microfiltration Plant or to Beardsley Creek for treatment at the newly upgraded 30 MGD Montevina Ultrafiltration Plant. Construction of the earth-embankment dam and original outlet works was completed in 1874, and therefore have been subjected to well over a century of storms, flooding, and seismic activity. Understanding the importance of Lake Ranch to SJW's exercising of its full water rights, the California Department of Water Resources, Division of Safety of Dams (DSOD) has been working closely with SJW for a number of years to help keep the facility in operation while still addressing any potential safety concerns. DSOD allowed continued use of Lake Ranch as long as the aging outlet structures were replaced and the operating level of the reservoir lowered. Because of the age and uncertain composition of the existing embankment, however, replacing the outlet structures passing through the dam was not a feasible alternative. SJW engineers teamed with design consultant Water Works Engineering and prime contractor West Valley Construction, to design, permit and construct siphon outlets to both creeks from the reservoir with floating intake structures. The remote nature of the project combined with the environmental complexities for permitting and the need to fulfill DSOD's safety concerns, made the project team approach an invaluable asset toward accomplishing this project. The old outlet structures were filled with a lightweight concrete per DSOD direction. The project was set to go to construction during the summer of 2017, however, heavy rains after seven years of drought, destroyed the access road to the site. The SJW team spent the 2017 season reconstructing the access road and the 2018 season constructing the project.

Belgatos Reservoir Replacement: The two earth embankment reservoirs totaling 9.5 million gallons (MG) in storage capacity, were originally completed at the Belgatos Station in 1957. Storage at this location is critical for providing dependable service as well as fire flow storage for the 84,000 customers of SJW's Belgatos Pressure Zone. Over their six decades of service, the reservoirs have been subjected to seismic activity, storms, flooding and wind gusts that have several times ripped portions of the roof off. The corrugated metal roofing is supported by timber structures that were alternatively subjected to water and air, providing an environment for deterioration of the wooden columns and trusses. After many years of repairing damage to the roof and supporting members, a study commissioned by SJW determined that a better long-term solution for the Belgatos site would be a pair of post-tensioned concrete cylinder tanks. A similar project was successfully completed by SJW in 2017 at another site, so the benefits of this alternative are already known. The Belgatos site is located adjacent to a local park within a residential neighborhood in the Town of Los Gatos. SJW worked with Town officials to negotiate permit terms that both protected the immediate residents and park users as well as allow SJW's contractor to proceed with the project in the most efficient manner. The contractor proposed simultaneous demolition of both reservoirs and then construction of both tanks with the anticipated saving of 4 to 6 months in overall construction time. This has the potential to both lessen the impact on the neighborhood and to save construction budget.

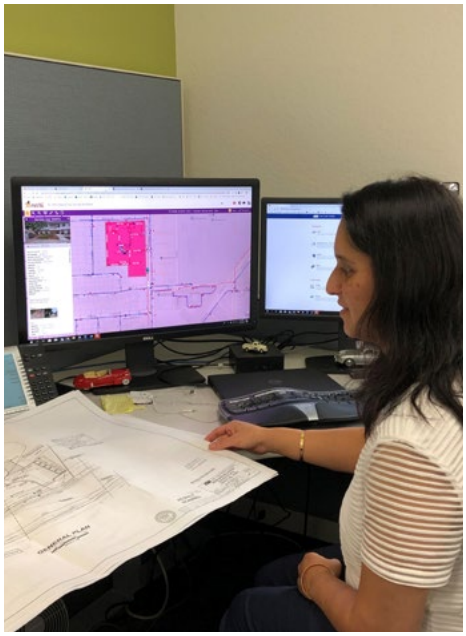
INFORMATION SYSTEMS

LEADING EDGE TECHNOLOGY

San Jose Water is committed to using technology to help build a sustainable future for our customers, communities, employees, environment, and shareholders. Implementing new technologies helps us control operating and capital costs, deliver a world-class customer experience, and above all else, build trust. Here are a few projects that have grown our sustainability footprint:

- **Advanced Metering Infrastructure (AMI) pilot** By having our water meters provide two-way communication, we are able to greatly enhance the customer experience by providing real-time feedback when a customer is using irregular amounts of water. We can also proactively deploy vehicles to stop leaks faster.
- **Digital infrastructure records** All employees have access to digital records, both in the office and out in the field. This greatly reduced the amount of paper that is consumed.
- **Infrastructure management** An advanced geographic information system (GIS) and a strong asset management program help us ensure that infrastructure installed today will be available for decades to come.
- **Acoustic leak detection** We have several thousand sensors deployed throughout our service area. These sensors help us find leaks that would otherwise go unnoticed. By fixing these leaks in their early stages, we can diminish service interruptions, reduce property damage, and minimize replacement costs.

- **Mobile workforce management** First responders are automatically routed to different events throughout the day. This automated routing reduces travel distance and vehicle emissions, increases on-time responses, and decreases crew hours and overhead.
- **Advanced energy management** We've built advanced energy management software that resides in our supervisory control and data acquisition (SCADA) system. This software ensures we are using the lowest cost energy to operate the system throughout the day.
- **Public cloud adoption** We have a goal of being "all cloud" by the end of 2022. By utilizing public clouds we greatly reduce energy consumption, shift work from maintenance to innovation, and mitigate a substantial amount of risk associated with disaster recovery.



GIS

The company implemented a GIS system in 1997 to better manage and visually capture our water system. Over the course of the years and through several upgrades and integrations, the Company has successfully produced an enterprise GIS. Our GIS is integrated with other systems such as CCB, SCADA, GPS program, and County property information reports. CCB allow us to view customer's information, SCADA

allow us to view information on our tank assets inside our station, GPS (Global Positioning System) allow us to view data that was captured using a state of the art GPS equipment on our appurtenances and County property information reports allow us to view all of the relevant information for each property in our service area. These integrations not only make more information available but also render it more efficient for our employees to do their work because GIS became one of their daily tools. Moreover, this abundant information is available at their fingertips.

INFORMATION GOVERNANCE

The purpose of the Information Governance Initiative (IGI) is to implement a modern, sustainable, comprehensive record keeping program that will result in an accurate, complete, organized and accessible company information repository to be used by an increasingly mobile workforce.

The focus of the IGI in 2016 was to manage and relocate the hard-copy records stored offsite in a basement. A detailed inventory of all records was created and the Corporate Records Retention policy was applied, resulting in the destruction (shred and recycle paper) of 2,000 boxes of expired, unnecessary documents. The remaining documents were organized, packed and transferred to a professional records storage facility. Success was achieved by reducing risk, creating a searchable inventory of company archives, and cutting storage costs by 80% annually.

In 2017, SJW purchased Hyland OnBase, an enterprise content management application and is in the process of implementing this technology across the company. This technology will:

- Increase public safety, regulatory compliance and business efficiency
- Reduce the loss of institutional knowledge from employee attrition and the need for additional employee time to manually manage paper and electronic information
- Store and organize SJW's unstructured electronic information significantly improving employee's ability to search and retrieve company information and dispose of obsolete data in a timely manner
- Reduce the creation of paper records and the consumption of paper, office supplies and equipment needed to manage paper
- Will automate and streamline repeatable paper based processes, creating efficiencies utilizing electronic forms, workflow and electronic signature functions.

Separated employee data clean-up is well underway. Separated employee email boxes no longer receive incoming messages, reducing risk. 856+ GBs (375K documents/2M email messages) of data has been identified and is being eliminated after department review/approval. This reduces risk and the volume of redundant, obsolete and trivial data under management and requiring backup.

Shredding and recycling approximately 3 tons of paper saved 51 trees and 21,000 gallons of water in 2018.

ENERGY MANAGEMENT

Sustainability is the act of efficiently and effectively meeting the needs of the present while simultaneously satisfying the needs of the future. For San Jose Water this means responsible stewardship by paying equal attention to both operational efficiency and operational effectiveness.

San Jose Water actively works to optimize both effective and efficient water production and distribution system operations through a combination of:

- proactive equipment maintenance and performance monitoring programs;
- operational strategies that balance energy efficiency, cost of production and optimization of distribution system water quality;
- application of advanced planning and engineering principals focused on the construction of an efficient, reliable and resilient water network;
- and use of modern technologies to monitor current conditions and measure performance.

STRATEGIES FOR RELIABLE AND EFFICIENT OPERATIONS

San Jose Water's distribution system consists of over 2,400 miles of water mains, as well as several hundred operational facilities. All facilities are continuously monitored and managed by a Supervisory Control and Data Acquisition System (SCADA System). Staff in the Operations and Water Quality Departments use this system to optimize operations to minimize operational costs, manage energy consumption, maintain system water pressure, and optimize water quality.

TECHNOLOGIES TO MONITOR PERFORMANCE

In an ongoing effort to gain greater operational intelligence in real-time, SJW has lead the way in adopting new technologies in automated field data collection systems. These tools allow for immediate data analysis and timely decision-making:

- **Tableau** Software that enables the visualization of data from various data sets and field monitoring technologies
- **Samsara** Industrial Internet of Things (IIoT) real-time energy data, motor operating temperatures, and pump vibration monitoring
- **Fulcrum** Highly configurable cloud-based mobile form-building software solution used for collection of field observations and condition assessments
- **Locus** Data collection solutions for water quality and environmental compliance, mapping of observed parameters trends, and automated alerts for out of range conditions

In addition to the specific programs and strategies noted above, SJW has a long history of investing in energy efficient systems, equipment and evaluating new technologies.

- San Jose Water owns and operates a 112-kW micro-hydro-turbine-generator to recover energy
- San Jose Water had adopted and continues to explore emerging technologies in the area of advanced groundwater well maintenance and rehabilitation.

- Installation of high efficiency lighting in all of its office buildings and warehouse facilities.
- Installation of high efficiency HVAC units with centralized automated control system for office buildings.
- Replace single-pane windows or install insulating window film to reduce HVAC energy use during the winter for heating, and during the summer for cooling.

The SJW distribution SCADA System communicates with and monitors the real-time status and performance of all operating assets in the systems. It also incorporates control algorithms unique to SJW to autonomously select water sources based on overall efficiencies in both energy consumption and total cost of operation. In addition, specially designed and managed control algorithms manage the time of operation of all energy-intensive water sources to maximize those operations during time periods when energy can be purchased at lowest cost for customers. Finally, water production operations are evaluated weekly by a team of distribution system operators and water quality engineers to determine the effectiveness of water source selection and water age management in optimizing the quality of water delivered to SJW customers.

Santa Clara Valley Mass Transit

MASS TRANSIT AND CARPOOLING

In 2001, the company initiated a Commuter Assistance Program (CAP) to provide employees who live more than 20 miles from a worksite with a 50% reimbursement of the cost of a transit pass. The company also provides shuttle service from the train station to the worksite. Most recently, to further encourage employees to utilize public transit, the Company increased the reimbursement to 100% of the cost of a transit pass. In 2018, a carpool program was piloted to incentivize employees to try alternatives to driving alone, thereby alleviating traffic congesting and improving air quality. A chat group was created where employees could communicate with one another expressing their interest in participating in the pilot program. Several employees have opted to participate and each carpool is provided with an allotment of fuel based on the inception point of the carpool. These programs reduce annual greenhouse gas emissions and advances the company's efforts toward achieving environmental and business sustainability.

FLEET MANAGEMENT

Every piece of equipment in the SJW fleet is designed to provide world-class service to the customers and communities we serve.

SJW Fleet Operations and Function

San Jose Water maintains a full complement of the vehicles and equipment to meet the operational needs of the water distribution system, and customers it serves. This includes leak repair crew trucks, customer service inspector vehicles, excavation and spoils handling equipment (vacuum excavators, backhoes, loaders and dump trucks), zero discharge water main flushing and filtration truck, and special facilities maintenance and repair trucks. SJW also maintains a fleet of trailer-mounted diesel powered portable water pumps and electric generators which can be deployed in response to both planned and unplanned electrical or equipment outages throughout SJW's 140 square mile service area.

Every piece of equipment in the SJW fleet is designed to provide world-class service to the customers and communities we serve. Timely response and resolution to both small and large events in the water distribution system is always a priority. Additionally, this equipment plays a key role in the effective maintenance of all the various assets in the water distribution system including pipelines, valves, hydrants, pumps, storage tanks and reservoirs.

Considerations for the design and operation of this equipment includes employee health and safety; field work ergonomics; accelerated response times; efficient job site workflows and functional field capabilities; extended deployments and operation in the field without refueling; support of field technologies to eliminate unnecessary delays due to drive-time for parts pick-up, permit processing and access to system maps and digital archive of construction as-built drawings.

A significant contributor to SJW's effectiveness as a leading potable water service provider is the commitment and capabilities of those that operate and maintain this equipment. SJW Employees take great pride in the effective maintenance and operation of the organization's assets. The equipment looks as good as it works, which is a testament to the commitment of those that operate the equipment day in, and day out.

WATER CONSERVATION

CONSERVATION INITIATIVES AND OUTREACH

Public Education and Outreach

Public information involves promoting water efficiency through various means including conservation brochures, bill

inserts, advertising, public speaking engagements and SJW's website. The goal of this program is to increase customer awareness of habits or procedures that waste water, as well as awareness of water capacity, available sources, system capacity, and treatment and distribution issues. Public information campaigns are designed to promote understanding and dialogue in the community on water conservation topics as well as to motivate customers to conserve. Public information is

provided directly by SJW and also in conjunction with SCVWD.

Public information and education programs generally have positive social impacts on the community due to increased public awareness of and cooperation with water use issues. The major impact for customers who use water efficiently is a lower water bill. Environmental impacts include reduced demand on future water supplies and lower flows to the wastewater treatment plant.

SJW distributes an average of three conservation bill inserts annually. An example of a bill insert includes the one sent by SJW each spring that promotes SJW's water audit program and the annual Water Awareness Night event. In the fall, SJW promotes Water Appreciation Day with a bill insert that focuses on reducing outdoor water use. This insert reminds customers to turn off their irrigation systems in the wet winter months.

SJW has developed a booklet called

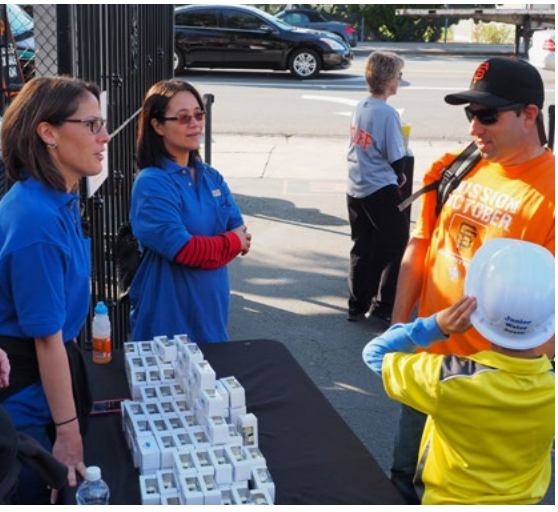
SJW has developed a variety of water conservation literature, which is available free of charge both in person and also downloadable from SJW's website.

"Guide to Using Water Wisely". This booklet describes the various conservation programs and rebates that are available to customers. It also describes how to read one's water meter, how to fix basic leaking toilet issues, and has a section on water wise landscaping.

A variety of public information relating

Excerpt from Bill Insert

SJW maintains multiple water-smart demonstration gardens open to the public. Customers can visit these gardens in person or take a virtual tour on SJW's website.



SJW Water Awareness Outreach

to conservation is available on SJW's website, including easy to implement water conservation tips. Customers can also download literature and request a water audit via e-mail. SJW's website now has new features and information about water wise landscaping, including links to a specific water wise landscaping website and plant database, as well as a "virtual tour" of SJW's public water-smart demonstration garden.

SJW also offers several public information events and services, including:

- **Water Awareness Night** SJW began sponsoring this annual event in 2002. Through a bill insert and a message on the bill, customers are invited to attend the event, which is part of a San Jose Giants (minor league) baseball game at San Jose Municipal Stadium. More than 3,000 people attended the game in 2018. SJW personnel set up various displays at the entrance to the stadium, including games for the children and conservation information for the adults. Additionally, a special gift was given to the first 500 children attending the game.
- **Water Appreciation Day** SJW began sponsoring this annual event in 2013. Through a bill insert, a message on the bill, social media reminders and a front page banner on the SJW website, customers are invited to attend the event, which is part of a San Jose State University football game at Spartan Stadium. SJW personnel set up various displays at the entrance to the stadium, including games for the children and conservation information for the adults.
- **Super Guadalupe River Run** SJW has sponsored the Super Guadalupe River Run since 2013. More than 2,000 people attend the event which is held on Super Bowl Sunday.
- **Cupertino Diwali Celebration** A fabulous community event held at Memorial Park in Cupertino, SJW joined the celebration in 2017. Now part of our yearly outreach program, this day celebrated intercultural understanding. SJW brought a new crew truck to highlight our commitment to improving technology to better serve our community. Free fruit-infused SJW water was served to visitors in eco-friendly cups.
- **Cupertino Earth Day** Serving more than 7,000 customers with conservation tips and tricks and educational information on how we protect and preserve the local environment to ensure safe, healthy water.
- **Speaker's Bureau** SJW often speaks to local service and civic groups, homeowners associations and similar organizations.

SJW continues to host a dedicated water wise landscaping website where customers can access a plant information database that includes hundreds of low water use plants as well as a photographic database of water wise gardens in the San Jose-Santa Clara County area.

In addition to these programs, SJW engages in other activities that contribute to the overall goal of reducing water waste, but are not specifically designated as conservation or water management programs. These include SJW's meter calibration and replacement program, corrosion control program, valve exercising program, and metering all service connections.

Water Efficiency Programs for Customers

San Jose Water led the industry by implementing a home and business water audit program in 1991. Currently SJW offers audits free of charge to all customers. The customer is offered both an indoor and outdoor review of their premises. Large landscape audits are also offered to all customers that have extensive irrigated property, unless the location has a dedicated outdoor meter.

The purpose of a water audit is to educate customers about the wise use of water and to make their homes and businesses as water efficient as possible. The audits usually start with our inspector demonstrating to the customer how to read the water meter for current usage and for signs of leaks. This can help customers become more aware of their own usage and be proactive when a leak is detected. An examination is then performed throughout the household to identify any water leaks and to check the efficiency of plumbing fixtures.

In addition to the indoor component of the audit, SJW has developed the landscape component of the audit program to provide an extensive evaluation of the resident's landscape irrigation system. During this component of the audit, customers are given recommendations for an irrigation schedule based on the plant materials and the irrigation system hardware. The inspector will check the irrigation system for leaks and efficiency and also offer to program the customer's irrigation controller with the recommended schedule.

The following is a summary of the items performed during a typical water audit:

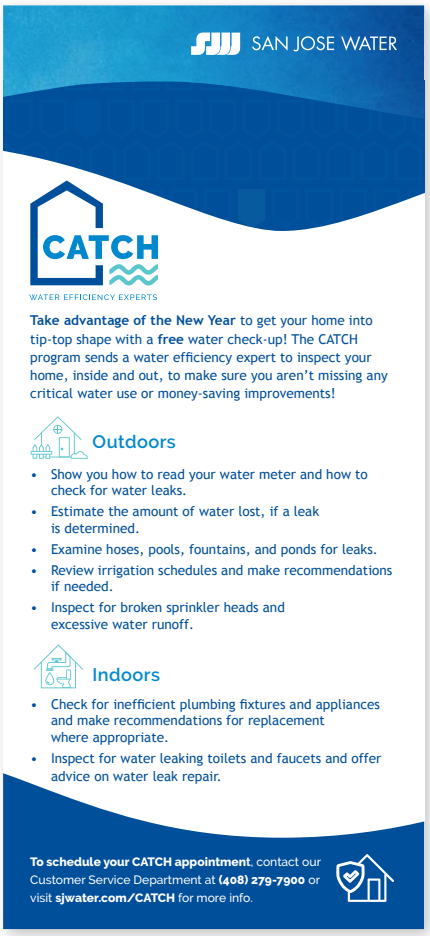
Indoors:

- Check for inefficient plumbing fixtures and appliances and make recommendations for fixture replacement where appropriate; make recommendations to rebate programs if available.
- Check for leaking toilets and faucets and inform customer of any leaks found as well as advice on leak repair.

Outdoors:

- Thoroughly check the irrigation system including inspecting sprinkler heads for proper functionality. Note and describe any excessive runoff, broken sprinkler heads, or any other leaks in the irrigation system.
- Review the irrigation schedule with the customer and make recommendations for improving the schedule, if necessary. If requested, our inspector will implement the new schedule by changing the customer's irrigation controller.
- Check all outdoor hoses bibs for leaks.

The following table lists the number of water audits performed in recent years listed by customer class:


SAN JOSE WATER

CATCH

WATER EFFICIENCY EXPERTS

Take advantage of the New Year to get your home into tip-top shape with a **free** water check-up! The CATCH program sends a water efficiency expert to inspect your home, inside and out, to make sure you aren't missing any critical water use or money-saving improvements!

Outdoors

- Show you how to read your water meter and how to check for water leaks.
- Estimate the amount of water lost, if a leak is determined.
- Examine hoses, pools, fountains, and ponds for leaks.
- Review irrigation schedules and make recommendations if needed.
- Inspect for broken sprinkler heads and excessive water runoff.

Indoors

- Check for inefficient plumbing fixtures and appliances and make recommendations for replacement where appropriate.
- Inspect for water leaking toilets and faucets and offer advice on water leak repair.

To schedule your CATCH appointment, contact our Customer Service Department at **(408) 279-7900** or visit **sjwater.com/CATCH** for more info.

Excerpt from Bill Insert

Water Audit History by Type			
	2015	2016	2017
Single-family residential audits	2,628	2,269	2210
Multi-family residential audits	1,665	490	551
Commercial audits	26	57	44
Dedicated landscape audits	6	12	0

Residential Plumbing Retrofits

This ongoing program which began in 1992 involves the distribution of low-flow shower heads and faucet aerators to customers upon request. The goal is to replace high volume plumbing fixtures with retrofit devices that are much more water-efficient until a 75 percent saturation of pre-1992 residences is obtained. SCVWD provides individual retailers with bulk quantities of low flow shower heads and faucet aerators. These devices, provided without charge, are financed through wholesale rates charged to the retailers and are available to customers during water audits or directly from SCVWD. An appropriate retrofit device is provided for each plumbing fixture in the home. For customers requesting large quantities, delivery is available by water conservation inspectors. SJW also distributes these devices through special events such as community fairs and "Water Awareness Night" activities. Additionally, the program is publicized in Company bill inserts.

Devices include:

- Low-flow shower heads (2.0 gallons per minute or less)
- Kitchen faucet aerators (2.0 gallons per minute)
- Bathroom faucet aerators (1.0 gallon per minute)

SJW implemented a new comprehensive Commercial, Industrial, and Institutional (CII) audit program in 2016 to complement the current Water Audit program. Maddaus Water Management (MWM), a consulting firm that specializes in conducting commercial water audits, oversees the new program. The program will include an onsite audit/inspection and a report that summarizes results and recommendations. MWM will be used to conduct specialized CII audits where additional expertise is required. Other CII audits will be performed by SJW staff. Included in the audits are an inspection of individual plumbing fixtures, the installation of water conservation devices, water conservation brochures, review of

landscape irrigation and a complete evaluation of water-using apparatus and processes. Considerable expertise is required to perform audits at businesses that have technical water related processes.

Irrigation accounts for a large portion of urban water use in California. Irrigation water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices.

Additional Conservation Programs

WaterFluence SJW launched a new program for large landscape irrigation sites. The program is a water budget and water survey program from the vendor WaterFluence. The program offers select irrigation sites a customized water budget. The vendor calculates the water budget based on a combination of aerial imagery and site verification of the amount and type of irrigated area. The program offers customers a monthly recurring water budget report that shows the water budget and actual water usage compared to the budget. For sites with special needs or deficiencies, a site irrigation survey is offered to the customers. This program is being funded by SCVWD and was rolled out in 2017 to customers with dedicated irrigation accounts, but may be expanded to other customers with mixed-use meters in the future.

Residential AMI Pilot Program In 2016, SJW began an Advanced Metering Infrastructure (AMI) pilot project for residential customers. This pilot consists of testing two different types of AMI systems, one cellular and one fixed-network, for two groups of residential customers of approximately 400 each. AMI provides near real-time information of water usage to customers, and will include water saving analysis resulting from real-time information and leak detection capabilities. In addition to being a study of water savings potential because of AMI, this project is an important analysis of the feasibility of installing AMI in the entire SJW service area.

Business Tabling Events Throughout the year, SJW visits local businesses as they hold various events to support water conservation and safety preparedness.

ADVANCED METERING INFRASTRUCTURE

For more than 150 years, San Jose Water (SJW) has provided reliable and efficient water service to support the vibrancy of our community. But after years of unprecedented drought and a more laser-focus on water conservation and efficiency, it was time to look at providing more information to both our utility and customers to meet today's water challenges. Advanced Metering Infrastructure can help meet that challenge.

The California Public Utilities Commission (CPUC) approved an AMI pilot project for SJW. The Santa Clara Valley Water District gave SJW two grants of $50,000 each to partially fund the AMI pilot. The goal of the grants was to assess two different transmission networks and various meter technologies. With funding and approvals in place, SJW proceeded to design and implement a study of AMI technology.

The AMI pilot began the implementation phase in 2016 with nearly 800 customers in the Willow Glen area of San Jose. Two adjacent meter reading routes were used to test two types of AMI transmission networks: Badger Meter's cellular based system and Sensus' fixed network based system. Two online portals, for both the utility and customers, had real time water usage data available. In addition, three different meters were installed

for evaluation. In both routes, water conservation benefits and customer satisfaction rates were evaluated.

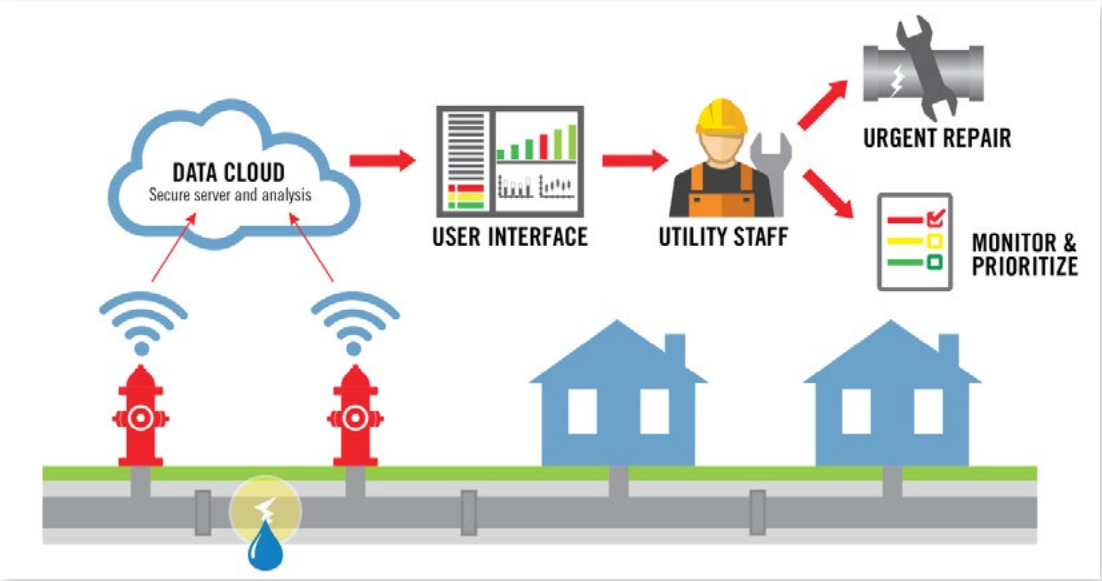
The AMI pilot ended on December 31, 2018. SJW has begun planning the business case review for system-wide AMI and anticipates submitting to the CPUC in 2019.

PROACTIVE LEAK DETECTION AND REDUCING WATER LOSS

San Jose Water is currently undertaking an acoustic leak detection logger installation effort which was started in 2017 and is scheduled for completion in 2022. The leak detection program is part of SJW's water management program intended to decrease non-revenue water (which includes leaks, fire hydrant flow, stolen water, meter inaccuracies) and particularly minimize real water losses in the system.

Main breaks are clear examples of reported leaks in which, because surfacing water is visible, actions are promptly taken. However, small pipe leaks or leaks at joints and fittings may not reach the surface, and can go undetected for long periods of time and waste large amounts of water. While SJW quickly responds to reported leaks, an effective leak detection program for non-surfacing leaks is in its early stages. SJW's leak detection program commenced in 2017 and uses automated listening devices that will assist in locating and responding to leaks before they are apparent by water that reaches the surface. In the first six months of its leak detection program, SJW has proactively found 32 leaks, and it is expected that many more leaks will be located.

EchoShore acoustic leak sensor - smart hydrant cap



Echoshore acoustic sensor deployment

In the first six months of its leak detection program, SJW has proactively found 32 leaks,

DECREASED PER CAPITA USAGE TREND

Water usage on a per capita basis has decreased substantially over the last 10 years. As part of the California reporting requirements associated with the 5-year Urban Water Management Plan, a 10-year baseline was established per the requirements. Over the 10 years from 1995 to 2004, SJW customers averaged 154 GPCD (gallons per capita per day). Accordingly, the State's 20% reduction by 2020 methodology set a goal in 2020 of 127 GPCD. San Jose Water Company has far surpassed that goal since then, and during the 2015 drought year the result was a low 96 GPCD.

Now that California has adopted a "conservation is a way of life" policy and increased regulations on water usage and mandated low flow fixtures, SJW anticipates a continued low water usage rate on a per capita basis. Even though the population will continue to increase somewhat substantially, the anticipated needs of water should increase at a much lower rate.

Retail: Demands for Potable and Raw Water - Projected

Use Type	Additional Description	Projected Water Use (MG)				
		2020	2025	2030	2035	2040
Single Family		20,673	21,355	22,077	22,860	23,682
Multi-Family		3,648	3,769	3,896	4,034	4,179
Commercial		15,761	16,281	16,831	17,428	18,055
Industrial		303	313	323	335	347
Institutional / Governmental		2,156	2,227	2,302	2,384	2,470
Sales / Transfers / Exchanges to other agencies	Resale Drinking Water	177	182	189	195	202
Other	Portable Meters	65	67	69	72	75
Sales / Transfers / Exchanges to other agencies	Resale Raw Water	56	58	60	62	64
Losses		2,978	3,076	3,180	3,293	3,412
	TOTAL	**45,817**	**47,328**	**48,927**	**50,663**	**52,486**

Notes: From SJW's 2015 Urban Water Management Plan, showing projected future water use by category

SJW Water Use Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD	2015 Interim Target GPCD	Confirmed 2020 Target
10 year average	**1995**	2004	154	140	127

Notes: SJW is on track to meet the State's 20% reduction by year 2020 goal

SOCIAL RESPONSIBILITY

San Jose Water believes that there can be no company without community and we are proud of our long-standing support of the community's social health and economic vibrancy.

San Jose Water is more than a business that has served the community since 1866. We are a family of people who care about the environment and the community in which we live and work. San Jose Water believes that there can be no company without community and we are proud of our long-standing support of the community. Our employees are blessed with a wealth of talents and a volunteer spirit that allows us to improve the lives for customers, neighbors, and employees. San Jose Water's commitment to responsible corporate citizenship includes the following initiatives:

SJW Executive Board Memberships	
Officer	**Boards and Organizations**
Willie Brown	For People of Color, Inc.- Non-profit (Board Secretary) ; Financial Administrative Support Services Board – Non-profit; City of Santa Clara Civil Service Commission
Andy Gere	National Association of Water Companies (Vice Chair); California Water Association; NAWC – Safety, Security, and Environment Committee (Chair); BAYWORK; American Water Works Association; Santa Clara Valley Water District - Retailers Committee (Chair)
Craig Giordano	Central YMCA Board of Managers; Santa Clara Valley Water District Retailers Committee - Intergovernmental Recycled Water Policy Advisory Committee
Palle Jensen	National Association of Water Companies (past Board Member); NAWC – Regulatory and Law Committee; California Water Association Executive Board Member, Political Action Committee (Chair); Santa Clara Valley Water District - Finance Committee; San Jose Lions Club; Employer Support of the Guard and Reserve (member
Jim Lynch	National Association of Water Companies - Finance Committee (Chair); California Water Association - Finance Committee (Chair); Silicon Valley Board of Directors (past Chair)
Suzy Papazian	HomeFirst (rejoining board in 2019); California Bar Association
Curt Rayer	Santa Clara Valley Water District Treated Water Subcommittee (Chair); BAYWORK Executive Committee Member
John Tang	Silicon Valley Organization Board of Directors and PAC Board of Trustees; California Water Association Member; Silicon Valley Leadership Group - Environment and Government Relations Committees; Bay Area Emergency Public Information Network; Silicon Valley/Monterey Bay Boy Scouts; San Jose Rotary Member
Eric Thornburg	National Association of Water Companies (past President); California Water Association; California Chamber of Commerce
Andrew Walters	Cupertino Chamber of Commerce (past President)

OUR PROGRAMS

San Jose Water supports a diverse array of causes and initiatives delivering education and youth enrichment opportunities, human health and services, and arts programs that enhance our everyday quality of life. We support organizations that embrace diversity and provide measurable outcomes for the communities where we do business.

- Employees at San Jose Water raise funds directly for employee volunteer causes. Those funds are matched up to $10,000 annually and awarded through the San Jose Water Employee Community Fund.
- SJW provides corporate gifts to local universities to support business and water industry educational programming up to $20,000 annually.
- SJW also has a corporate giving program that supports up to $200,000 in annual gifts to local non-profit organizations.
- San Jose Water employees participate on board and committees for non-profit organizations benefiting the entire region.

Supplier Diversity

CEO Eric Thornburg and the SJW Executive Leadership Team are focused on how we can build on our strong heritage, while best positioning the organization for the future. At San Jose Water it is our mission to be trusted professionals delivering exceptional quality water and service to customers and communities while protecting the environment and providing a fair return to shareholders.

We recognize that, in order to accomplish this mission, we must honor our core values of integrity, respect, service, compassion, trust, teamwork and transparency, while focusing on the following strategic building blocks: our customers, our community, our employees, and the environment.

Our supplier diversity strategy fits firmly within the framework of our mission, values, and strategic building blocks, representing an important part of our commitment to social responsibility.

San Jose Water is committed to continuously improving our supplier diversity program. We recognize that partnering with Disadvantaged Business Enterprises (DBEs) is an important part of San Jose Water's success. We can best accomplish our mission with a diverse supply chain that enables us to be more competitive and enhance the economic vitality of the communities we serve.

San Jose Water (SJW) has a long-standing commitment of seeking business relationships that enable us to provide our customers with excellent customer service and a reliable supply of high quality water at a fair and reasonable price.

SJW's supplier diversity program is designed to encourage, recruit, and utilize women, minorities, disabled veterans and lesbian, gay, bisexual, and trans-gendered enterprises within our supply chain. As a regulated utility within California, our supplier diversity program is based upon guidelines established by the California Public Utilities Commission (CPUC) for regulated energy and telecommunication utilities, therefore, CPUC certification is the only certification recognized by SJW.

WRAP Program

San Jose Water supports the most vulnerable in our communities by providing a low-income assistance program known as "WRAP" or "Water Rates Assistance Program."

Customers qualify for WRAP based on the same income qualification guidelines used by PG&E's CARE program. If customers already participate in PG&E's CARE program, they are automatically enrolled in the WRAP discount. Customers are also eligible based on other assistance program participation or household income guidelines.

As of the last quarter of 2018, SJW serves 18,236 customers as part of its WRAP program and continues to promote its availability through online platforms and community resource events.

CUSTOMER SERVICE

To accomplish our mission, we must honor our core values of integrity, respect, service, compassion, trust, teamwork and transparency, while focusing on the following strategic building blocks: our customers, our community, our employees, and the environment.

GOING ABOVE AND BEYOND TO MEET CUSTOMER EXPECTATIONS

Water is a local business, and the people that directly provide service to our customers are local too. This means we have a walk-in customer service office in San Jose, and our call center is there as well. Our representatives know the neighborhoods, they understand our water supply and delivery system, and they have up-to-the-minute information on maintenance and construction activities. Representatives also provide prompt and expert customer service in the field for any aspect of water delivery, with one-hour appointment windows for routine issues and immediate response for emergencies. SJW uses advanced customer communication, routing and dispatch platforms to make service delivery as seamless and as timely as possible.

Providing world class customer service is one of the most important things that we do every day. Our customer service team prides itself in delivering exceptional service in three major areas:

- **Prompt response** When customers need us either by phone or in person, we go all out to respond quickly
- **Courtesy** Customers want to be treated with dignity and respect and we listen
- **Knowledge** Customers want the right information the first time

Our teams maintain key performance measures to ensure that we meet and improve our customer experience, such as:

- **Phone response time** An abandoned call rate below 5%
- **Field response to emergencies** Response time of 30 minutes or less, 90% of the time
- **Evaluation of water quality, leaks and pressure inquiries** Experts dispatched to evaluate the potential issue and take appropriate action as needed

The company maintains a presence in the community through outstanding customer communication and outreach, providing welcome materials to new customers, an extensive water conservation program with free customer water audits, as well as an active group of employee volunteers at community events. SJW takes prides in having a significant presence in the community and sponsoring many activities within the service areas.

HEALTH AND SAFETY CULTURE

COMMITMENT TO SAFETY TRAINING

San Jose Water is committed to a strong Health & Safety Program that makes safety a core business function with the aim to protect its employees, contractors, visitors and assets from workplace incidents. Health & Safety in our business must be a part of all operations.

San Jose Water believes Health & Safety is a company value, and that accidents are preventable. Our aim is to minimize all accidents and incidences by promoting a "Zero Harm" culture. Active participation at all levels ensures our goals can be achieved.

San Jose Water endeavors to provide proper and relevant employee training, job specific safe work practices, project and personal protection equipment, operation and maintenance procedures, and safety guidelines that focus management, employee, and contractor awareness on reducing the risk of accidents and incidents in all activities.

Every level of management at San Jose Water is responsible and accountable for Health & Safety. Supervisors are responsible for developing safety conscious attitudes in themselves and in those they supervise. Employees and contractors are responsible for fully complying with all applicable Health & Safety standards and regulations, and for cooperating with management in the implementation of the Health & Safety programs, worksite inspections, incident-injury/illness investigations, and in the continuous improvement of the Safety Program.

San Jose Water management, contractors and all employees are collectively responsible to ensure compliance with local, state and federal occupational Health & Safety regulations.

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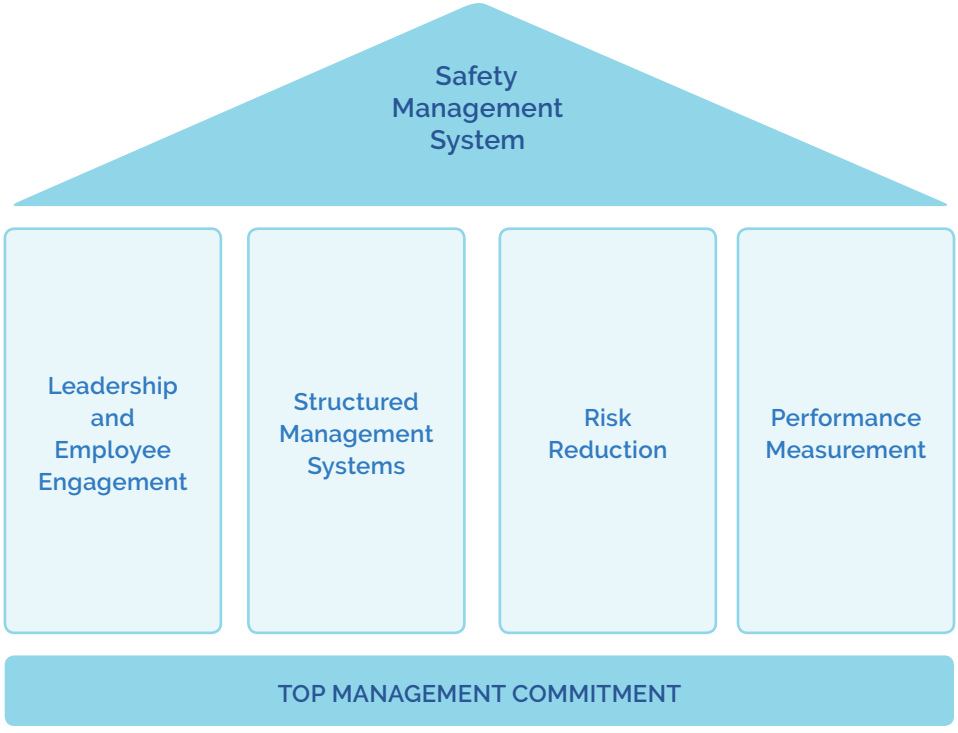

LOOKING AHEAD

OUR ONGOING COMMITMENT

Our ongoing commitment is to be true to the mission, vision and values of our company. This means that we will serve customers, communities, the environment, employees and shareholders as we endeavor to provide world-class water service. To that end, SJW has elevated its commitment to sustainability to the Board of Directors level, and this year added a chartered Sustainability Committee, which will provide guidance to the board on plans, programs and activities related to environmental stewardship, sustainability, health and safety, water supply and conservation, climate change and operational efficiency. Three or more directors will be appointed by the board and will meet at least biannually with a report out to the full board on related activities of the company.

We are extremely proud of the results we've described in the first SJW Group Corporate Sustainability Report that we've published. As our first such report, it serves as our baseline, and future reports will provide detail on the progress and results of initiatives described here, along with new opportunities to expand the stewardship entrusted to SJW.

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SJW Group

2018