

ENVIRONMENTAL SERVICES

The mission of the Environmental Services Department is to deliver world-class utility services and programs to improve our health, environment, and economy.

ENVIRONMENTAL SERVICES

The Environmental Services Department (ESD) provides recycling and garbage services, wastewater treatment, potable water delivery, stormwater management, and recycled water management. ESD also manages programs to conserve water and energy resources and achieve other environmental goals.

ESD provides Citywide coordination of efforts to protect and conserve air, land, water, and energy resources through policy development, education, and grant-seeking. This work is guided by the City's Climate Smart San José Plan and regulatory requirements.

Most ESD revenue comes from various customer fees and charges; approximately 1 percent of its budget comes from the General Fund (about \$5.2 million in 2018-19).

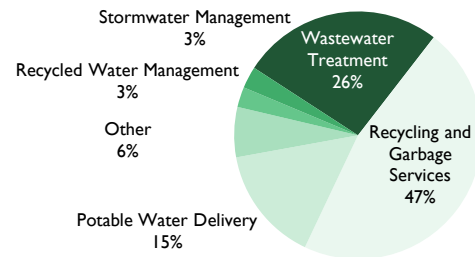
In 2018-19, ESD's operating expenditures totaled \$268.7 million, including personal and non-personal expenditures. In addition, the department was responsible for other expenditures including \$120.9 million in capital expenditures and \$2.2 million in Citywide expenditures. Staffing in 2018-19 included 550 full-time equivalent positions, a slight decrease from 2017-18 but representing a 9 percent increase from ten years ago.

RESIDENT SURVEY

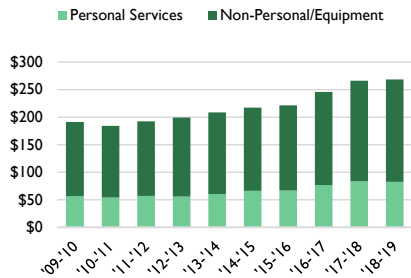
% of San José residents surveyed who rated the following as "excellent" or "good"

- 39%** Air quality
- 42%** Quality of overall natural environment in San José
- 42%** Preservation of natural areas such as open space, farmlands, and greenbelts
- 74%** of San José residents made efforts to make their homes more energy efficient during the past 12 months

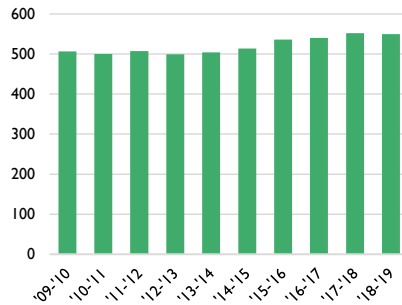
ESD Expenditures Breakdown (2018-19)



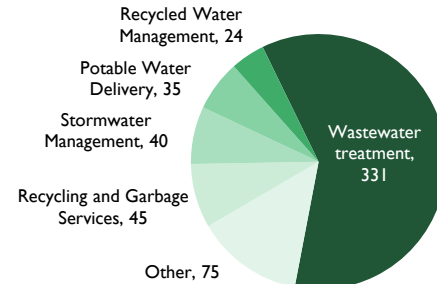
ESD Operating Expenditures (\$millions)



ESD Authorized Positions



ESD Staffing Breakdown by Positions per Service (2018-19)



ENVIRONMENTAL SERVICES

RECYCLING & GARBAGE SERVICES

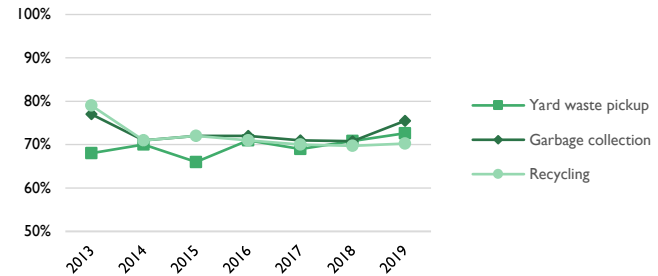
ESD provides recycling and garbage services to over 326,000 residential households in San José through contracted service providers. ESD also provides waste management programs and services for San José businesses, large events, public areas, and City facilities. It manages contracts for commercial collection and recyclables processing, organics processing, and construction waste collection services in the City. ESD's operating expenditures for recycling and garbage services was \$125.3 million.

The state monitors each jurisdiction's "per capita disposal rate" and requires that 50 percent of solid waste be diverted* from landfills. The Department of Resources Recycling and Recovery, CalRecycle, has taken a statewide approach to meet the State's goal of achieving 75 percent "recycling" by 2020.

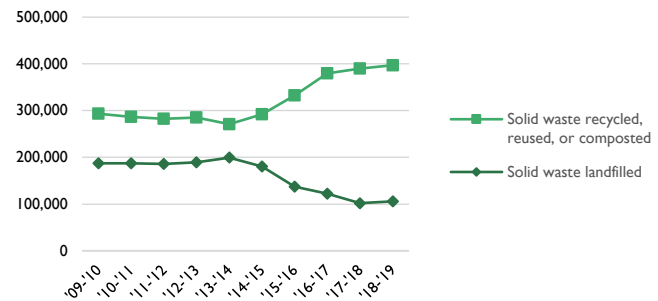
Since 2007, San José has diverted at least 60 percent of waste, including 64 percent in 2018. However, disruptions in the recyclables market may impact the City's ability to meet state diversion requirements in future years. In 2018, China implemented its "National Sword" policy, restricting the imports of recyclable materials. China also implemented tariffs of up to 50 percent on recyclable imports. California's cities have historically relied on exporting recyclable materials to China to meet state diversion goals. The City is exploring infrastructure and partnership opportunities to manage recyclables domestically and help achieve state diversion requirements.

*"Diversion" refers to any combination of waste prevention, recycling, reuse, and composting activities that reduces waste disposed at landfills. (Source: CA Integrated Waste Management Board)

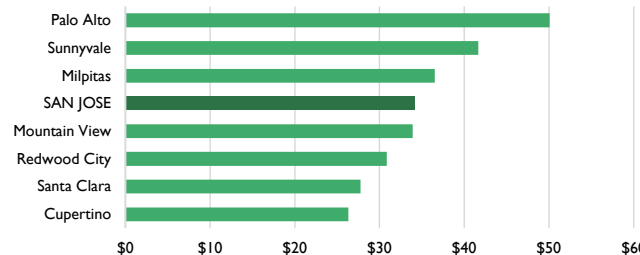
RESIDENT SURVEY
% of San José residents rating services as "excellent" or "good"



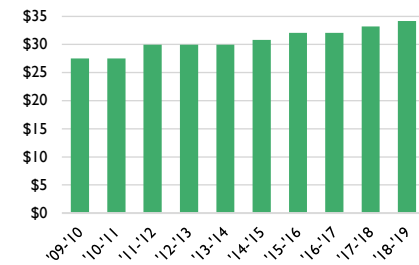
Tons of Residential Solid Waste Recycled vs. Landfilled



Comparison of Monthly Residential Garbage and Recycling Rates (2018-19)



San José Garbage and Recycling Monthly Bills (32-gallon cart)



RESIDENT SURVEY

94% of San José residents surveyed reported recycling at home "usually" or "always"

46% of San José residents rated utility billing "excellent" or "good"

Sources: Rates listed on local government websites for municipalities provided.
Note: Rates listed for all municipalities are for the 32-gallon cart size (with the exception of Sunnyvale's 35-gallon cart and Milpitas's 26-gallon cart.) Although this is San José's smallest and standard cart, some municipalities offer smaller 20-gallon bins.

ENVIRONMENTAL SERVICES

STORMWATER MANAGEMENT

The Department of Transportation operates the City’s storm drains and storm sewer system, conveying rainwater into creeks and eventually the South San Francisco Bay (see Transportation chapter). ESD manages regulatory programs, initiatives, and activities to prevent pollution from entering the storm sewer system and waterways.* These efforts protect water quality and the health of the South Bay watershed and the San Francisco Bay.

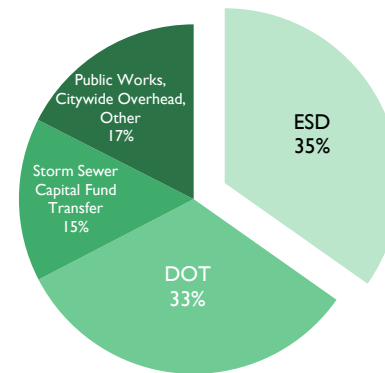
One such program is the litter/creek cleanup program. Overall, 932 creek cleanup events were held and about 892 tons of trash were removed in 2018-19. There were fewer creek clean-ups than the prior year due to reduced one-time funding. Over half of the cleanups in 2018-19 were performed by the City’s creek cleanup partners, which include the Downtown Streets Team, South Bay Clean Creeks Coalition, and Keep Coyote Creek Beautiful. The Housing Department’s Homeless Encampment Response Program accounted for about a third of all creek cleanups. ESD estimates** that the City has reduced the amount of trash discharged into receiving waters by 97 percent since 2009, exceeding the July 2019 requirement rate of 80 percent.

The annual fee for a single-family residence in 2018-19 was \$94.44. The annual fee has remained relatively level since 2009-10.

* These programs and activities are regulated by a state permit for municipal storm water systems. For more information, see the [California Water Boards' webpage](#) on the subject.

** Calculation is based on a method specified in the Municipal Regional Stormwater NPDES permit

Breakdown of Storm Sewer Operating Fund Budgeted Expenditures

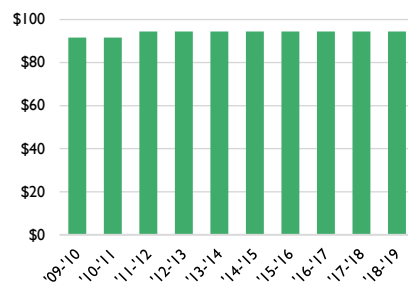


Source: 2018-19 Adopted Operating Budget

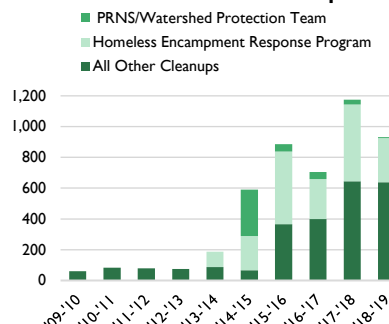
Baykeeper Consent Decree

In June 2016, the City executed a consent decree to settle a lawsuit filed by the San Francisco Baykeeper. The consent decree stipulates that the City will appropriate \$100 million over a ten-year period to implement projects intended to reduce the flow of pollutants from the City’s urban areas to receiving waters (e.g., green infrastructure).

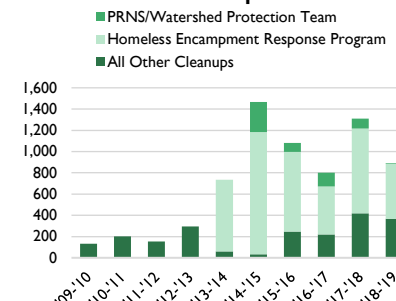
Annual Fee for Household Storm Sewer Service



Number of Creek Cleanups



Tons of Litter Collected at Creek Cleanups

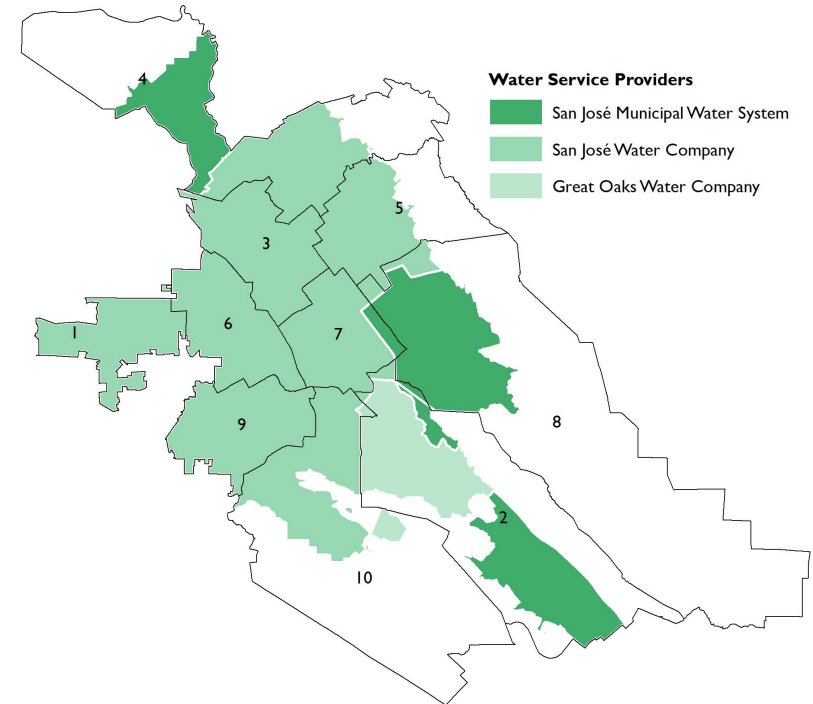


RETAIL WATER DELIVERY

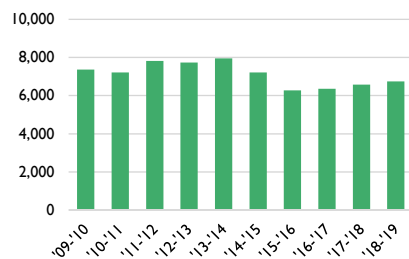
ESD operates and maintains the San José Municipal Water System (Muni Water), which serves about 26,600 customers in North San José, Alviso, Evergreen, Edenvale, and Coyote Valley. Other local San José water retailers include Great Oaks Water Company (which serves Blossom Valley, Santa Teresa, Edenvale, Coyote Valley, and Almaden Valley) and the San José Water Company (which serves Downtown, West San Jose, Alum Rock, and Almaden Valley, among others). For 2018-19, operating expenditures for retail water delivery totaled about \$40.6 million.

The average monthly water bill for Muni Water customers was \$82.51. Muni water rates have increased in recent years due to higher wholesale water rates and other inflationary costs; the increase is consistent with those of other San José retail water providers.

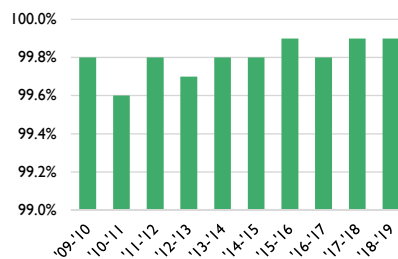
In 2018-19, Muni Water delivered 6,738 million gallons of water to its customers, down 8 percent from ten years ago. Fifty-one percent of City residents who responded to the resident survey rated drinking water delivery as "excellent" or "good"; 90 percent of residents indicated they made efforts to conserve water the past year. Muni Water met federal water quality standards in 99.9 percent of water samples taken.*



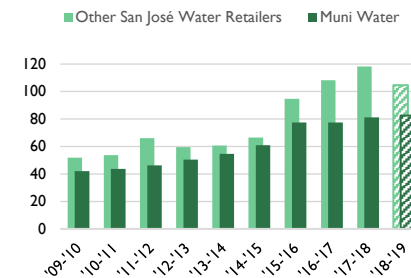
Millions of Gallons of Water Delivered to Muni Water Customers



% of Water Samples Meeting State and Federal Water Quality Standards



Comparison of Monthly Residential Water Bills



Note: Rates for 2018-19 are based on water usage of 13 hundred cubic feet (HCF) whereas those of prior years are based on 15 HCF.

ENVIRONMENTAL SERVICES

WASTEWATER TREATMENT

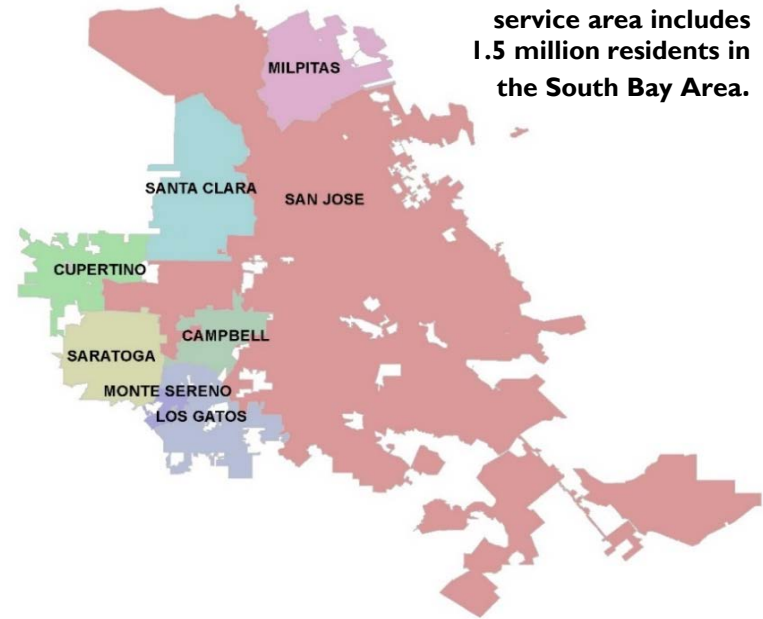
The City’s Department of Transportation maintains the City’s sanitary sewer system (see Transportation chapter) that flows to the San José-Santa Clara Regional Wastewater Facility. ESD staff at the Facility provides wastewater treatment for approximately 1.5 million residents in San José and surrounding communities. The Facility is co-owned with the City of Santa Clara; however, it is managed and operated by ESD. ESD also manages pretreatment programs to control for pollutants at their source. For 2018-19, operating expenditures totaled \$70.8 million. ESD wastewater treatment operations account for the largest share of ESD employees: 331 full-time budgeted positions out of 550 total.

The Wastewater Facility continues to meet the Regional Water Quality Control Board’s permit requirements for water discharged into the San Francisco Bay. In 2018-19, pollutant discharge requirements were met or surpassed 100 percent of the time.

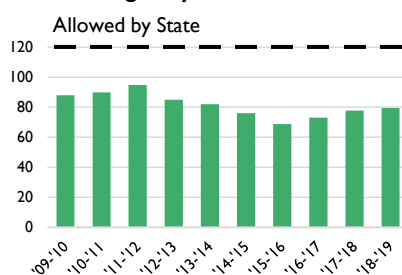
The cost per million gallons treated was \$1,367. Aging infrastructure at the Facility has required increased maintenance and capital costs. In accordance with the Plant Master Plan adopted in 2013, the City is moving forward with over \$2 billion in long-term capital improvement projects to upgrade and rebuild the facility over the next 30 years.*

* For more information, see the [Capital Improvement Program webpage](#).

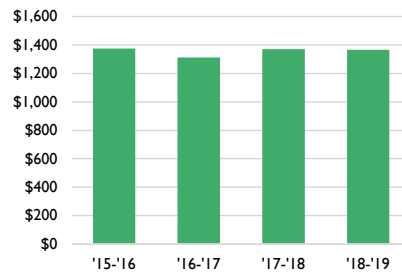
Wastewater treatment service area includes 1.5 million residents in the South Bay Area.



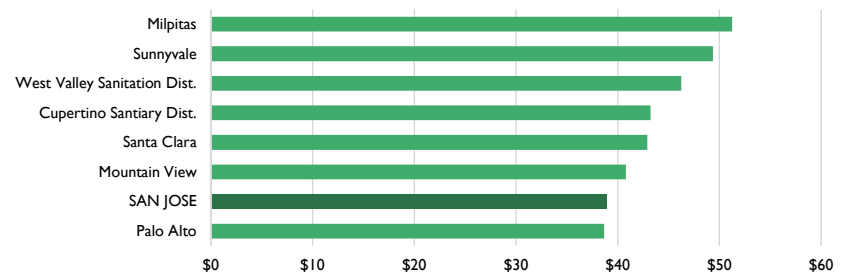
Millions of Gallons per Day Discharged to Bay During Average Dry Weather Season



Cost per Millions of Gallons Treated



Comparison of Monthly Sewer Rates* (2018-19)



Note: Based on [2018 Annual Self-Monitoring Report](#). In 2018, the dry weather period was from June through August. In past years, the dry weather period was from July through September.

* Sewer rates pay for costs of the sewer system as well as wastewater treatment. Sources: Rates listed on local government websites for municipalities provided.

RECYCLED WATER

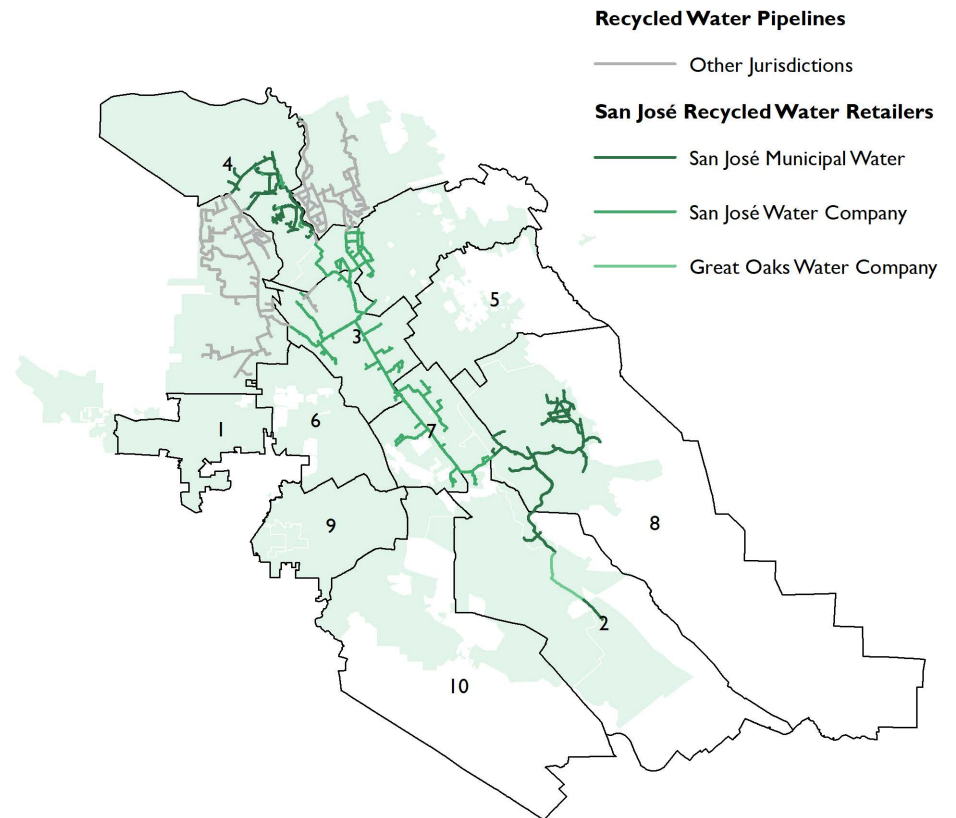
The City invested in South Bay Water Recycling (SBWR) in order to reduce wastewater effluent and protect the ecosystem of the South Bay, including the habitats of two federally endangered species, the Salt Marsh Harvest Mouse and the California Clapper Rail. SBWR serves the cities of Milpitas, Santa Clara, and San José.

In 2018-19, 18 percent of wastewater influent was recycled for beneficial purposes during the dry weather period, up from 14 percent ten years ago. SBWR customers used recycled water for cooling towers and to irrigate parks, golf courses, schools, and commercial landscape. SBWR met recycled water quality standards 100 percent of the time during the same period.

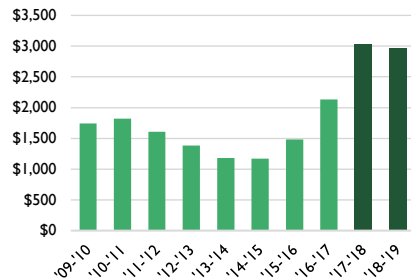
In 2018-19, SBWR delivered about four billion gallons of recycled water to 929 customers, who paid between \$2.71 and \$3.37* per hundred cubic feet of water, depending on the use. The Silicon Valley Advanced Water Purification Center, operated by the Santa Clara Valley Water District in partnership with San José and Santa Clara, produces up to eight million gallons per day of highly purified water used to enhance the quality and supply of recycled water.

The cost per million gallons of recycled water delivered was \$2,965 in 2018-19. The measure increased from prior fiscal years due to a change in accounting methodology that resulted in higher expenses being recognized in fiscal years after 2017-18.

* This rate is for City of San José Municipal Water customers; other SBWR provider rates may vary.

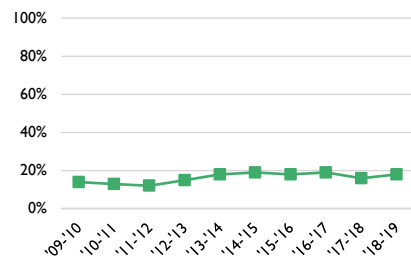


Cost per Million Gallons of Recycled Water Delivered



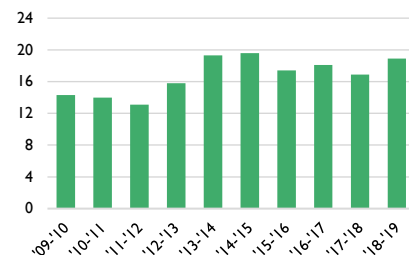
Note: Figures for 2017-18 and later are not comparable to those of prior fiscal years due to a change in accounting methodology.

% of Wastewater Recycled for Beneficial Purposes during Dry Weather Periods



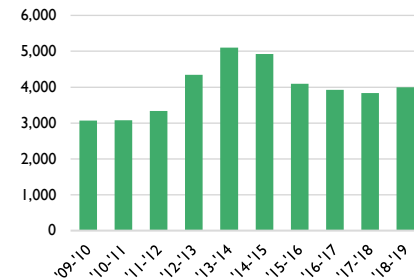
Note: In 2018, the dry weather period was from June through August. In past years, the dry weather period was from July through September.

Millions of Gallons Per Day Diverted during Dry Weather Periods



Note: In 2018, the dry weather period was from June through August. In past years, the dry weather period was from July through September.

Millions of Gallons of Recycled Water Delivered Annually



CLIMATE SMART SAN JOSÉ

On February 27, 2018, the San José City Council adopted the [Climate Smart San José Plan](#). The plan is a continuation of the 2007 San José Green Vision, and represents San José's commitment to meeting the greenhouse gas (GHG) emission reduction targets of the Paris Climate Agreement. Climate Smart San José lays out eight goals, focusing on reducing air pollution, saving water, and creating a stronger and healthier community.

ESD staff has also created a Climate Smart Dashboard to track progress on GHG emissions and Climate Smart milestones. The dashboard presents data on strategies related to energy, mobility, water, and economy. See the dashboard online at the following link: <http://dashboard.climatesmartsj.org>

Climate Smart Goals	Status to Date
1. By 2021, San José Clean Energy (SJCE) will offer 100 percent greenhouse gas-free power as a base product.	SJCE started serving both residents and businesses in February 2019. SJCE provides electricity that is 45 percent renewable and 80 percent carbon free. It is on track to be 100 percent carbon neutral by 2021. (See the Community Energy chapter for more information.)
2. By 2040, San José will be the world's first one gigawatt solar city.	Total solar capacity installed is 168 megawatts.
3. By 2030, 60 percent of all passenger vehicles in the City will be electric, making San José the electric car capital of the U.S.	The City Council adopted a building reach code that requires electric vehicle readiness in all buildings with an application for a building permit submitted after 2019.
4. Beginning in 2020, all new homes will be Zero Net Energy and, by 2030, 25 percent of all existing homes will be energy efficient and all-electric.	The City Council adopted a natural gas infrastructure prohibition for all new detached accessory dwelling units, single-family, and low-rise multi-family buildings with an application for a building permit submitted after 2019.
5. By 2030, San José will create an additional 22 million square feet of commercial workspace located within a half-mile of transit.	In 2018-19, the City issued permits totaling 2.35 million square feet of commercial, office, retail space within a half-mile of transit.
6. By 2030, San José will have developed 40,000 dwelling units in urban villages and focused growth areas.	Since the adoption of the General Plan in 2011, the City has permitted approximately 9,586 units within urban villages and focused growth areas.
7. By 2040, only four out of ten commute trips in San José will be taken in single-occupancy vehicles.	An estimated 4 percent of commutes are by walking or cycling.
8. By 2030, San José will reduce its per capita residential water consumption by 30 percent compared to 2009 levels.	In 2018, residential water consumption was 48.69 gallons per capita per day, a reduction of 19 percent compared to 2009 levels.