

# 15. CITY OF SAN JOSE

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## AGENCY OVERVIEW

The City of San Jose was incorporated on March 27, 1850, and became a charter city on May 4, 1965. San Jose is a full service city providing an extensive range of services including: planning (development review, zoning and environmental review); building inspection; code enforcement; housing; redevelopment; economic development; police protection; fire protection; public works (animal control, capital improvements, event services); transportation (streets, sidewalks, street lights, traffic, parking, trees and landscape, and sewer and storm drain collection); parks, recreation and neighborhood services (recreation, parks, trails, family camp, community center, and zoo); libraries; and international airport. City services (including wastewater, solid waste, parks and recreation, storm water drainage, law enforcement, and library) were studied in the August 2006 South Central Santa Clara County Service Review.

Municipal water services for San Jose are part of the Environmental Services Department, which also includes solid waste (garbage), recycling, recycled water, storm water, and wastewater. Water services were studied as part of the Countywide Water Service Review in June 2005.

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### Type and Extent of Services

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#### Services Provided

The Water Resources Division of the Environmental Services Department provides drinking water to residential, commercial, and industrial customers in North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley. The Water Resources Division oversees water quality, water conservation, system maintenance, backflow prevention, leak detection, and a recycled water program for the San Jose Municipal Water System (SJMWS). SJMWS also has a comprehensive water conservation program which includes landscape education, 'Save 20 Gallons' program, Watershed Watch, and the H<sub>2</sub>O use water saver program.

The City's water service area includes water service customers in the communities of North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley, all within the City of San Jose. San Jose is also served by the San Jose Water Company and the Great Oaks Water Company.

The Municipal Water System is comprised of two separate water systems: North San Jose-Alviso; and Evergreen-Edenvale-Coyote Valley. The Municipal Water System has three different sources of potable water, and one recycled water source. Potable water is derived from six municipal wells; from imported water from the State Water Project (SWP) and the federal Central Valley Project (CVP) through the SCVWD; and from the San Francisco Public Utilities Commission (SFPUC) Regional Water System. Recycled (non-potable) water for irrigation purposes is produced at the San Jose-Santa Clara Water Pollution Control Plant (WPCP) and distributed by South Bay Water Recycling (SBWR), a section of the City's Water Resources Division.

### Service Area

The Municipal Water System serves customers within four service areas: North San Jose-Alviso, Evergreen, Edenvale, and Coyote Valley.

### Services to Other Agencies

South Bay Water Recycling provides recycled water to Municipal Water System customers in North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley, as well as customers in the City of Milpitas, the City of Santa Clara, and the San Jose Water Company.

### Contracts for Water Services

The City contracts with SCVWD and the City and County of San Francisco for treated potable water.

### Collaboration

The City collaborates with the Bay Area Water Supply and Conservation Agency (BAWSCA), serves on SFPUC and SCVWD Subcommittees, participates in the 'Watershed Watch' program of the Santa Clara Valley Urban Runoff Pollution Prevention Program, and jointly participates on the Recycled Water Liaison Committee with SCVWD.

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## Boundaries

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The San Jose Municipal Water Service area consists of four sub-areas:

- ❖ North San Jose-Alviso – 5.3 square miles bounded by Alviso Slough on the north, Coyote Creek to the east, Trimble Road on the south, and the Guadalupe River on the west;
- ❖ Evergreen – 15.6 square miles bounded by Tully Road on the north, the foothills of the Mt. Diablo Range on the east, the City Limits on the south, and Highway 101 on the west;

- ❖ Edenvale – 0.9 square miles east of Coyote Creek and north of Silicon Valley Boulevard, and bisected by Hellyer Avenue; and
- ❖ Coyote Valley – 2.3 square miles located between Tulare Hill on the north and Palm Avenue on the south, and just east of Highway 101.

San Jose is located within the Santa Clara Groundwater Subbasin and the Coyote Subbasin.

## ACCOUNTABILITY AND GOVERNANCE

The City of San Jose operates under a city council-city manager form of government with a ten-member City Council elected by district, a Mayor elected at large, and a City Manager appointed by the City Council.

Councilmembers are elected to numbered districts for four-year terms. The Mayor is elected to a four-year term by all the voters in the City. The City Charter limits the Mayor and Councilmembers to serving no more than two consecutive terms. The Vice Mayor is selected by the Council to serve a one-year term. Current member names, positions, and term expiration dates are shown in Figure 15-1.

**Figure 15-1: City of San Jose City Council**

<b>San Jose Municipal Water System</b>				
<b>Water Resources Division Contact Information</b>				
<b>Contact:</b>	Mansour Nasser, Deputy Director			
<b>Address:</b>	3025 Tuers Road, San Jose, CA 95121			
<b>Telephone:</b>	408-277-4218			
<b>E-mail/Website:</b>	<a href="mailto:mansour.nasser@sanjoseca.gov">mansour.nasser@sanjoseca.gov</a> / <a href="http://www.sjuniwater.com">www.sjuniwater.com</a>			
<b>City Council</b>				
<b>Member Name</b>	<b>Position</b>	<b>Term Expiration</b>	<b>Manner of Selection</b>	<b>Length of Term</b>
Xavier Campos	Councilmember, District 5	December 2014	Elected by District	4 years
Kansen Chu	Councilmember, District 4	December 2012	Elected by District	4 years
Pete Constant	Councilmember, District 1	December 2014	Elected by District	4 years
Rose Herrera	Councilmember, District 8	December 2012	Elected by District	4 years
Ash Kaira	Councilmember, District 2	December 2012	Elected by District	4 years
Sam Liccardo	Councilmember, District 3	December 2014	Elected by District	4-years
Madison Nguyen	Vice Mayor, District 7	December 2014	Elected by District	4-years
Pierluigi Oliverio	Councilmember, District 6	December 2012	Elected by District	4-years
Nancy Pyle	Councilmember, District 10	December 2012	Elected by District	4 years
Chuck Reed	Mayor	December 2014	Elected At Large	4 years
Donald Rocha	Councilmember, District 9	December 2014	Elected by District	4 years
<b>Meetings</b>				
<b>Date:</b>	Every Tuesday at 1:30 PM and the first and third Tuesdays at 7:00 PM			
<b>Location:</b>	City Council Chambers, City Hall, 200 E. Santa Clara Street, San Jose			
<b>Agenda Distribution:</b>	Posted on the City Clerk's page on the City website.			
<b>Minutes Distribution:</b>	Available on the City Clerk's page of the City website, along with agendas and reports.			

The City Council meets every Tuesday in the City Council Chambers at 1:30 PM, and on the first and third Tuesdays at 7:00 PM when most land use public hearings are held. Agendas are posted on the City website. Agendas, synopses of meetings, minutes, and reports are available on the website.

Council meetings are televised live on Civic Center TV (Cable Channel 26). Meetings are also webcast live and archived for review on the City website.

The City does not have a water-related advisory commission or committee. The City participated with the City of Santa Clara and SCVWD on a Joint Recycled Water Liaison Committee. The Committee consisted of the Mayor of Santa Clara, two Councilmembers from San Jose, and three Board Members from SCVWD. The purpose of the committee was to develop a long-term agreement amongst the parties on the use of recycled water and operations and maintenance of the South Bay Water Recycling system. The Committee completed its work in April 2009.

The Water Services Division website can be accessed directly at [www.sjmuniwater.com](http://www.sjmuniwater.com). There is extensive information related to water, including an explanation of water supply and distribution, customer service, water quality, and water retail rates. Links are readily accessible to the 2010 Urban Water Management Plan, Annual Water Quality Reports, and the Water Conservation program. A detailed contact list of personnel is not provided, but inquiries/complaints/questions can be submitted in person to the Customer Contact Center at City Hall, by telephone to the Customer Contact Center, or by e-mail.

If a customer is dissatisfied with the City's water services, that customer may write a letter to the Deputy Director of Environmental Resources, visit or call the Customer Contact Center, or submit an e-mail. In calendar year 2010, the North San Jose-Alviso system had a total of 23 water quality-related complaints; two for odor/taste, 15 for color, zero for turbidity, three for pressure, and three for water outages. These complaints accounted for 0.98 percent of the 2,349 customers served. The Evergreen-Edenvale-Coyote Valley system had a total of 66 water quality-related complaints; six for odor/taste, seven for color, one for turbidity, and 52 for pressure. These complaints accounted for 0.28 percent of the 23,469 customers served.

The Water Resources Division of the Environmental Services Department demonstrated full accountability and transparency in its disclosure of information and cooperation with Santa Clara LAFCO. The Water Resources Division responded to the questionnaires and cooperated with all document requests.

## MANAGEMENT AND STAFFING

Daily operations of the Water Resources Division are under the direction of the Deputy Director of Water Resources, who reports to the Director of Environmental Services, who reports directly to the City Manager. The Division has a total of 45.0 full-time equivalent (FTE) staff divided into three sections: Water Supply and Operations & Maintenance Engineering; South Bay Water Recycling; and Operations & Maintenance. These positions are detailed in Figure 15-2.

**Figure 15-2: Water Resources Division Staff Allocation**

Position	FTE	Position	FTE
Deputy Director	1.0	<u>South Bay Water Recycling</u>	
Senior Office Specialist	3.0	Associate Engineer	2.0
		Supervising ESS	1.0
<u>Water Supply and O&amp;M Engineering</u>		Associate Engineering Technician	1.0
Senior Civil Engineer	1.0	Environmental Services Specialist	1.0
Associate Engineer	2.0	Associate ESS	1.0
Engineer II	2.0	Assistant ESS	1.0
Principal Construction Inspector	1.0		
Senior Construction Inspector	1.0	<u>Operations and Maintenance</u>	
Associate Construction Inspector	1.0	Maintenance Superintendent	1.0
Cross Connection Specialist	1.0	Maintenance Supervisor	2.0
Environmental Services Specialist (ESS)	2.0	Electrician	1.0
Senior Engineering Technician	2.0	Senior Water System Tech	3.0
Associate Engineering Technician	1.0	Water System Technician	9.0
Engineering Technician	1.0	Water Meter Reader	3.0
		<b>Total</b>	<b>45.0</b>

Performance evaluations of all employees are conducted annually. The probation period for new employees is generally six months, with evaluations at three and six months. The agency tracks the employees' workload through work logs, service requests, and performance targets.

Operational efficiencies are being improved by equipping water meters with remote meter reading transponders, allowing for more efficient collection of water use data. The Division has recently upgraded its Supervisory Control and Data Acquisition (SCADA) System to enable the system to operate more efficiently. The South Bay Water Recycling program now has over 600 customers, with summer recycled water use in excess of 14 million gallons per day (MGD).

The City adopted the 2010 Urban Water Management Plan on June 14, 2011, and completed a Water Conservation Plan in August of 2008. Work is underway in updating

the Disaster Operations Plan. Capital improvements are considered over a five-year planning period as part of the budget process.

## POPULATION AND PROJECTED GROWTH

The 2010 United States Census population for the City of San Jose is 945,942, making it the largest city in Santa Clara County, the third largest city in California, and the 10th largest city in the United States. The average household size in the City of San Jose is 3.09 per the United States Census.

ABAG projects that the population of San Jose will increase to 1,380,900 by 2035, a 40.8 percent increase over the twenty-five year period.

The North San Jose-Alviso water system area has an estimated 2010 population of 14,645 based on State Department of Water Resources (DWR) methodology and United States Census block data. The Evergreen-Edenvale-Coyote Valley water system area has an estimated 2010 population of 100,329 based on DWR methodology and United States Census block data.

The City is currently updating its General Plan (called Envision Plan 2040), with adoption scheduled for October 2011. The Draft Update estimates that by the year 2040, North San Jose-Alviso will have an additional 21,757 residential dwelling units and 92,062 new jobs. For Evergreen, the estimate is 3,198 additional residential dwelling units and 19,976 new jobs. For Edenvale, the Draft Update estimates that there will be zero new residential dwelling units and 16,000 new jobs. For Coyote Valley, the estimate is for zero new residential units and 50,000 new jobs.

The current General Plan (San Jose 2020) contains water resources goals and policies. One 'benchmark' type service level for water supply and sewage treatment states "... prior to the approval of major new development, available water supply and sewage treatment capacity should be ensured and documented. The City should coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects."<sup>109</sup>

The August 15, 2011 draft of Envision Plan 2040 lists the following implementation measures related to water:

- ❖ Continuously improve water conservation efforts in order to achieve best in class performance. Double the City's annual water conservation savings by 2040 and achieve half of the District's goal for Santa Clara County on an annual basis.
- ❖ Reduce residential per capita water consumption by 25 percent by 2040.

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<sup>109</sup> General Plan 2020, page 93.

- ❖ Achieve by 2040, 50 million gallons per day of water conservation savings in San Jose, by reducing water use and increasing water efficiency. Use the 2008 Water Conservation Plan as the data source to determine the City's baseline water conservation savings level.
- ❖ Recycle or beneficially reuse 100 percent of the City's wastewater supply, including the indirect use of recycled water as part of the potable water supply.<sup>110</sup>

## FINANCING

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### Financial Adequacy

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The Water Utility Fund (Water Fund) is an enterprise fund in which charges for services generate the necessary funds to provide the services. No General Fund monies are utilized by the Fund. Water Utility Fund revenues and expenditures are tracked by operational costs and by capital improvements.

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### Revenue Sources

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In FY 08-09, the Water Fund generated \$26.1 million, in FY 09-10 the Fund generated \$24.7 million, and in FY 10-11 the Fund was projected to generate \$25.7 million. This amount is expected to increase to \$27.3 million in FY 11-12. The reduction between FY 08-09 and FY 09-10 is attributed to a 6.3 percent decrease in water sales driven by mandatory water rationing, the economic downturn, and a cooler spring and summer. Projected revenues for FY 11-12 will increase due to the recent rate hike. Revenues for the past three fiscal years are shown in Figure 15-3.

In FY 10-11, the Water Fund generated \$25,650,000 in direct revenue from the following sources:

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<sup>110</sup> Draft Envision Plan 2040, pages 7-11 and 7-12.

<b>Potable Water Sales</b>	<b>\$23,300,000</b>	<b>90.8%</b>
<b>Recycled Water Sales</b>	\$2,200,000	8.6%
<b>Interest</b>	\$50,000	0.2%
<b>Miscellaneous</b>	\$200,000	0.8%
<b>Uncollectible Debt</b>	(\$100,000)	(0.4%)
<b>Total</b>	<b>\$25,650,000</b>	<b>100%</b>

As indicated above, significant revenues are derived from potable water sales.

### Rates

System-wide, the water rates for FY 11-12 have increased by 5.9 percent effective July 1, 2011. The San Jose Municipal Water System has an 'inclining tiered' rate structure for residential users which charges proportionally higher water rates for higher water users. One objective of this rate structure is to promote the reduction in water use. Current bimonthly rates vary, depending on the usage and location. Higher rates relate to higher pressure zones.

**Figure 15-3: Water Use**

<b>Water Use Bimonthly in hundred cubic feet (CCF)<sup>111</sup></b>	<b>Rates based on Pressure Zones</b>	<b>Bimonthly Increase</b>
<b>Tier 1 (0 to 14 CCF)</b>	\$2.171 to \$2.510 per CCF	\$2.504
<b>Tier 2 (15 to 28 CCF)</b>	\$2.499 to \$2.817 per CCF	\$2.588
<b>Tier 3 (29 to 42 CCF)</b>	\$2.753 to 3.103 per CCF	\$2.678
<b>Tier 4 (more than 42 CCF)</b>	\$3.039 to \$3.346 per CCF	\$2.570

In addition to the water use charge, the System also charges a meter service charge depending on meter size. Under the new rates, a typical 5/8-inch residential meter costs \$9.531 per month, an increase from \$9.00 per month. In addition, all water bills include a service charge and a 5 percent utility tax. A typical monthly water bill for a customer that uses 15 CCF has increased by \$2.57 from \$43.60 to \$46.17.

<sup>111</sup> One hundred cubic feet (CCF) equals 748 gallons.

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## Expenditures

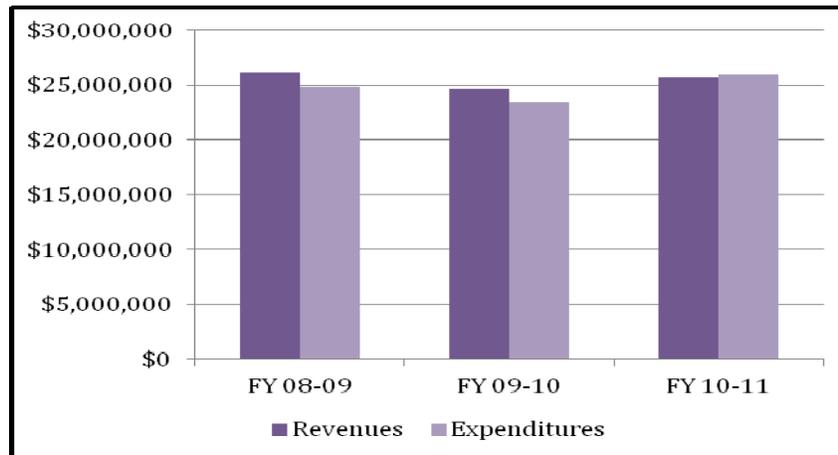
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For FY 11-12, the Water Fund expenditure is expected to total \$28.3 million, which is 2.6 percent of the City total expenditure (all funds) of \$1.09 billion.

In FY 08-09, the Water Fund spent \$24.9 million; in FY 09-10 the Fund spent \$23.5 million; and in FY 10-11 the Fund was projected to spend \$25.9 million. Expenditures for the past three fiscal years are shown in Figure 15-4.

Primary expenses in FY 10-11 were as follows:

<b>Wholesale Water Purchases</b>	<b>\$17,300,000</b>	<b>66.7%</b>
<b>Salaries and Benefits</b>	\$3,814,752	14.7%
<b>Materials and Supplies</b>	\$54,999	0.2%
<b>Commercial Paper Repayment</b>	\$159,661	0.6%
<b>General Fund Overhead</b>	\$797,166	3.1%
<b>Workers Comp Claims</b>	\$24,000	<0.1%
<b>Transfer to City Hall Debt Service</b>	\$130,205	0.5%
<b>Transfer to General Fund</b>	\$170,000	0.7%
<b>Transfer to Water Capital Fund</b>	\$3,472,000	13.4%
<b>Total</b>	<b>\$25,922,783</b>	<b>100%</b>

**Figure 15-4: Expenditures and Revenues (FYs 08-09, 09-10 and 10-11)**

### Capital Outlays

The current budget includes two capital improvement projects: the Bon Bon Drive Water Main Replacement project budgeted at \$935,000; and completion of the Nortech Parkway East Loop Water Main project budgeted at \$674,000 with a total project budget of \$749,000 over a two-year period.

### Long-term Debt

The Water Utility Fund does not have any long-term debt.

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### Reserves

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Pursuant to Ordinance No. 26903, the Water Fund is required to maintain a Rate Stabilization Reserve equivalent to 5 percent of annual operating revenue, and a Reserve for Operations and Maintenance equivalent to 7 percent of annual operating revenues. At the end of FY 10-11, these amounts were \$1,283,000 and \$4,378,437 respectively. Both reserve funds meet their statutory requirement, with the Rate Stabilization Reserve at 5.0 percent and the Reserve for Operations and Maintenance at 17.1 percent. The Reserve for Operations and Maintenance Reserve would be sufficient to fund water operations for 2.0 months.

The Water Fund also maintains for each Fiscal Year a Reserve for Workers Compensation Claims at \$50,000, a Reserve for Encumbrances at \$391,771, a Retirement Pre-Payment Reserve at \$24,000, and an Unrestricted Reserve at \$500,000.

## WATER SUPPLY

The San Jose Municipal Water System (SJMWS) relies on four sources of water supply: surface water from the San Francisco Public Utilities Commission (SFPUC); local and imported surface water from Santa Clara Valley Water District (SCVWD); groundwater from the Santa Clara groundwater basin; and recycled water from the South Bay Water Recycling (SBWR) Program.

Figure 15-5 depicts the amount of supply from each source that was purchased in 2010 and is anticipated to be purchased through 2035 as determined by the City. As a water retailer, SJMWS depends heavily on water supply wholesalers to meet system demands. To meet future demand, SJMWS plans to rely on a portfolio of supplies. By utilizing different supply sources, the City may be able to reduce the impact of water shortage from each source.

**Figure 15-5: City of San Jose Water Supplies- Current and Projected in a Normal Year**

Water Supply Source	2010	2015	2020	2025	2030	2035
<b>SFPUC</b>	4,592	5,039	5,039	5,039	5,039	5,039
<b>SCVWD</b>	13,692	16,185	16,592	17,019	17,500	17,500
<b>Groundwater</b>	668	5,767	7,988	10,251	12,809	15,888
<b>Recycled Water</b>	3,339	5,148	5,609	6,150	6,770	7,351
<i>Source: City of San Jose Municipal Water System 2010 UWMP, June 2011, Table 4-1: Water Supplies - Current and Projected in a Normal Year for SJMWS</i>						

### SFPUC Water

The City of San Jose purchases treated water from the SFPUC system. The business relationship between SFPUC and its wholesale customers is largely defined by the 2009 Master Agreement between SFPUC and 29 wholesale customers in Alameda, San Mateo and Santa Clara Counties. The agreement addresses the rate-making methodology used by SFPUC in setting wholesale water rates for its wholesale customers, in addition to addressing water supply and water shortages for the regional water system. The agreement has a 25 year term. The City of San Jose also has an individual agreement with SFPUC, which provides that the City will remain a temporary and interruptible customer with assurance of supply only until December 2018. The terms of the agreement state that the maximum amount SFPUC will deliver collectively to the City of San Jose and City of Santa Clara is 9.0 million gallons per day (mgd) or 10,082 acre feet per year (AFY). As shown in Figure 15-5, San Jose projects purchasing 5,039 acre feet of water, or 50 percent of the allocated water supply to the two cities, in any given year between 2015 and 2035.

By December 2018, SFPUC will make further decisions on future water supply beyond 2018, after completing necessary cost analyses and California Environmental Quality Act (CEQA) evaluation/documentation. The supply is interruptible before December 2018, if the SFPUC determines that aggregate use by all wholesale customers will exceed 184 mgd

in 2018. The supply cannot be interrupted until five years after the City has received notice of SFPUC's intention to reduce or interrupt deliveries.

The SFPUC water supply is subject to reductions during drought conditions. As part of the water supply agreement, a water shortage allocation plan between SFPUC and its wholesale customers was adopted in 2009, and addresses shortages of up to 20 percent of system-wide use. The Tier 1 Shortage Plan allocates water from the regional water system between San Francisco Retail and the wholesale customers during system-wide shortages of 20 percent or less. The water supply agreement also includes a Tier 2 Shortage Plan, which allocates the available water among the SFPUC wholesale customers. A new Tier 2 plan was approved by the BAWSCA agencies in 2011, which provides the framework for allocating the wholesale Tier 1 water allocation between the different BAWSCA agencies. The new Tier 2 water shortage plan is in effect until 2018. For details, refer to the 'Drought Allocations' section of Chapter 23, San Francisco Public Utilities Commission.

The City may also purchase excess water supplies from other SFPUC wholesale customers. The City has emergency interties with the City of Santa Clara and San Jose Water Company for short-term transfers. However, there are no assurances that this excess water will be available and these emergency supply sources are not included in Figure 15-5.

#### SCVWD Water

Presently, the City receives a majority (61 percent) of its water from SCVWD. SCVWD supplies SJMWS with treated surface water through the East and Snell Pipelines from the Santa Teresa and Penitencia water treatment plants. The current contractual agreement between SJMWS and SCVWD sunsets in 2051, and establishes a schedule of water deliveries based on a five-year planning period. SJMWS contracts annually for minimum deliveries, with restrictions based on peak demand and annual distribution. The contract currently allocates 17,500 AFY to SJMWS. By 2035, the City projects that it will purchase the full allocated amount from SCVWD.

In determining the long-range availability of water from SCVWD, consideration must be given to the vulnerability of imported supplies to the effects of prolonged state-wide drought and environmental impacts. Reductions by the Department of Water Resources or the US Bureau of Reclamation to SCVWD allocations of State Water Project or Central Valley Project-San Felipe Division water may result in a temporary supply shortfall for SJMWS and other SCVWD retailers. Although SJMWS has the facilities to pump additional groundwater, the Evergreen service area, for which current supplies are 100 percent imported water, could be faced with a supply deficiency, especially during the summer months. The City reported that water demands could be met with groundwater, additional imported water supply, water conservation measures, and with expanded recycled water use.

### Groundwater

The Edenvale and Coyote Valley SJMWS service areas are supplied entirely by groundwater. SJMWS also utilizes groundwater as a source of supplemental and/or emergency supply for the North San Jose-Alviso and Evergreen service areas. SJMWS has 11 wells, which draw from the Santa Clara Valley Plain subarea, and three wells, which draw from the Coyote Valley subarea. In 2010, the well system accounted for 668 acre feet, or 3.5 percent of the potable water supply for the system. SJMWS plans to use groundwater to cover any shortfall in purchased surface water sources. Figure 15-5 shows that the City anticipates significantly increasing its use of groundwater over the next 25 years, with projected groundwater use increasing from 668 acre feet to 15,888 acre feet between 2010 and 2035.

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### Recycled Water

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In 1998, the South Bay Water Recycling (SBWR) facility and pipeline was constructed to provide recycled water from the San Jose-Santa Clara Water Pollution Control Plan to wholesale water providers for irrigation, landscape and industrial uses. SBWR is a joint powers authority that consists of the Cities of San Jose, Milpitas and Santa Clara, West Valley Sanitation District, and Cupertino Sanitation District. SBWR was developed to protect the salt marsh habitat by reducing effluent flows from the plant into the wetlands of the South Bay. A further benefit of this program was the development of a drought-proof supply of water, which augments local and imported water supplies.

SBWR currently provides recycled water to SJMWS customers in North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley, as well as customers in the City of Milpitas, the City of Santa Clara, and the San Jose Water Company. At the present time, the system has over 600 customers, with summer recycled water use in excess of 14 mgd. In 2010, recycled water comprised 15 percent of SJMWS's total water sources. The City anticipates making greater use of recycled water in the future with projected use more than doubling between 2010 and 2035. This growth in recycled water use is projected to be entirely for irrigation purposes.

It is anticipated that there will be no significant new uses (wildlife habitat, wetlands, etc.) in the immediate future; however, there is the potential to use a significant amount of recycled water for groundwater recharge and streamflow augmentation in the long term. These uses are being evaluated by SCVWD.

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## Emergency Preparedness

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### Water Supply Hazards

The Operations & Maintenance Section of the Water Resources Division is on call 24-7 and is prepared to respond to any leaks or breaks in a timely manner; and is able to be on site within 30 minutes of dispatch.

Disasters such as earthquakes could threaten water delivery infrastructure. The wholesalers that provide SJMWS with water supply are taking steps to ensure water supply reliability. Both SFPUC and SCVWD have instituted significant infrastructure improvement plans.

### Emergency Water Supply

Emergency backup water supply is provided by above-ground water storage tanks within each service area:

- ❖ North San Jose-Alviso – two three-million gallon tanks with the ability to provide 24 hours of emergency water under a maximum daily demand scenario;
- ❖ Evergreen – 13 storage tanks with a combined capacity of 25 million gallons with the ability to provide 30 hours of emergency water under a maximum daily demand scenario, and based on current maximum daily well production of 20 mgd;
- ❖ Edenvale – one three-million gallon tank with the ability to provide a minimum of 72 hours of emergency water under a maximum daily demand scenario; and
- ❖ Coyote Valley – one 3.6-million gallon tank with the ability to provide a minimum of 80 hours of emergency water under a maximum daily demand scenario.

### Interties and Back-up Supply

Regarding emergency transfer opportunities, the SJMWS is currently connected to the City of Santa Clara and the San Jose Water Company through service connections located adjacent to the SJMWS service area for use during emergency situations.

## WATER DEMAND

In, 2010, the City made use of 22,291 acre feet of water combined from all sources. A large majority of the water used (82 percent) was from purchased surface water from SFPUC and SCVWD. The City maximizes use of the available surface water supply. In 2010, SJMWS made use of approximately 78 percent of the amount available from SCVWD and 46 percent of the total SFPUC amount allocated to the Cities of San Jose and Santa Clara. The City reported that it is committed to purchasing the maximum amount of water available and reducing its reliance on groundwater due to the uncertainties regarding the availability and sustainability of the groundwater basin.

The City of San Jose's projected water supply and demand comparison to 2035 during a normal year are set out in Figure 15-5.

**Figure 15-5: City of San Jose Supply and Demand Comparison- Normal Year (AFY)**

Source	2015	2020	2025	2030	2035
SFPUC	5,039	5,039	5,039	5,039	5,039
SCVWD	16,185	16,592	17,019	17,500	17,500
Groundwater	5,767	7,988	10,251	12,809	15,888
Recycled Water	5,148	5,609	6,150	6,770	7,351
<b>Supply Total</b>	<b>32,139</b>	<b>35,228</b>	<b>38,459</b>	<b>42,118</b>	<b>45,778</b>
<b>Demand</b>	<b>32,139</b>	<b>35,227</b>	<b>38,459</b>	<b>42,119</b>	<b>45,779</b>
<b>Total Difference</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>-1</b>

**Source:** Adapted from City of San Jose Municipal Water System 2010 UWMP, June 2011, Table 5-5: Supply and Demand Comparison - Normal Year (AFY), page 5-14

Based on the projections shown, the City will be using its full allocated amount from SFPUC in 2015 and the full available amount from SCVWD by 2030.

According to the recently completed SJMWS 2010 UWMP, the supply and demand totals for a single dry-year and each of the multiple dry-year sequences through 2035 show no difference between supply and demand. In the event of a decrease of local supplies, SJMWS would respond by pursuing demand reduction programs in accordance with the severity of the supply shortage. Any supply deficit would be compensated for by increased conservation levels, restrictions in consumption, and increased use of groundwater.

## **WATER INFRASTRUCTURE AND FACILITIES**

The San Jose Municipal Water System is divided into four service areas: North San Jose-Alviso (which is a stand-alone system), and Evergreen, Edenvale and Coyote Valley (which are interconnected).

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### **Conveyance, Storage and Distribution Facilities**

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North San Jose-Alviso is served through two turnouts from the SFPUC Bay Division Pipelines 3 and 4. These supply points are associated with a distribution system consisting of 51.4 miles of water lines and two water storage reservoirs (with a capacity of 3.0 MG each). Each reservoir has an associated pump station. This area has one pressure zone. The SFPUC supply is augmented by four wells with a pumping capacity of approximately 1,500 gallons per minute (GPM) each. Two wells can be utilized under normal conditions to supply water and the other two are for emergency use. North San Jose-Alviso currently has 2,349 service connections. For calendar year 2010, there were two main line breaks or leaks, and three service connection breaks or leaks. SJMWS did not issue any 'boil water' orders or report any water outages for the North San Jose-Alviso service area.

Evergreen is served through three turnouts from SCVWD's East Pipeline. These supply points are associated with a distribution system consisting of 265 miles of water lines and 13 water storage reservoirs (with a combined capacity of 25.0 MG). Each reservoir has an associated pump station. This area has five different pressure zones. There are four wells with a pumping capacity of approximately 1,500 gallons per minute (GPM) each that can be used for emergencies.

Edenvale is served within a single pressure zone by three wells with a combined pumping capacity of approximately 3,400 gpm. The wells are connected to a 6.2 mile distribution system and a single 3.0 MG storage tank.

Coyote Valley is served within a single pressure zone by four wells with a combined pumping capacity of approximately 5,500 gpm. The wells are connected to a 5.1 mile distribution system and a single 3.0 MG storage tank.

Evergreen, Edenvale and Coyote Valley currently have a total of 23,469 service connections. For calendar year 2010, there were four main line breaks or leaks, and 52 service connection breaks or leaks. SJMWS did not issue any 'boil water' orders or report any water outages for the Evergreen-Edenvale-Coyote Valley service areas.

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### **Water Treatment Facilities**

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The San Jose Municipal Water System does not have any water treatment facilities.

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## Infrastructure Needs & Capital Improvement Program

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The current capital improvement program identifies two capital improvement projects, one for water main replacement and the other for a new main line extension. Refer to the Financing Section for details.

The SCADA system was recently upgraded and the Division continues to replace water meters with AMR meters. Ongoing work includes turnout improvements, solar power installations, and reservoir seismic piping.

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## Shared Facilities

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The San Jose Municipal Water System does not share any facilities with any other agencies or organizations.

## WATER QUALITY

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### Source Water

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For the SFPUC system, the major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir, where it is stored. This pristine water source is located in the well-protected Sierra region and meets all Federal and State criteria for watershed protection. DPH and the EPA have granted the Hetch Hetchy water source a filtration exemption, based on the SFPUC's disinfection treatment practice, extensive bacteriological-quality monitoring, and high operational standards. In other words, the source is so clean and protected that the SFPUC is not required to filter water from the Hetch Hetchy Reservoir. Water from the Hetch Hetchy is supplemented by run-off collected in the Alameda and Peninsula Watersheds. This water is treated at two water treatment plants prior to distribution.

Overall groundwater quality in Santa Clara County is very good and water quality objectives are achieved in most wells. Public water supply wells throughout the County deliver high quality water to consumers, almost always without need for treatment. The most significant exceptions are nitrate and perchlorate, which have impacted groundwater quality predominately in South County. In the future, new and more stringent drinking water quality standards could also affect the amount of groundwater pumped from the basin.

According to the California Department of Public Health (CDPH) Drinking Water Source Assessment, which evaluates the vulnerability of water sources to contamination, the SVCWD's surface source waters are susceptible to potential contamination from sea water intrusion and organic matter in the Delta and from a variety of land use practices, such as agricultural and urban runoff, recreation activities, livestock grazing, and residential and

industrial development. Local sources are also vulnerable to potential contamination from commercial stables and historic mining practices.

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## Treated Water

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Quality of treated water can be evaluated according to several measures. For the purposes of this report, the following indicators are used: the number of violations as reported by the EPA since 2000, the number of days in full compliance with Primary Drinking Water Regulations in 2010, and any deficiencies identified by CDPH as prioritized health concerns.

The San Jose Municipal Water System does not treat water derived from the System's municipal wells. Treated water is received from the SFPUC Regional Water System and the SCVWD water treatment plants. According to the EPA Safe Drinking Water Information System, neither SFPUC or SCVWD had health or monitoring violations within the last 10 years with regard to its treatment systems. SJMWS's water wholesalers, SFPUC and SCVWD, conduct their own testing of the water supplied. Of the parameters tested, none were found to be higher than CDPH allows.

According to the federal Environmental Protection Agency (EPA) through its Safe Drinking Water Information System (SDWIS), the North San Jose-Alviso system had two violations during the 2000-2010 period. One was a Health Based Violation in April 2008 for coliform, which was cleared by State Administrative Order without penalty. The other was a minor monitoring and reporting violation in December 2005. The Evergreen-Edenvale-Coyote Valley system had one Health Based Violation in October 2010 for coliform, which was cleared by State Administrative Order without penalty. During 2011, the City has implemented measures to eliminate inconsistent results, and over the last year has not experienced any water quality violations and all samples have met state and federal requirements. Measures taken include 1) inspection of the water quality lab, 2) reviewed sampling procedures and made changes to ensure proper sampling, 3) installed new dedicated sample stations and serviced existing sampling stations, 4) installed cyber locks on all sample stations, 5) changed to a new sample lab that performed more accurate testing, 6) scheduled quarterly distribution disinfection and flushing in the Edenvale system, and 7) ensured hydrant flushing was not performed the day before collecting samples.

The 2010 Water Quality Report indicates that the SJMWS's potable water supply from all operating sources met all state and federal drinking water health standards. One well in Coyote Valley exceeded several secondary drinking water standards and was taken out of service. In order to insure that water quality standards are met, drinking water samples are collected daily throughout the System and analyzed for a variety of regulated and unregulated contaminants. Samples are tested by SJMWS's staff and an independent certified laboratory using the latest testing procedures and equipment. Of the parameters tested, samples taken in Edenvale by SJMWS staff in October 2010 were found to be higher than the CDPH allows for coliform. This deficiency has been corrected by SJMWS.

The CDPH Annual Water System Sanitary Survey conducted in March and April of 2011 identified 18 minor deficiencies, primarily related to requested upgrades to metal screens at tank and pump station facilities. These deficiencies have been remedied by SJMWS.

## **SAN JOSE MUNICIPAL WATER SYSTEM SERVICE REVIEW DETERMINATIONS**

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### Growth and Population Projections

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- ❖ The current 2010 population of the City of San Jose is 945,942.
- ❖ The current estimated population within the San Jose Municipal Water System (SJMWS) service area is 114,974.
- ❖ The San Jose Municipal Water System serves 12.2 percent of the population of the City of San Jose. The remainder of the City is served by the San Jose Water Company and the Great Oaks Water Company.

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### Present and Planned Capacity of Public Facilities and Adequacy of Public Services, Including Infrastructure Needs and Deficiencies

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- ❖ The SJMWS will meet its water needs by maximizing its use of allocated water from SFPUC and SCVWD, and by increasing its use of groundwater.
- ❖ SJMWS reported that it is committed to purchasing the maximum amount of water available from SFPUC and SCVWD, and reducing its reliance on groundwater due to the uncertainties regarding the availability and sustainability of the groundwater basin. However, SJMWS also plans to increase its groundwater pumping from 668 acre-feet per year (AFY) in 2010 to 15,888 AFY by 2035.
- ❖ SJMWS would respond to a decrease in water supplies by pursuing demand reduction programs, by increasing conservation levels, and by increased use of groundwater.
- ❖ The SJMWS water supply and distribution system has adequate capacity to serve all water customers within its service area, but would need to rely on increased groundwater pumping to meet this need.
- ❖ The SJMWS is placing significant emphasis on utilizing recycled water for landscape irrigation, almost doubling its recycled water use to 7,351 AFY by 2035, which will be 16 percent of its total water supply.
- ❖ The San Jose Municipal Water System has above ground water storage tanks for emergency supply: two tanks in North San Jose-Alviso with 24 hours of emergency supply; 13 tanks in Evergreen with 30 hours of emergency supply; one tank in Edenvale with 72 hours of emergency supply; and one tank in Coyote Valley with 80 hours of emergency supply.

- ❖ The SJMWS water storage and distribution system is considered to be in good condition. Capital improvements are associated with main line extensions to eliminate 'dead end' lines.
- ❖ Water tank piping systems are being seismically retrofitted to further stabilize the water supply system and ensure reliability.
- ❖ While the SJMWS demonstrated compliance with drinking water regulations and timely thorough response to California Department of Public Health concerns, the City could improve upon the health and monitoring violations that they received over the last 10 years. The City has taken steps over the last year to address these violations.
- ❖ City management methods appear to generally meet accepted best management practices. The City prepares a budget before the beginning of each fiscal year, has a detailed Capital Improvement Program, conducts periodic financial audits, maintains relatively current transparent financial records, regularly evaluates rates and fees, tracks employee and department workload, and has established a process to address complaints.

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### Financial Ability of Agency to Provide Services

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- ❖ As an Enterprise Fund, the San Jose Municipal Water System has sufficient financial resources to provide an adequate level of service. The rate increase which went into effect on July 1, 2011 will increase revenues so that revenues are greater than expenditures.
- ❖ The Rate Stabilization Reserve and the Reserve for Operations and Maintenance meet the statutory requirements under the City's Water Fund ordinance.
- ❖ Water rate increases over the next several years will be required due to the SFPUC Regional Water System seismic improvement project, increased SCVWD groundwater pumping fees, and reduced retail water sales.

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### Status and Opportunities for Shared Facilities

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- ❖ The City practices facility sharing by receiving potable water through the SFPUC distribution system and the SCVWD distribution system.
- ❖ The City has emergency water line interties with the City of Santa Clara and the San Jose Water Company for use during emergency situations.
- ❖ South Bay Water Recycling (SBWR) currently provides recycled water to SJMWS customers in North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley, as well

as to customers in the City of Milpitas, the City of Santa Clara, and the San Jose Water Company.

- ❖ The City collaborates with the Bay Area Water Supply and Conservation Agency (BAWSCA), serves on SFPUC and SCVWD Subcommittees, participates in the 'Watershed Watch' program of the Santa Clara Valley Urban Runoff Pollution Prevention Program, and jointly participates on the Recycled Water Liaison Committee with SCVWD.

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### Accountability for Community Services, Including Governmental Structure and Operational Efficiencies

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- ❖ Accountability is best ensured when contested elections are held for governing body seats, constituent outreach is conducted to promote accountability and ensure that constituents are informed and not disenfranchised, and public agency operations and management are transparent to the public. The City demonstrated accountability with respect to all of these factors.
- ❖ The City does not have a water-related advisory commission or committee.
- ❖ The Water Services Division website contains extensive information related to water, including an explanation of water supply and distribution, customer service, water quality, and water retail rates.
- ❖ Operational efficiencies are being improved by equipping water meters with remote meter reading transponders to allow for more efficient collection of water use data, and by utilizing an 'inclining block tier' water rate structure which promotes more efficient use of water.
- ❖ No alternative government structure options have been identified for the San Jose Municipal Water System.