

**SAN JOSE WATER COMPANY
CITY OF SAN JOSE 2040 GENERAL PLAN
WATER SUPPLY ASSESSMENT**

June 2010



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San Jose Water Company (SJWC) is one of the largest privately owned water systems in the United States, providing high-quality water and exceptional customer service to residents of Santa Clara County (currently about one million) in Northern California since established in 1866.



Purpose

This Water Supply Assessment (WSA) will describe the relationship between existing and future water supplies in SJWC’s service area, and presents SJWC’s ability to provide a diverse water supply to match planned water demands under both normal and dry years. This document is designed to promote collaborative planning between SJWC, Santa Clara Valley Water District (SCVWD), and the City of San Jose Task Force (Task Force), and in turn, assist the San Jose City Council in making decisions related to their Envision 2040 General Plan Update.

A General Plan outlines proposed growth and development throughout a city. The existing City of San Jose General Plan was adopted in 1994 and guides daily decision-making for land use and City services. Although the current Plan provides a framework for development, after fifteen years of residential and business growth, the City is reevaluating their General Plan.

This WSA is written in response to California Senate Bill 610; legislation which requires water retailers to demonstrate whether their water supplies are sufficient for certain proposed subdivisions and large development projects subject to the California Environmental Quality Act.

Background



San Jose is located at the southern end of the San Francisco Bay Area. Once a small farming city, San Jose has grown to become the tenth largest city in the country. The region is commonly referred to as Silicon Valley.

On June 16, 2009 the San Jose City Council accepted four land use scenarios presented by the Task Force. These scenarios, labeled 1-C, 2-E, 3-K, and 4-J represent varying residential and business growth projections. Each scenario anticipates a different amount of growth over the next 25 years in San Jose; with the majority of projected residential and business growth located along existing and proposed rail corridors. More recently, land-use scenarios 5-H and 6 were presented to the City Council by the Task Force. Scenario SJ 2020 refers to projected

population and business growth in San Jose based on the existing General Plan. This scenario should be viewed as a baseline for growth, since the General Plan was adopted in 1994. The following table is a summary of Task Force scenarios.

Table 1: Projected Growth per Scenario by 2035

Scenario	Projected Growth by Type (In San Jose)
Scenario 1-C	- 262,500 Population Added; 346,550 New Jobs
Scenario 2-E	- 402,000 Population Added; 360,550 New Jobs
Scenario 3-K	- 471,100 Population Added; 339,530 New Jobs
Scenario 4-J	- 262,700 Population Added; 526,050 New Jobs
Scenario 5-H	- 402,000 Population Added; 431,550 New Jobs
Scenario 6	- 355,630 Population Added; 470,000 New Jobs
SJ 2020	- 243,320 Population Added; 255,550 New Jobs

In April, 2010 the San Jose City Council accepted the Task Force and City staff’s recommendation to study land-use scenario 6 in their Environmental Impact Report (EIR), thus making scenario 6 the “preferred” scenario. All other scenarios will be presented in the city EIR as alternatives to the preferred recommendation. This WSA will address all Task Force proposed growth scenarios. Depending upon which scenario is ultimately adopted, the City anticipates between 262,500 and 471,100 more people in San Jose over the next 25 years. In terms of job growth, the City anticipates a minimum of approximately 340,000 new jobs and a maximum of over 526,000 new jobs.

Service Area & Climate

SJWC’s service area spans 139 square miles, including most of the City of San Jose and Cupertino, the entire cities of Campbell, Monte Sereno, Saratoga, the Town of Los Gatos, and parts of unincorporated Santa Clara County.

The San Jose area experiences a low-humidity climate with an average of 15 inches of rain annually. Daily average temperatures range between the high 60’s to mid 80’s (°F) in spring, summer, and fall, and between the high 50’s to low 60’s (°F) in the winter. Most of the precipitation in San Jose occurs between November and March with January and February typically being the wettest months. Further climate data is listed in the following table.

Table 2: Climate Data

	Jan	Feb	Mar	Apr	May	Jun
Average High Temperature (°F)	59	63	67	72	77	82
Average Low Temperature (°F)	42	45	46	48	52	55
Average Precipitation (in)	3.03	2.84	2.69	1.02	0.44	0.10
Evapotranspiration (in)	1.35	1.87	3.45	5.03	5.93	6.71

	Jul	Aug	Sept	Oct	Nov	Dec	Annual
Average High Temperature (°F)	84	84	82	76	65	59	72.5
Average Low Temperature (°F)	58	58	57	52	46	41	50.0
Average Precipitation (in)	0.06	0.07	0.23	0.87	1.73	2.00	15.08
Evapotranspiration (in)	7.11	6.29	4.84	3.61	1.80	1.36	49.35

Population Projections

Past and projected populations within SJWC’s service area are shown in the following table. Population projections for areas outside of San Jose are based on SJWC’s 2005 Urban Water Management Plan (UWMP), which used growth rates identified by the Association of Bay Area Governments (ABAG) in their 2005 population forecast. For purposes of this report, Scenarios 1-C, 2-E, 3-K, 4-J, 5-H, 6 and SJ 2020 are assumed to follow a constant annual population growth rate between 2005 and 2035.

Table 3: Past and Projected SJWC Service Area Population

	2005	2010	2015	2020	2025	2030	2035 ⁽²⁾
Population Projection (excluding San Jose) ⁽¹⁾	153,510	161,185	171,974	183,924	196,753	208,265	220,878
2005 Population of San Jose (within SJWC Service Area)	781,790	-	-	-	-	-	-
San Jose – Scenario 1-C Population Projection (SJWC Service Area)	-	815,657	850,990	887,854	926,315	966,443	1,008,307
San Jose – Scenario 2-E Population Projection (SJWC Service Area)	-	831,159	883,645	939,445	998,770	1,061,840	1,128,894
San Jose – Scenario 3-K Population Projection (SJWC Service Area)	-	837,913	898,064	962,534	1,031,631	1,105,689	1,185,063
San Jose – Scenario 4-J Population Projection (SJWC Service Area)	-	815,638	850,951	887,794	926,231	966,332	1,008,171
San Jose – Scenario 5-H Population Projection (SJWC Service Area)	-	831,159	883,645	939,445	998,770	1,061,840	1,128,894
San Jose – Scenario 6 Population Projection (SJWC Service Area)	-	821,118	862,425	905,809	951,376	999,235	1,049,502
San Jose – SJ 2020 Population Projection (SJWC Service Area)	-	809,015	837,187	866,341	896,510	927,730	960,036
SJWC’s 2005 UWMP Population Projection	935,300	995,900	1,062,500	1,137,600	1,202,100	1,273,200	-

(1) ABAG’s 2005 Projections do not assign population growth rates beyond 2030

(2) Estimated for 2035

(3) The total projected SJWC service area population is the sum of the Scenario increase plus the “excluding San Jose” amount in the first row

Scenarios 1-C, 2-E, 4-J, 5-H and 6 will result in fewer people within SJWC’s service area than estimated in SJWC’s 2005 UWMP, whereas Scenario 3-K anticipates growth which exceeds previous population estimates. By 2030, Scenario 3-K anticipates approximately 40,750 more people than the projected population in SJWC’s 2005 UWMP.

Job Growth Projections

In 2005, per SJWC’s UWMP, there were approximately 52,530 acre-feet of non-residential demand. More than 75 percent of all SJWC service connections are within the City of San Jose, however SJWC data reports do not separate total demand between businesses within San Jose and businesses outside of San Jose. Additionally, the vast majority of SJWC’s industrial connections, which typically use more water than all other types of connections, are within CSJ limits. Therefore, this WSA conservatively assumes 85 percent of all SJWC 2005 business demand was generated by San Jose businesses. The following table estimates business demand for each of the three largest water suppliers in San Jose.

Table 4: Business Demand in San Jose

Name	2005 Business Demand
San Jose Water Company ⁽¹⁾	- 44,651 acre-feet
San Jose Municipal Water ⁽²⁾	- 4,824 acre-feet
Great Oaks Water Company ⁽³⁾	- 2,500 acre-feet
Total	- 51,975 acre-feet

- (1) Assumes 85% of all SJWC business usage is within San Jose
- (2) Based on CSJ Municipal Water 2005 UWMP
- (3) Estimated (Great Oaks Water Co. combines domestic and business demand in their 2005 UWMP)

According to the City of San Jose Berryessa General Plan Amendment, San Jose had approximately 363,380 jobs in 2005. Therefore, by comparing the ratio of SJWC business demand to all City of San Jose business demand and multiplying that percentage by the total number of San Jose jobs, SJWC supplied water to approximately 312,175 jobs within San Jose in 2005. SJWC’s past and projected job growth within San Jose is shown in the following table. Similar to the population projections, Scenarios 1-C, 2-E, 3-K, 4-J, 5-H, 6 and SJ 2020 are assumed to follow a constant annual job growth rate between 2005 and 2035.

Table 5: SJWC’s Past and Projected Jobs in San Jose

	2005	2010	2015	2020	2025	2030	2035*
2005 San Jose Jobs	312,175	-	-	-	-	-	-
Scenario 1-C	-	336,137	361,938	389,719	419,633	451,843	486,525
Scenario 2-E	-	337,498	364,875	394,472	426,471	461,065	498,465
Scenario 3-K	-	335,749	361,103	388,371	417,699	449,241	483,165
Scenario 4-J	-	351,378	395,503	445,170	501,074	563,999	634,825
Scenario 5-H	-	342,646	376,091	412,800	453,093	497,318	545,860
Scenario 6	-	344,791	380,816	420,604	464,550	513,087	566,695
SJ 2020	-	328,430	345,531	363,522	382,450	402,364	423,315

Scenarios 1-C, 2-E, and 3-K anticipate an annual growth rate of approximately 1.5 percent within SJWC’s service area. Scenarios 5-H and 6 anticipate annual job growth rates of approximately 1.9 percent and 2.0 percent respectively. Alternatively, scenario 4-J anticipates an annual job growth rate of nearly 2.4 percent. This scenario doubles the 2005 number of jobs which SJWC supplies water to in San Jose.

Past and Future Water Use

SJWC typically calculates anticipated demand, used to determine sizing for service connections, based upon fixture counts. This practice is consistent with American Water Works Association standards. However, because the 2040 CSJ Envision General Plan is intended to be used as land-use guide for City officials, exact service counts with corresponding fixture units is not possible. To determine existing usage SJWC compared estimated 2005 population and job figures to their corresponding actual demand values.

Table 6: SJWC’s Estimated Demand Per Person in San Jose*

Type	2005 Quantity	2005 Demand (Acre-ft/yr)	Daily Demand
Population	935,300	81,613	78 Gallons Per Person
Business Jobs	312,175	44,651	128 Gallons Per Job

*Population figures and demand assumptions are based on SJWC’s entire service area. Business jobs and business demand assumptions are for San Jose only.

The majority of connections to SJWC’s distribution system are either residential or business. However, SJWC also provides water to private fire services, fire hydrants and agricultural connections. Existing residential demand was calculated to be 78 gallons per person per day (one acre-foot of water is about 325,850 gallons). In San Jose, business demand was found to be 128 gallons per employee per day. Future development in San Jose will likely incorporate low water usage fixtures and landscaping for water conservation. City regulated aggressive conservation would translate into water usage savings beyond the anticipated demand predicted in this WSA.

Table 7: Projected SJWC Water Demands of Envision 2040 General Plan

Demand Scenario	Residential Demand (Acre-ft)	Business Demand (Acre-ft)	Total (Acre-ft)
Scenario 1-C	88,097	69,757	157,854
Scenario 2-E	98,633	71,469	170,102
Scenario 3-K	103,540	69,275	172,816
Scenario 4-J	88,085	91,020	179,105
Scenario 5-H	98,633	78,265	176,897
Scenario 6	91,696	81,252	172,948
SJ 2020	83,880	60,694	144,574

SJWC total demand is not limited to the above estimated customer use. Between six and seven percent of the water produced (pumped, treated, or purchased) is unaccounted for, and as a result, is not billed. Unaccounted for water includes authorized unmetered uses such as fire fighting, main flushing and public use. The remaining unaccounted for water is attributed to meter reading discrepancies, reservoir cleaning, malfunctioning valves, leakage and theft. The following table shows the projected amount of total system demand in 2035, including other cities served by SJWC.



Table 8: SJWC Projected Potable Water Demand in 2035 (Entire System)

Demand Scenario	Residential Demand (Acre-ft)	Business Demand (Acre-ft)	*Unaccounted Water (Acre-ft)	Potable Water Demand (Acre-ft)
Scenario 1-C	107,396	82,038	13,260	202,693
Scenario 2-E	117,931	84,051	14,139	216,121
Scenario 3-K	122,839	81,471	14,302	218,612
Scenario 4-J	107,383	107,044	15,010	229,437
Scenario 5-H	117,931	92,043	14,698	224,672
Scenario 6	110,995	95,556	14,459	221,009
SJ 2020	103,178	71,379	12,219	186,776

*This report estimates unaccounted for water comprises 7% of total system demand

SJWC is an active participant and retailer for the South Bay Water Recycling (SBWR) Program and currently has seventy active recycled water customers that used approximately 1,300 AF/yr for landscape irrigation in 2009. SJWC has estimated that recycled water usage will increase by three percent annually. SBWR, operated by the cities of San Jose, Santa Clara, and Milpitas, sells drought-proof recycled water from the San Jose/Santa Clara Water Pollution Control Plant for use



in landscaping, agriculture, cooling towers, and industrial processes. Recycling water improves the environment and stretches water supply. The following table shows SJWC’s past and projected demand of potable and recycled water for scenario 4-J, which has the largest overall water demand. Rather than showing data for Scenarios 1-C, 2-E, 3-K, 4-J, 5-H and 6 this scenario was

selected because, as shown in Table 8, it requires the maximum SJWC water demand of all six scenarios.

Table 9: SJWC Projected Total Water Demand in 2035 (Entire System)

Scenario 4-J	2005	2010	2015	2020	2025	2030	2035
Potable Water Demand	143,394	154,717	166,988	180,511	195,390	211,568	229,437
Recycled Water Demand*	1,451	1,682	1,950	2,261	2,621	3,038	3,522
Total Demand	144,845	156,399	168,938	182,771	198,011	214,606	232,959

*If recycled water demands increase due to expansion of the recycled water system, then there should be a corresponding decrease in potable water usage

Water Rights, Contracts and Entitlements

SJWC has “pre-1914 surface water rights” to raw water in Los Gatos Creek and local watersheds in the Santa Cruz Mountains. Prior to 1872, appropriative water rights could be acquired by simply taking and beneficially using water. In 1914, the Water Code was adopted and it grandfathered in all existing water entitlements to license holders. SJWC filed for a license in 1947 and was granted license number 10933 in 1976 by the State Water Resources Control Board to draw 6240 AF/yr from Los Gatos Creek. SJWC has upgraded the collection and treatment system that draws water from this watershed to increase the capacity of this entitlement to approximately 11,200 AF/yr for an average rain year.

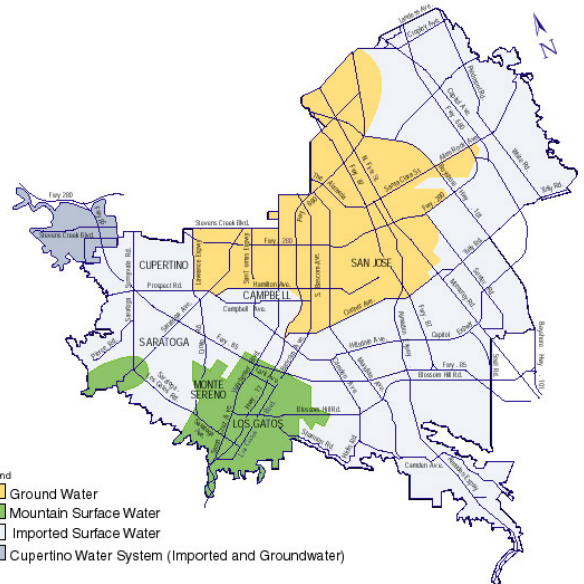


In 1981, SJWC entered into a 70-year master contract with SCVWD for the purchase of treated water. The contract provides for rolling three-year purchase schedules establishing fixed quantities of water to be purchased during each period. The maximum peak day rate for delivery of water from SCVWD under the 2004 - 2005 schedule is 108 MGD. The water is treated at one of the three SCVWD-operated treatment plants (Rinconada, Penitencia and Santa Teresa). SJWC and SCVWD currently have a three year treated water contract (Appendix A), with minimum contract supply ranging from 67,516 AF/yr in fiscal year 2008-2009 to 70,440 AF/yr in fiscal year 2010-2011.

SJWC asks for and receives underground water rights in conjunction with new developments. SJWC has the right to withdraw groundwater from aquifers below said property when in compliance with SCVWD and California Department of Public Health permitting requirements. In Santa Clara County, this right is subject to a groundwater extraction fee levied by SCVWD based on the amount of groundwater pumped into SJWC’s distribution system. SJWC generally uses the most economical source of water, which is largely determined by SCVWD’s groundwater extraction fee rates and contracted water rates.

Sources of Potable Water

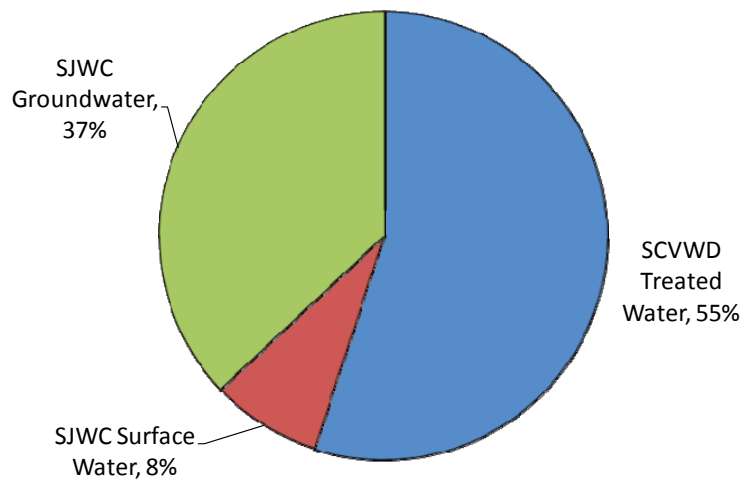
SJWC has three sources of potable water supply: groundwater, imported treated surface water and local surface water. A map of where each source is the predominant source is shown to the right. On average, groundwater comprises just over one third of SJWC's water supply. Ninety-one active, five standby and sixteen inactive wells pump water from the major water-bearing aquifers of the Santa Clara Valley subbasin. These aquifers are recharged naturally by rainfall and streams, and artificially mainly by recharge ponds operated by SCVWD.



SJWC is under contract with SCVWD for the purchase of just over fifty percent of the needed water supply. This water originates from several sources including local reservoirs, but primarily from the State Water Project and the federally funded Central Valley Project. Water is piped into SJWC's system at various turnouts after it is treated at one of the three SCVWD water treatment plants (Rinconada to the west side pipeline and Penitencia and Santa Teresa to the east side pipeline).

SJWC's final source of supply is from surface water in the local watersheds of the Santa Cruz Mountains. It provides approximately five to ten percent of the water supply depending on the amount of annual rainfall. A series of dams and intakes collect water released from SJWC's lakes. The water is then sent to SJWC's Montevina Filter Plant for treatment prior to entering the distribution system. SJWC's Saratoga Treatment Plant draws water from a local stream.

SJWC Sources of Water (5-Year Average 2004-2008)



The following table shows the amount of water supplied to SJWC’s distribution system from each source in 2005 as well as projections until 2035 for Task Force Scenario 4-J. The amount of surface and groundwater for 2010 and forward is based on a five year annual average percentage. The groundwater and SCVWD Treated Water projections include SJWC’s plan to acquire additional water needed for development projects by increasing well production within the distribution system and by purchasing additional treated water from SCVWD and recycled water from the South Bay Water Recycling Program. The overall long-term strategy for groundwater as discussed in the 2003 SCVWD Integrated Water Resource Planning Study (IWRP) Draft is to maximize the amount of water available in the groundwater basins to protect against drought and emergencies. SCVWD seeks to maximize the use of treated local and import water when available.

Table 10: Past and Planned Potable Water Supply – With Conservation (AF/yr)

Scenario 4-J	2005	2010	2015	2020	2025	2030	2035
SCVWD Treated Water	86,400	85,378	93,109	101,628	111,002	121,194	132,451
Groundwater	41,839	57,245	61,786	66,789	72,294	78,280	84,892
Local Surface Water	15,155	12,094	12,094	12,094	12,094	12,094	12,094
Total w/out Conservation	143,394	154,717	166,988	180,511	195,390	211,568	229,437
Conservation ⁽¹⁾	0	-4,868	-11,012	-18,449	-27,292	-37,492	-49,453
Total with Conservation	143,394	149,849	155,976	162,062	168,098	174,076	179,984
2005 UWMP Total⁽²⁾	152,942	158,783	165,278	172,795	178,577	183,958	-

(1) Conservation rate matches 2005 UWMP, but initial conservation quantities have been adjusted since 2005.

(2) 2005 UWMP total potable water demand with conservation in entire system.

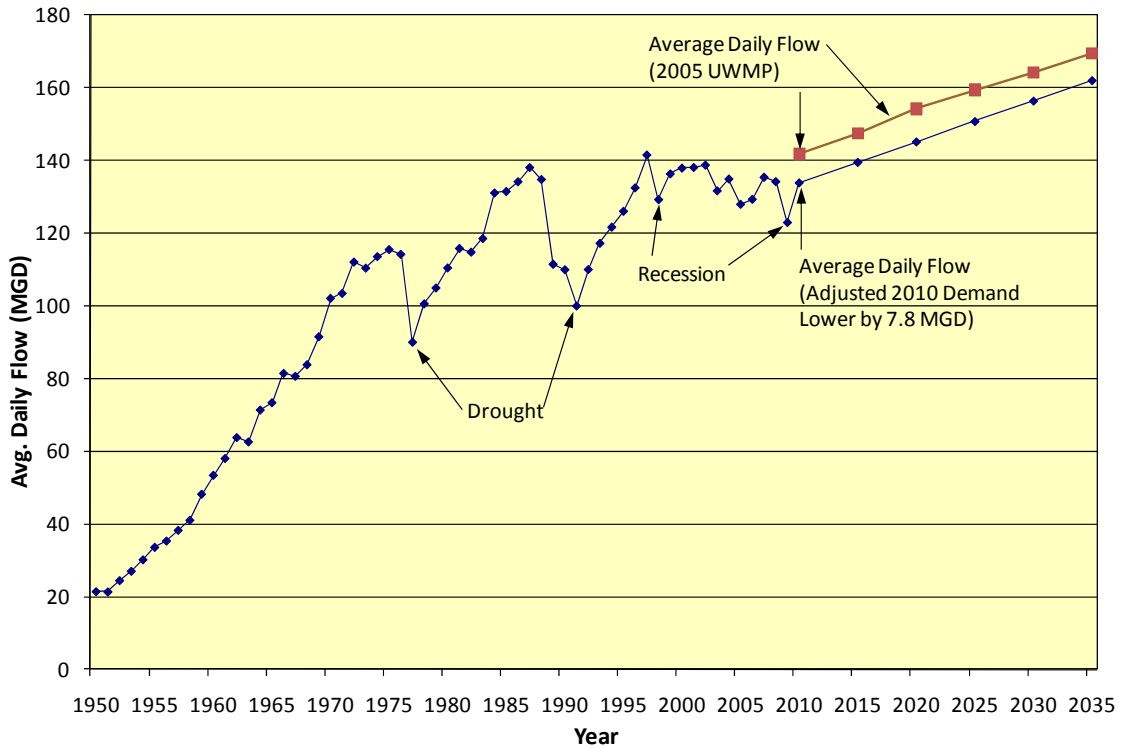
SJWC’s 2005 UWMP assumed an overall increase in conservation of three percent every five years throughout the existing service area beginning in year 2005. It is estimated that overall system water usage growth will be at a rate much lower than population growth. Conservation lowers groundwater and SCVWD treated water needs. The growth in conservation is anticipated as a result of an increase in the use of ultra-low-flush toilets, low-flow showerheads, low water demand washers and dryers, individual conservation, and reductions in landscaping due to development trends. Conservation is assumed to be spread among the residential and business categories in proportion to their anticipated usage. Future groundwater quantities in the Santa Clara Valley subbasin were assumed to follow SJWC’s five-year groundwater trend and comprise 37 percent of total system demand.



Over the four years since SJWC’s 2005 UWMP was approved, the annual average daily flow throughout SJWC’s system has decreased. It is believed that a portion of this decrease can be attributed to efforts by both SJWC and SCVWD to change water-use behavior in response to the

drought over the past few years. In addition, this decrease in usage may be partially attributed to the economic downturn and a shift in San Jose away from single family houses towards condominium, townhome and multi-family residential development which use less landscaping. This WSA anticipates the same growth rate for average daily flow, as reported in SJWC’s 2005 UWMP. However, due to observed usage and demand trends, the 2010 annual average daily flow has been lowered by nearly eight MGD.

**PAST AND PROJECTED SJWC AVERAGE DAILY FLOW
(ANNUAL AVERAGE MGD)**

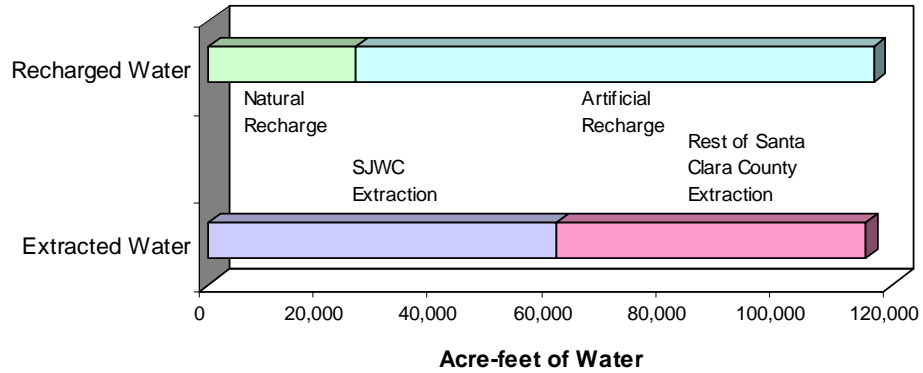


Groundwater Analysis

SJWC draws water from the Santa Clara Valley subbasin (basin) in the north part of Santa Clara County. The basin extends from near Coyote Narrows at Metcalf Road to the County’s northern boundary. It is bounded on the west by the Santa Cruz Mountains and on the east by the Diablo Range; these two ranges converge at the Coyote Narrows to form the southern limit of the basin. The basin is 22 miles long and 15 miles wide, with a surface area of 225 square miles.

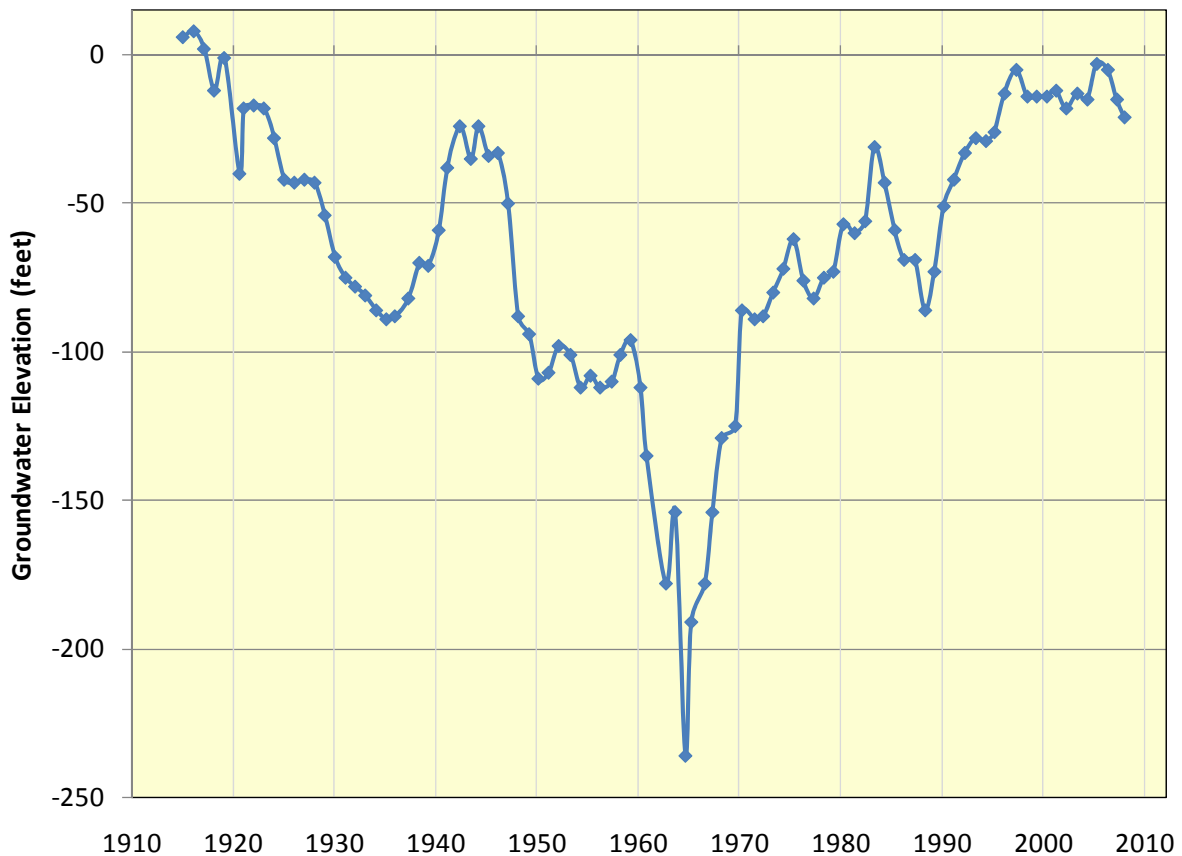
According to SCVWD, 115,358 acre-feet of groundwater was extracted from the basin in 2001. SCVWD estimates that 26,000 acre-feet were naturally recharged to the basin and 90,700 acre-feet were artificially recharged to the basin, mainly through recharge ponds. The following chart shows the water balance of the basin in 2001.

Santa Clara Valley Groundwater Basin Water Balance (2001)



The groundwater elevation in the basin has been steadily on the rise for the past 40 years under the management of the SCVWD. The following chart shows groundwater elevation since 1915 using the well surface elevation as the datum. SCVWD has set up a successful artificial recharge system employing local reservoirs, percolation ponds, and an injection well to supplement the natural recharge of the basin to prevent overdraft. The groundwater basin level is currently high at most SJWC well fields and historically better prepared for the effects of a multi-year drought.

Groundwater Elevation in San Jose Index Well



Groundwater Elevations in San Jose Index Well

SCVWD has advised SJWC against significantly increasing groundwater use in the future. SJWC has discussed the projected increases in supply from groundwater and district treated water with SCVWD. The SCVWD’s 2005 UWMP states operational storage capacity of the basin is estimated to be 350,000 acre-feet. SCVWD’s 2003 IWRP states “although supplies are adequate to meet needs in wet and average years, the expected dry-year shortages will grow over time from approximately 50,000 AF/yr in 2010 to 75,000 AF/yr in 2040.” Based on this, SCVWD has advised groundwater users that exceeding a maximum of 200,000 acre-feet of groundwater extraction per year, or allowing groundwater elevations to drop below subsidence threshold elevations, would risk resumption of unacceptable levels of land surface subsidence.

Over the past five years, SJWC has annually pumped an average of 55,115 AF/yr from the Santa Clara Valley subbasin. Groundwater from the basin is a substantial source of water for SJWC’s entire distribution system. In the past five years, groundwater has been the source for 37 percent of SJWC’s total supply. Based on SJWC’s projections, groundwater will continue to be a vital source of water supply. The following table shows pumping projections and groundwater as a percentage of total supply until 2035.

Table 11: Amount of Groundwater Projected to be Pumped by SJWC (AF/yr)

Basin Name	2005	2010	2015	2020	2025	2030	2035
Santa Clara Valley Subbasin	41,839	57,245	61,786	66,789	72,294	78,280	84,892
% of Supply (w/out Conservation)	29.2%	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%

Water Supply Vulnerability

In all scenarios groundwater by itself will not be sufficient to serve San Jose by 2035. Diversity and redundancy in water supply, and the possibility to have emergency water supplies available in the event of disaster is crucial to sustainability. SCVWD encourages water retailers to provide at least two different sources of supply to ensure emergency water supplies are available in the event treated water supplies are interrupted by disaster. SJWC’s current three sources of water supply and connections to other retail water agencies contribute to SJWC’s ability and flexibility to respond in the event of emergency situations. For added backup, SJWC incorporates diesel fueled generators into its facilities system which will operate wells and pumps in the event of power outages.

SCVWD’s 2003 IWRP predicts shortages in water supply, and the frequency and magnitude of these shortages may be increased in the future. Since SCVWD has influence over approximately 90 percent of SJWC’s annual water supply, SJWC will continue to work with SCVWD to ensure the water supply is reliable, while the impact to the existing Santa Clara Valley subbasin is minimal.

SCVWD recommended in their 2003 IWRP that water supply sources be maintained at 95 percent reliability during significant water shortages that occur during multiyear droughts. To accomplish

this, SJWC can use less groundwater in certain areas or zones to achieve the overall balance which best meets the SCVWD’s and SJWC’s operational goals.

Imported water supplies from both the Central Valley Project (CVP) and the State Water Project (SWP) have come under increased regulatory restrictions, resulting in less imported water than what was stated in SCVWD’s 2005 UWMP. Based on the December 2008 US Fish and Wildlife Services’ Delta smelt Biological Opinion, SCVWD’s CVP and SWP water supplies have been reduced by approximately 15 to 30 percent, depending on water year conditions. In addition, a recent Biological Opinion on salmon has the potential to further reduce imported water supply allocations. Water supply issues associated with the San Joaquin Delta will continue to be a large concern until this problem is resolved.

Transfer and Exchange Opportunities

SJWC’s distribution system has interties with the following retailers in the San Jose area: City of Santa Clara, City of San Jose Municipal Water, Great Oaks Water and the SCVWD West Pipeline in Cupertino. The connection to the SCVWD West Pipeline allows SJWC to provide water to the Cupertino leased system that SJWC operates. SJWC currently has no plans to use these interties for normal system operation as they are exclusively in place for potential emergency sources.

Supply Reliability

To evaluate drought scenarios SJWC applied the base years SCVWD used for the average water year, single-dry water year and multiple-dry water years in the 2005 UWMP. The water years used by SJWC are listed in the following table.

Table 12: Basis of Water Year Data

Water Year Type	Base Year(s)
Average Water Year	1985
Single-Dry Water Year	1977
Multiple-Dry Water Years	1987-1991

Documented in the following table is the quantity of water SJWC received from each source of water during the average water year, single-dry water year and multiple-dry water years. SCVWD added the 100 MGD Santa Teresa Water Treatment Plant in 1989 to increase capacity and redundancy in their source of supply.

Table 13: Historical Water Supply Allocation (AF/yr)

	Average Water Year	Single-Dry Water Year	Multiple-Dry Water Years				
Water Source	Year (1985)	Year (1977)	Year 1 (1987)	Year 2 (1988)	Year 3 (1989)	Year 4 (1990)	Year 5 (1991)
SCVWD Treated	47,061	36,220	57,879	65,935	81,405	64,143	63,093
Local Surface	5,410	1,364	4,576	3,548	6,500	3,719	6,435
Groundwater	94,853	72,962	92,257	81,964	37,020	55,363	42,513
Totals	147,325	110,545	154,712	151,447	124,925	123,225	112,042

The following table takes the supply received in each of the drought years and divides it by the supply received in the average water year to generate a percentage of normal supply SJWC may expect to see during a future drought period.

Table 14: Water Supply Allocation as a Percentage of Normal Water Year (1985)

	Single-Dry Water Year	Multiple-Dry Water Years				
Water Source % of Normal	Year (1977)	Year 1 (1987)	Year 2 (1988)	Year 3 (1989)	Year 4 (1990)	Year 5 (1991)
SCVWD Treated	77.0%	123.0%	140.1%	173.0%	136.3%	134.1%
Local Surface	25.2%	84.6%	65.6%	120.1%	68.7%	118.9%
Groundwater	76.9%	97.3%	86.4%	39.0%	58.4%	44.8%
Totals	75.0%	105.0%	102.8%	84.8%	83.6%	76.1%

Besides a drought, other factors which could cause SJWC’s sources of supply to become inconsistent are summarized below.

Table 15: Causes of Supply Inconsistency

Supply	Legal	Environmental	Water Quality	Climatic	Mechanical
Local Surface			x	x	x
Ground Water		x	x	x	x
SCVWD Treated Water	x	x	x	x	x

Legal - SCVWD is responsible for managing water resources in Santa Clara County, including the long-range planning for additional supplies and/or conservation needed to meet future water demands. SJWC and other retailers work closely with SCVWD to coordinate the purchase of treated imported water and the extraction of groundwater from retailer-owned wells. This activity is important to the operation of the countywide water supply and distribution system and the retailers are dependent on SCVWD’s long-range resource planning.

In determining the long-range availability of water, considerations must also be given to decisions at the state or federal level that are out of the SCVWD’s control. The SCVWD has contracts for

water deliveries with both the State Water Project (SWP) and the Federal Central Valley Project (CVP). Due to flow restrictions for the protection of water quality and the habitat of fish and wildlife in the Delta, water deliveries may be reduced from previous levels. During critical dry periods the SCVWD can expect additional reductions in water deliveries. Long-range planning success depends on the SCVWD's ability to obtain adequate imported water supplies and on proper management of the local groundwater basin.

Environmental & Climatic - SCVWD contracts with the State of California to receive raw water from the California Central Valley through the SWP. Water supplied through this aqueduct (which originates from the Sacramento-San Joaquin Delta) may be limited because of subsidence problems which are beginning to occur in that area and due to pumping restrictions associated with the protection of endangered species. SCVWD has also contracted with the CVP to supply raw water from the San Joaquin Valley via the Santa Clara Conduit. The reliance of water from inland sources through the SWP or the CVP is very critical; the loss of any or all of these sources due to pipe failure, levee failure, earthquake, or human intervention can have an extreme effect on SJWC's water supply. Given the above factors which could result in an inconsistent water supply, it is crucial that SJWC have sufficient backup wells and pumping capacity to supply customers for as long as several months solely from groundwater sources. SJWC believes it has this capacity in an emergency if mandatory conservation is enacted.




Water Quality - The quality of groundwater in the basins, surface water from the Santa Cruz Mountains, or the raw water supply to SCVWD's treatment plants could decrease or be contaminated such that existing treatment facilities are not adequate to meet current drinking water standards. Contamination could cause a source of supply to become unusable until further treatment techniques are utilized, or the contamination is no longer a threat to the source of supply.

Mechanical Failures - All sources of water require mechanical equipment to bring water to the public. Mechanical failures may cause water service shutdowns until repairs are made. To reduce the occurrence of failures, SJWC routinely inspects above-grade facilities at all stations. In addition, SJWC has created and implemented infrastructure replacement programs for all wells and pipelines. To reduce the impact of mechanical failures, SJWC's maintenance department is staffed 24-hours, seven-days a week to respond to and repair any water related emergency.

Water Demand Management Measures

SJWC provides a full range of water conservation services to both residential and commercial customers, the cornerstone of which is the water audit program.

- In 2005, SJWC’s three Water Conservation Inspectors performed over 1,900 water audits. These water audits consist of a SJWC Water Conservation Inspector doing a thorough investigation of the customer’s home or business. The inspector carefully examines the property for leaks and measures the flow rates of all showers, faucets and toilets. The program targets the top 10 percent of users in each water use sector. Actual water savings as a result of audits performed in 2005 were estimated to be 310 AF/yr. The goals of this program are to identify the source of the customer’s water consumption and recommend more efficient water use methods.
- 
- SJWC participates in SCVWD’s residential clothes washer rebate program in which customers can receive a \$100 - \$150 rebate for qualifying high efficiency washing machines. SJWC informs the customers of this program through the water audits, at retail outlets where washing machines are sold, and through the SJWC website. SJWC also augments its water audit program by providing customers with free low flow showerheads and faucet aerators which are purchased by SCVWD. These fixtures are distributed during water audits, at times during customer visits to SJWC’s main office, and during customer participation in public events.
 - SJWC is a wholesale retailer for the South Bay Water Recycling Program which takes treated wastewater that would normally be discharged into the San Francisco Bay and pipes it back for non-potable uses such as landscape irrigation.
 - SJWC has a regular schedule of meter calibration and replacement for all meter types in the distribution system. Larger meters are routinely replaced, repaired and tested based on consumption. Meters 1” and smaller are replaced according to the manufacturer’s recommended service life. If a customer believes the water meter is faulty, the meter is removed and tested. The customer is invited to witness the test in accordance with California Public Utility Commission (CPUC) regulations.
 - SJWC provides and participates in numerous consumer education programs. SJWC has encouraged water conservation to its customers in many ways, including: providing water-efficient plumbing fixture brochures in conjunction with the City of San Jose; providing a landscape irrigation brochure encouraging efficient outdoor water use; and providing annual water quality reports as a bill insert.

- SJWC also attempts to reach the community in ways that go beyond the development and distribution of written materials. These methods include speaking to service groups, civil clubs, school groups and participating in annual Water Awareness Month activities. SJWC also participates in school education programs including: San Jose Unified School SCVWD’s “Adopt a School” program, classroom presentations, and funding for annual science-related field trips.



Supply and Demand Comparison

To strengthen water supply reliability, SJWC has established a well replacement program. The adopted program identifies and replaces two wells per year based on numerous criteria, including a well’s production and observed water quality problems. The replacement of older wells and optimization of existing wells should allow SJWC to meet future groundwater demands. SJWC’s projected supply and demand for Task Force Scenario 4-J is listed in the following table. The following table shows SJWC’s projected supply is sufficient to meet projected demand for Scenario 4-J. This means there is sufficient supply to meet all Task Force scenarios.

Table 16: Supply and Demand Comparison – With Conservation (AF/yr)

Scenario 4-J	2005	2010	2015	2020	2025	2030	2035
Supply	143,394	149,849	155,976	162,062	168,098	174,076	179,984
Demand (Scenario 4-J)	143,394	149,849	155,976	162,062	168,098	174,076	179,984
Difference (All scenarios)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

*If conservation is not as anticipated, a combination of more treated surface water and groundwater will be needed.

Listed in the following tables are comparisons between the 2005 and 2035 projected supply and demand during normal, single-dry and multiple-dry year droughts for Scenario 4-J. These numbers were generated by multiplying the 2005 and 2035 demands (including conservation) by the percentages of normal water supply SJWC experienced during the 1977 single year and the 1987-1992 multi-year droughts. During these drought times, SJWC may experience shortages of supply and will enact the current Water Shortage Contingency Plan (Appendix B). Although there appears to be shortages during droughts, in reality voluntary and involuntary water conservation greatly reduces demand. SJWC foresees meeting all demands in the future.

Table 17: 2005 Supply and Demand for Normal, Single-Dry and Multiple-Dry Years (AF/yr)

2005 Supply & Demand (Scenario 4-J)	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years				
			Year 1	Year 2	Year 3	Year 4	Year 5
Supply Total	143,394	107,546	150,564	147,409	121,598	119,877	109,123
Demand Total	143,394	107,546	150,564	147,409	121,598	119,877	109,123
Difference	(0)	(0)	(0)	(0)	(0)	(0)	(0)

**Table 18:
2035 Projected Supply and Demand for Normal, Single-Dry and Multiple-Dry Years (AF/yr)**

2035 Supply & Demand (Scenario 4-J)	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years				
			Year 1	Year 2	Year 3	Year 4	Year 5
Supply Total	179,984	134,988	188,983	185,024	152,627	150,467	136,968
Demand Total	179,984	134,988	188,983	185,024	152,627	150,467	136,968
Difference	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Summary

SJWC plans on meeting the water supply needs for all City of San Jose Task Force scenarios presented in the CSJ 2040 Envision General Plan. SJWC will continue to work with SCVWD to ensure that needed water supplies are reliably available. With growth, comes an increased need for groundwater supply to be pumped from the Santa Clara Valley subbasin. SCVWD will need to continue to manage groundwater recharge to meet these needs. SJWC will also rely on SCVWD to provide treated surface water necessary for future growth as treated surface water will continue to be the largest portion of future water needs. Additionally, aggressive encouragement of recycled water use and expansion and city regulated conservation would translate into water usage savings beyond the anticipated demand predicted in this WSA.

With regards to costs, SJWC does not anticipate additional storage capacity will be required to meet projected demand. However, development associated with any Task Force land use scenario will require isolated areas of infrastructure improvement. These improvements will typically be paid for by developers on a project specific basis.



APPENDIX A

Business Unit Manager
Water Utility Enterprise
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, Ca. 95118-3686

Dear Ms. Baker:

Attached are the Contract Delivery Schedules in acre feet for the next three-year contract period beginning July 1, 2008. I have separated the deliveries into three schedules as follows:

Cupertino Water System – Rinconada Treatment Plant
San Jose Water Company System – Rinconada Treatment Plant
San Jose Water Company System – Penitencia/Santa Teresa Treatment Plants

The SJWC system deliveries for contract year 2008/2009 have been reduced by 1,524 AF from contract year 2007/2008, the highest year of the previous contract. The reduction is within 95% or the highest year of the previous contract, as allowed in the contract. Deliveries for contract years 2009/2010 and 2010/2011 have increased from contract year 2007/2008 by 103 AF and 1,401 AF. The reasons for conservative contract delivery projections for 2008 through 2010 are:

1. Unaccounted for water in the SJWC system has continued to decrease.
2. Recycled water use has increased and plans for promoting this resource have been enhanced.
3. SJWC customers have responded successfully to voluntary conservation messaging.

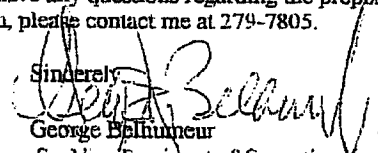
All of the above have contributed to projected system sales that are not increasing significantly at this time.

The contract deliveries for the Cupertino system have increased from the previous contract primarily due to growth and limited non contract water availability at Rinconada.

Regarding the take-or-pay requirements of the contract under reduced deliveries by the district such as rationing or State and Federal water contract cutbacks, it is my understanding that Article C, Sections 4, 4a and 4c of the contract address this issue. If the district is for any reason unable to deliver treated water or should place into effect a water reduction program in excess of 10% of the monthly contract amount, the take-or-pay requirements of the contract would be adjusted to equal the reduced deliveries less 10%.

Please verify with your counsel that this contract interpretation is correct and respond in writing to San Jose Water Company. The contract deliveries as submitted in the attached schedule are contingent on this interpretation. San Jose Water Company reserves the right to change the contracted deliveries if the district does not agree with this interpretation.

Please review and return a signed copy for our files. If you have any questions regarding the proposed delivery schedules as presented or the contract interpretation, please contact me at 279-7805.

Sincerely,

George Belliveau
Sr. Vice President of Operations

CC: w/enc.

Angela Yip, Palle Jensen, Rich Roth; SJWC
Ralph Qualls; Director of Public Works, City of Cupertino
Gienna Brambill; Santa Clara Valley Water District



5750 ALMADEN EXPWY
SAN JOSE, CA 95118-3614
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.scvwd.dst.ca.us
AN EQUAL OPPORTUNITY EMPLOYER

April 2, 2008

Mr. George Belhumeur
Vice President Operations
SAN JOSE WATER COMPANY (CITY OF CUPERTINO)
1221 South Bascom Avenue
San Jose, California 95128

Dear Mr. Belhumeur:

Enclosed you will find a monthly delivery schedule of volume of water in acre-feet you anticipate receiving from the Rinconada, Santa Teresa and Penitencia Water Treatment Plants in each month of the fiscal year 2008-09. Your contract amounts for 2008-2011 are already completed for your convenience. The scheduled amounts are for operating and planning purposes and do not constitute a commitment by the contractor to receive those amounts. The schedule does establish the monthly amounts of treated water to be delivered to the contractor for certain payment provisions under Article C of the Contract. The anticipated monthly delivery schedules for the succeeding 5 fiscal years will be used by the District for planning purposes. An electronic copy of this form is being sent to help expedite your return.

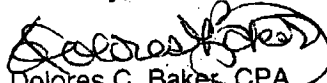
As in the past, additional water will be made available when treatment plant capacity allows. In the event that demand from Rinconada, Santa Teresa and Penitencia exceeds plant capacity; retailers taking deliveries in excess of their proportional allotment will be asked to cut back according to the proportional allotments. The schedule of proportional allotment will be mailed under separate cover by May 31, 2008.

Please provide the monthly allocation of the Annual Total and the peak day delivery equal to 180% of the average daily flow based upon the annual contract volume delivery for succeeding fiscal years. A response to Glenna Brambill's attention by April 30, 2008 is appreciated. If you are sending electronically please send to gbrambill@valleywater.org.

The approved Proposed Three Year Delivery Schedule is enclosed for your records. You will also find enclosed a copy of legal counsel's response to your January 11, 2008 letter.

If you have any questions regarding the schedules, feel free to contact me at 265-2607 extension 2578 or Glenna Brambill at 265-2607 extension 2408. Thank you.

Sincerely,


Dolores C. Baker, CPA
Business Unit Manager
Water Utility Enterprise

Enclosures

cc/enc: L. Acosta, G. Brambill, E. Cote, J. Micko, D. Taylor, R. Yep
db:gb

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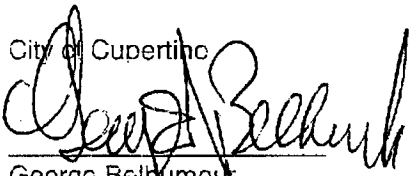


Proposed Three Year Delivery Schedule

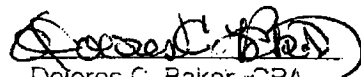
Quantity of Water Requested in Acre-Feet
CITY OF CUPERTINO SYSTEM - REXCOWADA TREATMENT PLANT
(OPERATED BY SAN JOSE WATER COMPANY)

Fiscal year 2008 - 2009	Fiscal year 2009 - 2010	Fiscal year 2010 - 2011
3,400	3,500	3,500

Approved:

City of Cupertino

George Belhumeur

Santa Clara Valley Water District


Dolores C. Baker, CPA

1/11/09
Date

3/8/08
Date

Proposed Three Year Delivery Schedule

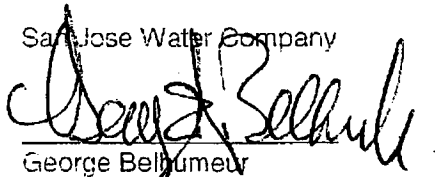
Quantity of Water Requested in Acre-Feet

SAN JOSE WATER COMPANY - BUENAVISTA TREATMENT PLANT

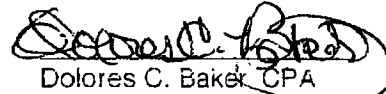
Fiscal year 2008 - 2009	Fiscal year 2009 - 2010	Fiscal year 2010 - 2011
20,255	20,743	21,132

Approved:

Santa Clara Valley Water District


 George Belhumeur

Santa Clara Valley Water District


 Dolores C. Baker CPA

1/11/08
 Date

3/8/08
 Date

Proposed Three Year Delivery Schedule

Quantity of Water Requested in Acre-Feet

SAN JOSE WATER COMPANY - SANTA TERESA / PENITENCIA TREATMENT PLANTS

Fiscal year 2008 - 2009	Fiscal year 2009 - 2010	Fiscal year 2010 - 2011
47,261	48,400	49,308

Approved:

San Jose Water Company

George Benhamour
George Benhamour

Santa Clara Valley Water District

Dolores C. Baker
Dolores C. Baker, CPA

1/11/08
Date

3/8/08
Date

APPENDIX B

WATER SHORTAGE CONTINGENCY PLAN

for

San Jose Water Company
374 West Santa Clara Street
San Jose, CA 95196

Phone No. (408) 279-7922
Fax No. (408) 279-7934

Prepared by: Robert Day
Water Conservation Specialist

Submitted: January 30, 1992

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INTRODUCTION

San Jose Water Company (SJWC) is a public utility in the business of providing water service to a population of approximately 750,000 people in the metropolitan San Jose area. Its service area includes most of San Jose, parts of Cupertino and unincorporated Santa Clara County as well as the entire cities of Campbell, Los Gatos, Monte Sereno and Saratoga. The Company's service area encompasses about 134 square miles and continues to attract residential and commercial development. The number of metered connections on December 31, 1991 was 203,239.

SJWC has three general sources of supply: a) groundwater, b) imported surface water and c) local surface water.

- a) **Groundwater**
Approximately 20 billion gallons of groundwater are pumped annually from 148 wells, fulfilling 45% of the customers' needs.
- b) **Imported Surface Water**
Another 45% of the water supply originates from the State Water Project and the federal Central Valley Project (CVP) San Felipe Division. This "imported" water is purchased from the Santa Clara Valley Water District and piped into SJWC's system.
- c) **Local Surface Water**
Surface water from local watersheds in the Santa Cruz Mountains typically provides the remaining 8-10% of the total water supply.

SJWC does not currently distinguish between single family, multifamily, commercial, industrial and governmental accounts.

Overall demand is expected to increase at a much slower pace in the next three years than prior to 1985. This is because of permanent conservation measures, awareness of the drought and limited growth in the local economy.

SJWC, the District and the City of San Jose have been working with the residential and commercial sectors to develop a comprehensive plumbing retrofit program in an effort to realize permanent water savings. This may include incentives for the installation of Ultra Low Flush toilets and the distribution and possible installation of low-flow showerheads and faucet aerators. This major conservation effort will likely result in a significant reduction in customer demand during the next several years.

Agricultural demand is expected to diminish as the metropolitan area continues to grow. SJWC expects to have fewer than a dozen agricultural customers by 1995.

Section Three **Worst Case Water Supply Scenarios**

As outlined in the Introduction, San Jose Water Company purchases most of its water from the Santa Clara Valley Water District. The District is the lead agency in ensuring adequate water supplies, not only for SJWC, but for twelve other water retailers in Santa Clara County.

The District has developed a "worst-case" scenario for 1992-94 in which imported water from the San Felipe Project would be reduced each year to 50 per cent of the full entitlement. Water from the State Water Project would be reduced to 20 per cent of the full entitlement. The scenario also projects a decrease in local water supplies. The District said it would respond to the worst-case scenario by pursuing aggressive conservation programs and by seeking additional water transfers to help alleviate the supply shortfall.

Section Four **Stages of Action**

Although San Jose Water Company has the authority to declare a water shortage emergency under Sections 350-358 of the State Water Code, it has historically followed the leadership of the Santa Clara Valley Water District's Board of Directors. During the current drought situation, for example, SJWC has agreed to implement each conservation goal approved by the District's Board of Directors.

The District has approved a four-stage plan that addresses shortages of up to 50% of full supply. A copy of this plan is included in **Appendix A**.

Section Five

Mandatory Prohibitions on Water Use

San Jose Water Company included as part of its mandatory water rationing plan, a list of water uses that are classified as "nonessential or unauthorized". These prohibited uses, possible penalties and the enforcement mechanism are outlined in Rule Number 14.1 on file with the California Public Utilities. A copy of Rule 14.1 is included in **Appendix B**.

Section Six

Consumption Limits

In March of 1991, the Santa Clara Valley Water District's Board of Directors asked all local water retailers to increase the conservation goal of mandatory water rationing plans from 20% to 25%. San Jose Water Company responded by filing for a change to its mandatory water rationing program, reflecting the 25% figure. This change was ultimately approved by the California Public Utilities Commission.

In order to meet the 25% annual usage reduction, SJWC implemented different conservation goals for winter and summer months. A winter-summer program was chosen because during the winter it is more difficult to make large water savings solely from indoor use. Landscape watering during the summer offers the most opportunity to reach higher water savings. From April to October, the goal is 30%. The conservation goal for November to March is 15%. The year upon which customer water allocations are based continues to be 1987. The allocation for each customer using process water is 90% of the amount used in 1987.

Under SJWC's rationing program, customers have the right to appeal their allocations. If a customer feels his allocation is inadequate for his particular situation, he may appeal the allocation in writing.

SJWC's conservation goals comply with the request made by the Santa Clara Valley Water District. In the event the District determines the need for additional water usage reductions, SJWC would adjust the conservation goals as appropriate.

Section Seven

Fees for Excess Use

As outlined in Section Six, each San Jose Water Company customer is given a water allocation. This is the amount of water that can be used by the customer without penalty. In the event the customer exceeds the allocation in a two-month billing period, a conservation fee is assessed. No penalties are applied to any dwelling unit that uses 12 ccf or less of water during any two-month allocation period. Additionally, no penalties are applied to any account that has cumulatively used less water than allocated since the rationing plan began. This concept is termed "banking".

Section Ten

Water Use Monitoring Procedures

San Jose Water Company prepares comprehensive water production statistics on a daily basis. This report compares water production to the same period the previous year and to 1987 upon which the water allocations for rationing are based. Copies of the report are circulated to several key SJWC personnel, including the President.

SJWC submits monthly production totals to the Santa Clara Valley Water District for inclusion in its Drought Status Report.

Section Eleven

Plan Adoption Standards

San Jose Water Company prepared this Water Shortage Contingency plan during December 1991 and January 1992. The Plan includes all the information necessary to meet the requirements of the California Water Code.

APPENDIX A

4. STAGES OF ACTION

The District has drawn from its experience in responding to the current drought to develop a staged response plan to water supply shortages. This plan ties action stages to specific reductions in supply. The plan includes both voluntary and mandatory components and addresses shortages of up to 50% of full supply.

Table 4.

Santa Clara Valley Water District
Rationing Stages and Reduction Goals

Shortage	Stage	Demand Reduction Goal	Program
Up to 15%	Stage 1	Up to 15% Reduction	Voluntary
15-25%	Stage 2	25% Reduction	Mandatory
25-35%	Stage 3	35% Reduction	Mandatory
35-50%	Stage 4	50% Reduction	Mandatory

Description Of Stages

- Stage 1 Reduction in overall supply (any source) which results in an unserved demand of up to 15% of total projected demand.
- Stage 2 Significant reduction in one or more sources of supply which results in an unserved demand of up to 25% of the total projected demand.
- Stage 3 Serious reduction in two or more sources of supply which results in an unserved demand of up to 35% of the total projected demand.
- Stage 4 Critical reduction in all imported sources and serious shortage in local ground water basins which result in an unserved demand of up to 50% of the total projected demand.

As a wholesale supplier of water, the District must work closely with local retail water agencies to implement any action stages. As part of this cooperative effort, the District relies on these retail agencies to determine priorities for use of available water.

Water Supply Shortage Management Plan

Stage 1. 10% Voluntary Program

- Institute voluntary water use reduction goals and water use prohibitions.
- Coordinate water conservation program with local retail agencies.
- Initiate Public Information Program.
- Offer water conservation kits to the public.
- Prepare and distribute water conservation literature through local retail water suppliers and other agencies.
- Initiate a media campaign including news releases and an advertising campaign.

Stage 2. 25% Mandatory Program

- Continue and intensify all activities undertaken during Stage 1.
- Institute mandatory water use reduction program.
- Institute additional water use prohibitions.
- Promote the installation of water saving devices such as ULF Toilets and showerheads.
- Seek to acquire water transfers to augment sources of imported water.
- Enhance water supply system operation to increase efficiency.
- Monitor and report on monthly production to ensure compliance with necessary reductions.

Stage 3. 35% Mandatory Program

- Continue and intensify all activities undertaken during Stages 1-2.
- Institute additional water use prohibitions.
- Coordinate with local agencies to defer installation of all new landscape.

Stage 3 (continued)

- Lobby local agencies to enforce ban on use of water from hydrants or other unmetered sources.
- Monitor and report on weekly production to ensure compliance with necessary reductions.

Stage 4. 50% Mandatory Program

- Continue and intensify all activities undertaken in Stages 1-3.
- Implement inclining rate for ground water pumping.
- Institute a ban on all irrigation.

APPENDIX B

Rule No. 14.1

MANDATORY WATER RATIONING PLAN

GENERAL INFORMATION

When water supplies are projected to be insufficient to meet normal customer demand, the utility may elect to implement voluntary conservation using the portion of this plan set forth in Section A of this Rule after notifying the Commission's Water Utilities Branch of its intent.

If, in the opinion of the utility more stringent water conservation measures are required, the utility shall request Commission authorization to implement the mandatory conservation and rationing measures set forth in Section B.

The Commission shall authorize mandatory rationing by approving Schedule No. 14.1, Mandatory Water Rationing Plan, Fees and Allocations upon the earliest Commission meeting after the utility files an advice letter petitioning such request. When Schedule No. 14.1 has expired or is not in effect, mandatory rationing measures will not be in force. Schedule No. 14.1 will set forth water use allocations, excess water use penalties, charges for removal of flow restrictors, and the period during which mandatory rationing measures will be in effect.

When Schedule No. 14.1 is in effect and the utility determines that water supplies are again sufficient to meet normal demands and mandatory rationing measures are no longer necessary, the utility shall rescind Schedule No. 14.1 upon five days' written notice to the Commission.

In the event of a water supply shortage requiring a voluntary or mandatory program, the utility shall make available to its customers water conservation kits as required by Rule No. 20. The utility shall notify all customers by bill insert of the availability of conservation kits.

A. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE

No customer shall use utility-supplied potable water for nonessential or unauthorized uses as defined below:

(continued)

(To be inserted by utility)	Issued by	(To be inserted by Cal. P.U.C.)
Advice No. <u>239</u>	<u>Fred R. Meyer</u>	Date Filed <u>NOV 25 1991</u>
Dec. No. <u>91-10-042</u>	<u>Vice President,</u>	Effective <u>JAN 4 1992</u>
	<u>Regulatory Affairs</u>	Resolution No. _____
	TITLE	

(N)

(N)

(T)

Rule No. 14.1
(continued)

MANDATORY WATER RATIONING PLAN

A. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE (continued)

1. Use of water through any connection when the utility has notified the customer in writing to repair a broken or defective plumbing, sprinkler, watering or irrigation system and the customer has failed to make such repairs within 7 days after receipt of such notice.
2. Use of water which results in flooding or run-off in gutters, waterways, patios, driveways, or streets.
3. Use of water for washing aircraft, cars, buses, boats, trailers or other vehicles without a positive shutoff nozzle on the outlet end of the hose, except for the washing of vehicles at commercial or fleet vehicle washing facilities operated at fixed locations where equipment using water is properly maintained to avoid wasteful use.
4. Use of water for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas unless required for health and/or safety.
5. Use of water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
6. Use of water for new landscaping in connection with any new construction unless required by a public authority.
7. Use of water for outside plants, lawn, landscape and turf areas during certain hours when specified in Schedule No. 14.1.
8. Use of water for watering outside plants and turf areas using a hand-held hose without a positive shut-off valve.
9. Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds.
10. Service of water by any restaurant except upon the request of a patron.

(T)

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(N)

(N)

(continued)

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	TITLE	

Rule No. 14.1
(continued)

MANDATORY WATER RATIONING PLAN

A. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE (continued)

11. Use of water to flush hydrants, except where required for public health or safety.

(L)

B. RATIONING OF WATER USAGE

In the event the conservation measures required by Section A are insufficient to control water use, the utility shall, upon Commission approval, impose mandatory rationing. The water allocated for each customer, the time period during which rationing shall be in effect, and any additional conditions, will be set forth in Schedule No. 14.1, which shall be filed for this purpose at the time such rationing is approved by the Commission.

(N)

Before rationing is authorized by the Commission the utility shall hold public meetings and take all other applicable steps required by Sections 350 through 358 of the California Water Code.

(N)

C. CONSERVATION FEE (Effective only when Schedule 14.1 is effective)

(T)

1. A conservation fee per 100 cubic feet of water used in excess of the applicable allocation during each read to read billing period shall be charged by the utility on all read-month bills rendered on and after the effective date of Schedule 14.1 (which include services rendered during the effective dates of the plan as set forth under special conditions in Schedule 14.1). Such conservation fees shall not apply to any customer and/or dwelling unit whose consumption per billing period per dwelling unit is less than the minimum allocation set forth in Schedule 14.1. Where multiple dwellings are served by one meter, the customer must notify the utility in writing of the number of dwelling units. Additionally, a conservation fee does not apply to any customer whose total consumption to date during the period this rationing plan has been in effect does not exceed the total allocated usage for said period. The conservation fee charged for excessive use is set forth in Schedule 14.1.

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(continued)

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Rule No. 14.1
(continued)
MANDATORY WATER RATIONING PLAN

C. CONSERVATION FEE (Effective only when Schedule 14.1 is effective)
(continued)

(N)

2. The procedure defined in 1 above is more commonly referred to as "Banking".

"Banking" is the product of the cumulative allocation process.

Allocations are set based on a level of usage which is the result of reducing a base period usage, set forth in Schedule 14.1, for the metered service being billed by the target conservation goal also set forth in Schedule 14.1. After this base allocation, allocation adjustments may be given but upon written appeal only. The allocations are based upon two-month periods because the meters are read every other month. All allocations and the resulting bank status are shown on each months' bill.

The current mandatory rationing goal is shown in Schedule 14.1.

"Banking" allows a customer who uses less water than allocated to "Bank" the difference. The over-conserved water can be used during future allocation periods without the customer being assessed a conservation fee.

If a customer exceeds his allocation and pays a conservation fee, he can receive a refund of those fees by using less water than allocated during a future allocation period. The limit of recovery is the amount of conservation fees paid by that customer.

"Banks" are specific to a metered service. If a customer moves, he cannot transfer his "Bank" to his new address. In addition, the new resident at the previous address will receive a zero "Bank" balance. All new customers begin with a zero "Bank" balance.

"Banks" terminate when Schedule 14.1 is rescinded and will not be carried forward from one rationing period to another non-continuous rationing period if 12 months or more separate the two periods unless permitted by the Company.

(N)

(continued)

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	TITLE	

Rule No. 14.1

MANDATORY WATER RATIONING PLAN
(continued)

C. CONSERVATION FEE (Effective only when Schedule 14.1 is effective)
2. (continued)

(N)

If a customer feels his allocation is inappropriate for his particular situation, he may appeal to the utility, in writing. Appeal forms are available at the utility office or by calling the Customer Service Department. Appeals are not handled by phone.

Appeals for periods prior to the most recent read month bill will not be approved. Allocation adjustments will apply to the current and future billing periods only.

(N)

- 3. Any monies collected by the utility through conservation fees, after reduction for refunds under "banking" and normal business adjustments for billing errors, leak policy adjustments, collection adjustments, allocation adjustments etc., shall be accounted for through a suspense account as authorized by the California Public Utilities Commission.

(L)

(L)

D. ENFORCEMENT (Effective when Schedule 14.1 is effective)

(T)

- 1. The water use restrictions of the conservation program in Section A of this rule become mandatory when Schedule 14.1 is effective whether or not the customer exceeds the monthly water allocation.
- 2. Upon inception of the mandatory provisions of this Rule the utility may, after one verbal and two written warnings, install a flow-restricting device on the service line of any premises where utility personnel observe water being used for any nonessential or unauthorized use as defined in Section A.
- 3. A flow restrictor shall not restrict water delivery by greater than 50% of normal flow and shall provide the premises with the minimum amount per dwelling unit set forth in Schedule 14.1. The restrictor may be removed only by the utility, after a three-day period has elapsed, and upon payment of the appropriate removal charge as set forth in Tariff Schedule No. 14.1.

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(continued)

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Rule No. 14.1
(continued)

MANDATORY WATER RATIONING PLAN

D. ENFORCEMENT, (Effective only when Schedule 14.1 is effective)
(continued)

(N)

- 4. After the removal of a restricting device, if any nonessential or unauthorized use of water continues, the utility may install another flow-restricting device. This device shall remain in place until rationing is no longer in effect and upon payment of the appropriate removal charge as set forth in Schedule No. 14.1.
- 5. Each customer's water allocation shall be shown on the water bill. Water allocations may be appealed in writing as provided in Section C.3. of this Rule. If a customer uses water in excess of the allocated amount, the utility may charge the conservation fee shown in Schedule No. 14.1.
- 6. If despite installation of such flow-restricting device pursuant to the provisions of the previous sentence, any such nonessential or unauthorized use of water shall continue, then the utility may discontinue water service to such customer. In such latter event, a charge as provided in Rule No. 11 shall be paid to the utility as a condition to restoration of service. It is the intent of the utility that restriction devices will not be installed in a customer's service for exceeding a monthly allocation if a customer's accumulated usage does not exceed his accumulated allocation beginning with bills rendered after the effective date of Schedule 14.1.

(N)

E. APPEAL PROCEDURE

Any customer seeking a variance from any of the provisions of this water rationing plan shall notify the utility in writing, setting forth in detail the grounds therefore. The utility shall respond to each such request. Any customer not satisfied with the utility's response may file an appeal to the Staff of the Commission requesting relief. The customer and the utility will be notified of the disposition of such appeal by letter from the Executive Director of the Commission. If the customer disagrees with such disposition, he shall have the right to file a formal complaint with the Commission. Except as set forth in this Section E, no person shall have any right or claim in law or in equity, against the utility because of, or as a result of, any matter or thing done or threatened to be done pursuant to the provisions of this water rationing plan.

(continued)

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	TITLE	

SAN JOSE WATER COMPANY (U168W)
San Jose, California Canceling

Original

Cal. P.U.C. Sheet No. 760-W

Cal. P.U.C. Sheet No. _____

Rule No. 14.1

(continued)

MANDATORY WATER RATIONING PLAN

F. PUBLICITY

In the event the utility finds it necessary to implement Schedule 14.1, it shall notify customers and hold public hearings concerning the water supply situation, in accordance with Chapter 3, Water Shortage Emergencies, Sections 350 through 358, of the California Water Code. The utility shall also notify customers of the details of the plan by one or more of the following means - billing insert, special mailing, poster, flyer, newspaper advertisement, television or radio spot/advertisement, community bulletin board or other appropriate method(s). The utility shall provide customers with periodic updates regarding its water supply status and the results of customers' conservation efforts through the above mentioned media.

(To be inserted by utility)

Issued by

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Fred R. Meyer

Date Filed NOV 25 1991

Vice President,

Effective JAN 4 1992

Dec. No. 91-10-042

Regulatory Affairs

Resolution No. _____

TITLE

APPENDIX C

Projected Revenues & Expenditures With No Rate Relief

	<u>Normal</u>	<u>Conservation with No Rate Relief</u>			
		15%	25%	35%	50%
Revenue	90,960.0	89,280.0	81,417.0	73,556.0	61,762.0
Operating Expenses					
Variable production costs	43,233.8	42,160.8	37,202.8	32,243.8	24,805.8
Administrative, Operation & Maintenance Expenses	25,103.8	25,103.8	25,103.8	25,103.8	25,103.8
Other Taxes	2,825.3	2,825.3	2,825.3	2,825.3	2,825.3
Income Taxes	<u>6,984.9</u>	<u>6,740.9</u>	<u>5,570.9</u>	<u>4,403.9</u>	<u>2,649.9</u>
Total expenses	78,147.8	76,830.8	70,702.8	64,576.8	55,384.8
Income before Interest Expense	<u>12,812.2</u>	<u>12,449.2</u>	<u>10,714.2</u>	<u>8,979.2</u>	<u>6,377.2</u>

Projected Revenues & Expenditures With Rate Relief

	<u>Normal</u>	<u>Conservation Levels With Rate Relief</u>			
		15%	25%	35%	50%
Revenue	90,960.0	89,707.8	84,924.8	80,143.8	72,968.8
Operating Expenses					
Variable production costs	43,233.8	42,160.8	37,202.8	32,243.8	24,805.8
Administrative, Operation & Maintenance Expenses	25,103.8	25,103.8	25,103.8	25,103.8	25,103.8
Other Taxes	2,825.3	2,825.3	2,825.3	2,825.3	2,825.3
Income Taxes	<u>6,984.9</u>	<u>7,021.9</u>	<u>7,196.9</u>	<u>7,374.9</u>	<u>7,637.9</u>
Total expenses	78,147.8	77,111.8	72,328.8	67,547.8	60,372.8
Income before Interest Expense	<u>12,812.2</u>	<u>12,596.0</u>	<u>12,596.0</u>	<u>12,596.0</u>	<u>12,596.0</u>

APPENDIX D

**NOTICE OF TIME AND PLACE
OF PUBLIC HEARING ON
WATER SHORTAGE
CONTINGENCY PLAN FOR
SAN JOSE WATER COMPANY**

NOTICE that on January 28, 1992 at 10:00 AM at the office of San Jose Water Company, 374 West Santa Clara Street, San Jose, California, a public hearing will be held to receive comments and recommendations on the Water Shortage Contingency Plan for San Jose Water Company.

Said Plan is on file in the office of San Jose Water Company, 374 West Santa Clara Street, San Jose, and may be seen there by any interested person.

At the time and place fixed for said hearing, the Company will consider all written and oral objections to the Plan. Upon conclusion of the hearing the Plan will be submitted to the California Department of Water Resources.