

1. EXECUTIVE SUMMARY

This report is a countywide service review report on water services prepared for the Santa Clara Local Agency Formation Commission (LAFCO). A service review is a State-required comprehensive study of services within a designated geographic area, in this case, Santa Clara County. The service review requirement is codified in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56000 et seq.). After findings are adopted, the Commission will begin the process of updating the spheres of influence (SOIs) of water providers in Santa Clara County. This report recommends SOI updates for the special districts for the Commission's consideration.

PROVIDERS

Overview

This report reviews water services in Santa Clara County, including how these services are provided by the special districts, cities and other providers not under LAFCO jurisdiction. All agencies covered in this report and the services provided by each are shown in Figure 1-1.

There are 15 agencies under LAFCO jurisdiction that are covered in this report—eight cities and seven special districts. Of these 15 providers, 11 provide potable retail water services. Santa Clara Valley Water District (SCVWD) is the only wholesaler among the water purveyors under LAFCO jurisdiction. SCVWD also provides several countywide water management services, not provided by other agencies, including flood control, groundwater management and recharge, and regional water resource planning. Loma Prieta Resource Conservation District (LPRCD) and Guadalupe-Coyote Resource Conservation District (GCRCDD) provide resource conservations services, including watershed stewardship activities. Pacheco Pass Water District (PPWD) provides groundwater recharge services. PPWD is under the jurisdiction of San Benito LAFCO, which is responsible for adopting determinations and updating the District's SOI.

Other water providers in Santa Clara that are not under LAFCO jurisdiction, but are relevant to the discussion of water services within the County, are discussed in Chapters 18 through 26 to the extent necessary to establish relationships, quantify services, and provide a comprehensive overview of water services countywide. Large private water purveyors within the County, which are covered in this report, include San Jose Water Company, California Water Service Company, Great Oaks Water Company, West San Martin Water Works, and Stanford University. Other related agencies that influence water service in the County, include San Francisco Public Utilities Commission and the Bay Area Water Supply and Conservation Agency. The County's four recycled water producers are also included here for a comprehensive review of water supply sources.

For a geographic overview of the agencies covered, please refer to Figures 1-3 and 1-4.

Figure 1-1: Santa Clara Water Service Providers

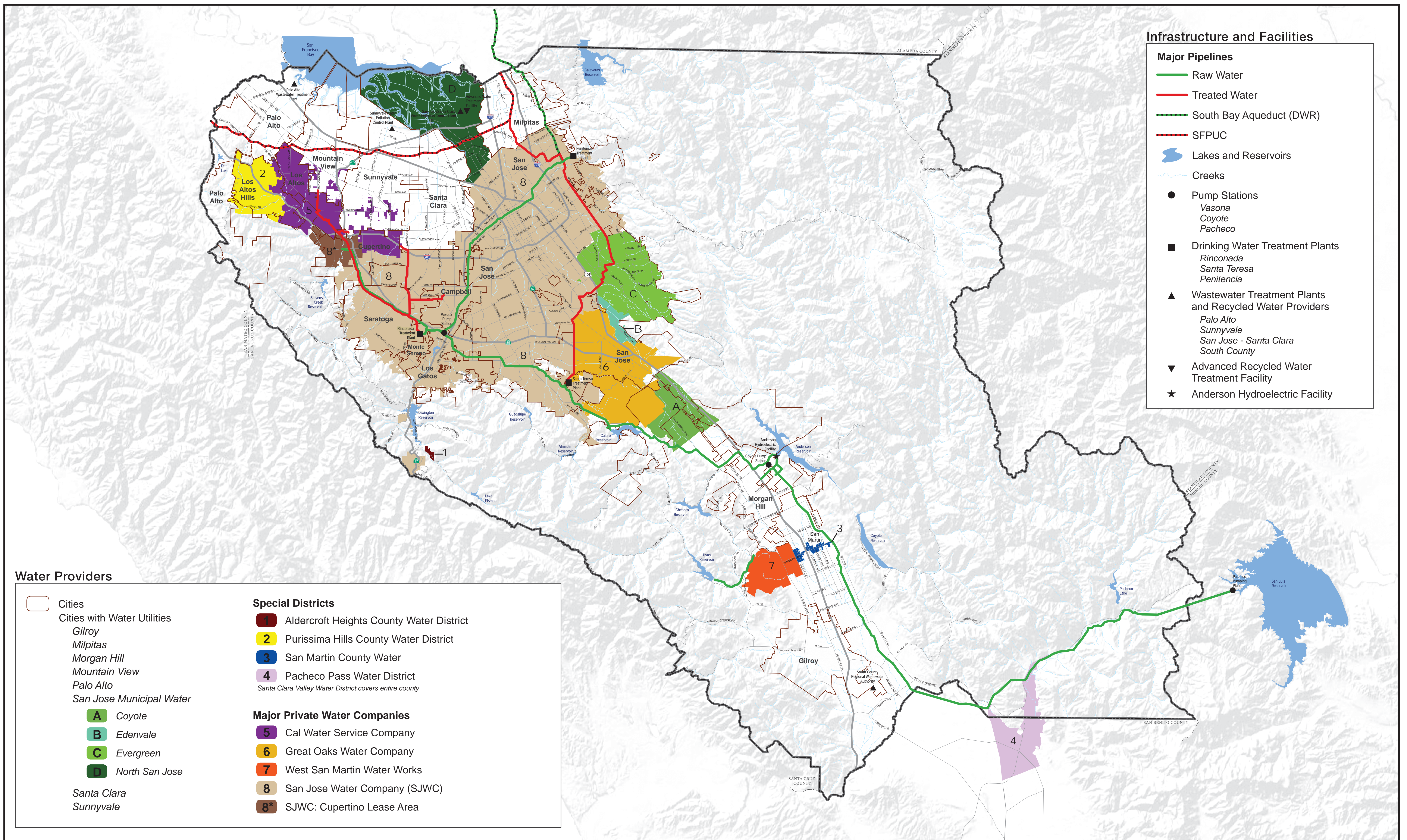
Agency	Retail		Services								
	Potable	Recycled	Treatment	Distribution	Wholesale	Maintenance	Watershed Stewardship	Flood Control/Stormwater	Groundwater Management	Groundwater Recharge	Regional Water Planning
Agencies Under LAFCO Jurisdiction											
Santa Clara Valley Water District		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Aldercroft Heights County Water District	✓		✓	✓		✓					
Purissima Hills Water District	✓			✓		✓					
San Martin County Water District	✓		✓	✓		✓					
Pacheco Pass Water District											✓
Guadalupe-Coyote Resource Conservation District							✓				
Loma Prieta Resource Conservation District							✓				
City of Gilroy	✓	✓		✓		✓		✓			
City of Milpitas	✓	✓		✓		✓		✓			
City of Morgan Hill	✓		✓	✓		✓		✓			
City of Mountain View	✓	✓		✓		✓		✓			
City of Palo Alto	✓	✓		✓		✓		✓			
San Jose Municipal Water	✓	✓		✓		✓		✓			
City of Santa Clara	✓	✓		✓		✓		✓			
City of Sunnyvale	✓	✓		✓		✓		✓			
Agencies Not Under LAFCO Jurisdiction											
San Jose Water Company	✓	✓	✓	✓	✓	✓					
California Water Service Company	✓			✓		✓					
Great Oaks Water Company	✓			✓		✓					
West San Martin Water Works	✓		✓	✓		✓					
Stanford University	✓			✓		✓					
San Francisco Public Utilities Commission	✓		✓	✓	✓	✓	✓	✓			✓
Bay Area Water Supply and Conservation Agency											✓
South County Regional Wastewater Authority		✓	✓		✓	✓					
South Bay Water Recycling		✓	✓	✓	✓	✓					
Palo Alto Regional Water Quality Control Plant		✓	✓		✓	✓					
Sunnyvale Water Pollution Control Plant		✓	✓			✓					

All agencies covered in this report, the number of connections served and the amount of water produced or imported are shown in Figure 1-2.

Figure 1-2: Santa Clara Water Service Providers

Agency	Connections	Water Produced and/or Purchased in 2010 (Acre Feet)
Agencies Under LAFCO Jurisdiction		
Santa Clara Valley Water District	NA	104,921
Aldercroft Heights County Water District	117	16
Purissima Hills Water District	2,176	1,903
San Martin County Water District	189	114
Pacheco Pass Water District	NA	NA
Guadalupe-Coyote Resource Conservation District	NA	NA
Loma Prieta Resource Conservation District	NA	NA
City of Gilroy	12,905	7,322
City of Milpitas	16,351	11,034
City of Morgan Hill	12,132	7,888
City of Mountain View	17,365	11,348
City of Palo Alto	20,238	13,065
San Jose Municipal Water	23,469	22,291
City of Santa Clara	26,985	23,214
City of Sunnyvale	29,257	21,465
Agencies Not Under LAFCO Jurisdiction		
San Jose Water Company	222,450	133,066
California Water Service Company	18,310	11,648
Great Oaks Water Company	20,628	11,021
West San Martin Water Works	253	303
Stanford University ¹	1,416	2,800
San Francisco Public Utilities Commission	NA	254,497
Bay Area Water Supply and Conservation Agency	NA	NA
South County Regional Wastewater Authority	22	2,040
South Bay Water Recycling	~600	8,650
Palo Alto Regional Water Quality Control Plant	7	2,450
Sunnyvale Water Pollution Control Plant	112	1,330
Notes:		
1) Since the University chose to not participate in this water service review and update the information from the previous service review, the number of connections and acre feet produced are from 2004.		

Figure 1-3



Water Service Providers in Santa Clara County

September 2011


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Miles


This map created by the Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
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Figure 1-4


Resource Conservation Districts and Watersheds in Santa Clara County


-  Resource Conservation Districts


 Lakes and Reservoirs


 Creeks


 City Limits (Incorporated Areas)
- SCVWD Watersheds**

 Coyote Watershed

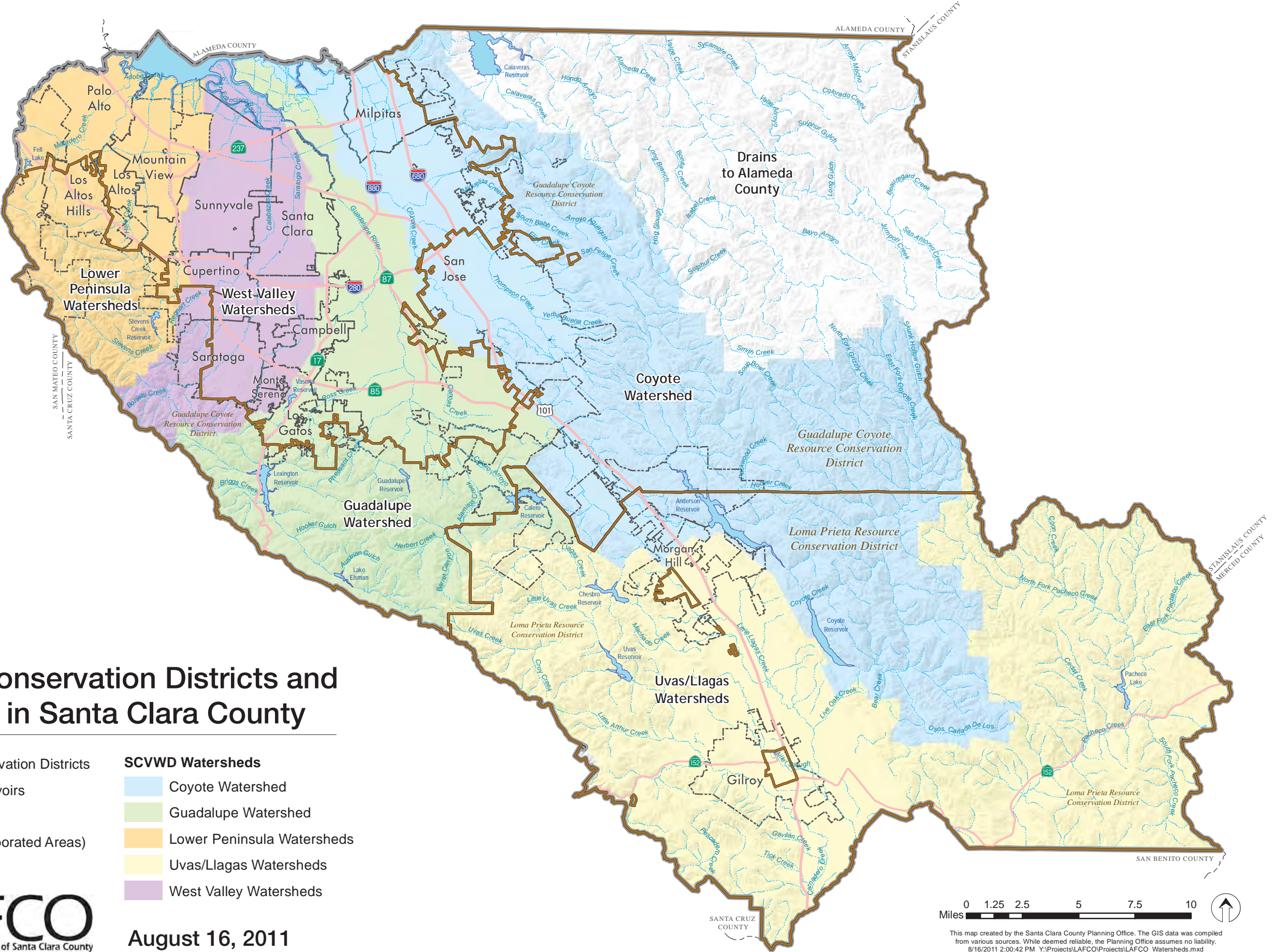
 Guadalupe Watershed

 Lower Peninsula Watersheds

 Uvas/Llagas Watersheds

 West Valley Watersheds

August 16, 2011



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COUNTYWIDE WATER SUPPLY SYSTEM

Overview

Santa Clara County relies on three main sources of water: groundwater from the Santa Clara Valley Basin, local surface water from creeks and streams, and imported water delivered through the Hetch Hetchy Water System, the State Water Project, and the Central Valley Project. Each of these resources is integral to the overall supply, although there are distinct differences in the sources available within the County's sub-regions. The southern portion of the County is entirely dependent on groundwater for its potable supply. There are currently no other potable water supply alternatives in the area. The northern portion of the County utilizes all three sources—groundwater, local surface water and imported water—although the amount supplied by each source varies by locale.

The two primary wholesale water agencies serving the County are Santa Clara Valley Water District (SCVWD) and San Francisco Public Utilities Commission (SFPUC). SCVWD treats local and imported surface water for further distribution to the water retailers. SCVWD is the designated groundwater management agency for Santa Clara County and is responsible for managing the groundwater resources, including all natural and artificial recharge facilities. The extent of the services provided by the SFPUC is delivery of treated water through the Hetch Hetchy System.

Since 1989, the County's various sources of water have remained relatively constant as a percentage of total supply. In 2010, water supplied by SCVWD made up the largest share of total use at 38 percent of total water purchased or produced by the County's water purveyors. Groundwater comprised the second largest share at 35 percent of total water supplied. SFPUC supplies (from the Hetch-Hetchy system) represent the third largest share at 18 percent of total water use. Recycled water consisted of approximately four percent and other local surface water (non-SCVWD) was six percent of total water supplied. A breakdown of the various water sources by agency is shown in Figure 1-6.

A schematic representation of the Santa Clara County water providers and water system is shown in Figure 1-5. Figure 1-5 indicates supply sources by retailer in 2009, which has been selected as a representative year for water conservation comparison purposes.

Figure 1-5: Santa Clara County Water Supply System

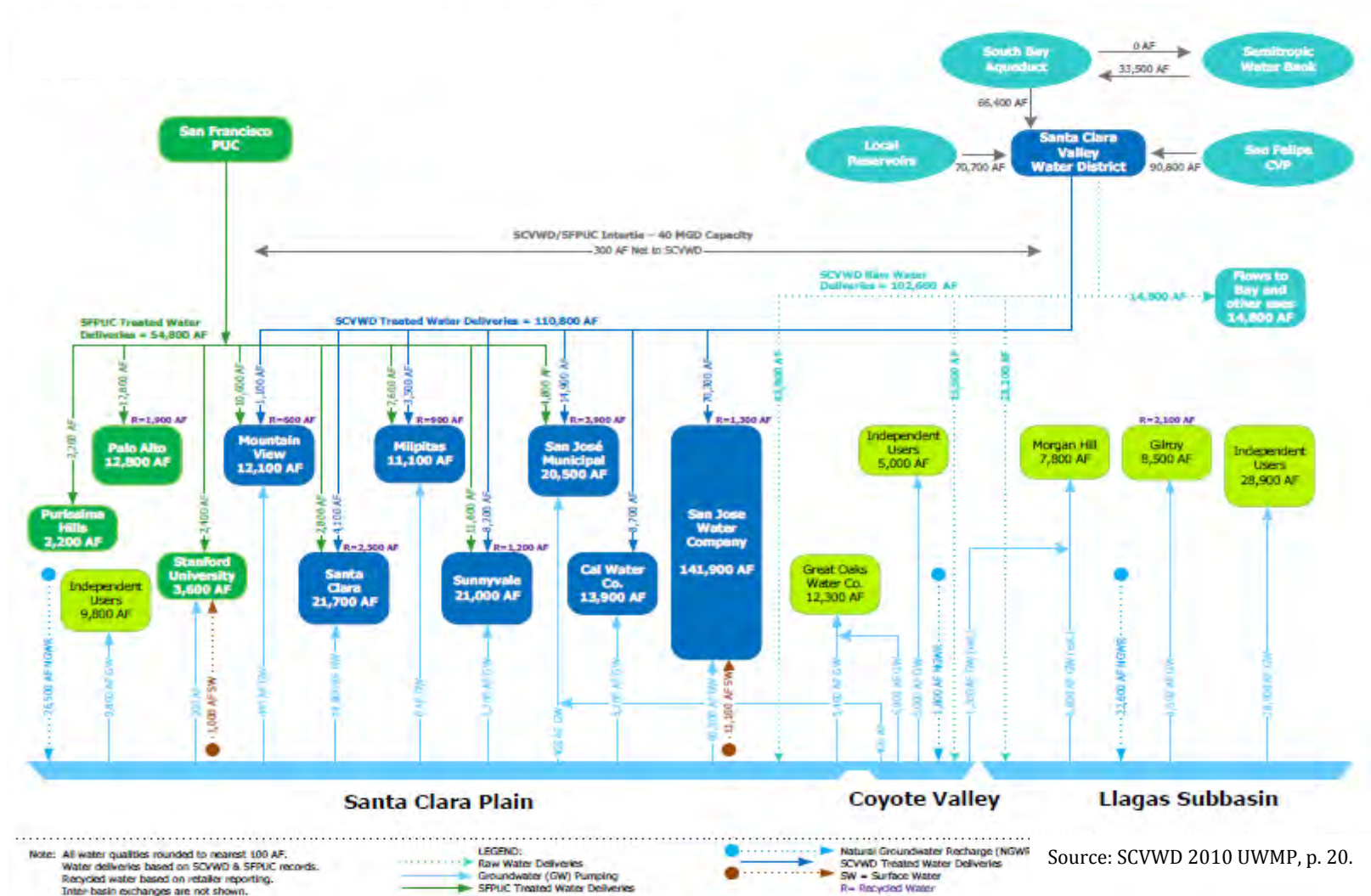


Figure 1-6: Water Sources by Purveyor (2010)

Agency	Water Source in 2010 (acre feet)												Total
	SFPUC	%	SCVWD	%	SJWC	%	GW	%	Surface Water Rights	%	Recycled Water	%	
Agencies Under LAFCO Jurisdiction													
Aldercroft Heights CWD	0	0%	0	0%	16	100%	0	0%	0	0%	0	0%	16
Purissima Hills WD	1,903	100%	0	0%	0	0%	0	0%	0	0%	0	0%	1,903
San Martin CWD	0	0%	0	0%	0	0%	114	100%	0	0%	0	0%	114
City of Gilroy	0	0%	0	0%	0	0%	6,622	90%	0	0%	700	10%	7,322
City of Milpitas	6,744	61%	3,484	32%	0	0%	0	0%	0	0%	807	7%	11,035
City of Morgan Hill	0	0%	0	0%	0	0%	7,333	100%	0	0%	0	0%	7,333
City of Mountain View	9,476	84%	1,007	9%	0	0%	476	4%	0	0%	389	3%	11,348
City of Palo Alto	12,263	94%	0	0%	0	0%	0	0%	0	0%	802	6%	13,065
San Jose Municipal Water	4,592	21%	13,692	61%	0	0%	668	3%	0	0%	3,339	15%	22,291
City of Santa Clara	2,454	11%	4,372	19%	0	0%	13,980	60%	0	0%	2,409	10%	23,215
City of Sunnyvale	8,982	42%	9,331	43%	0	0%	1,629	8%	0	0%	1,523	7%	21,465
Agencies Not Under LAFCO Jurisdiction													
San Jose Water Company	0	0%	64,783	49%	0	0%	51,107	38%	15,968	12%	1,208	1%	133,066
California Water Service Company	0	0%	8,252	71%	0	0%	3,396	29%	0	0%	0	0%	11,648
Great Oaks Water Company	0	0%	0	0%	0	0%	11,021	100%	0	0%	0	0%	11,021
West San Martin Water Works	0	0%	0	0%	0	0%	303	100%	0	0%	0	0%	303
Stanford University ¹	2,800	100%	0	0%	0	0%	0	0%	0	0%	0	0%	2,800
Countywide Total	49,214	18%	104,921	38%	16	0%	96,649	35%	15,968	6%	11,177	4%	277,944
Notes:													
1) Since the University chose to not participate in this water service review and update the informationfrom the previous service review, the number of connections and acre feet produced are from 2004.													

Surface water supplies provided through SCVWD and SFPUC, along with local supply availability, appear adequate to meet the County's needs. Federal and State contract water through the Central Valley Project and State Water Project are shorted based on inter-annual availability constraints, which are unpredictable. This is the primary limitation to the County's water supply. The ability to meet future water use demands will depend significantly on groundwater storage and expanded supplemental water supplies such as transfers, exchanges, in-lieu supplies from groundwater banking, and both recycled water and potential desalination.

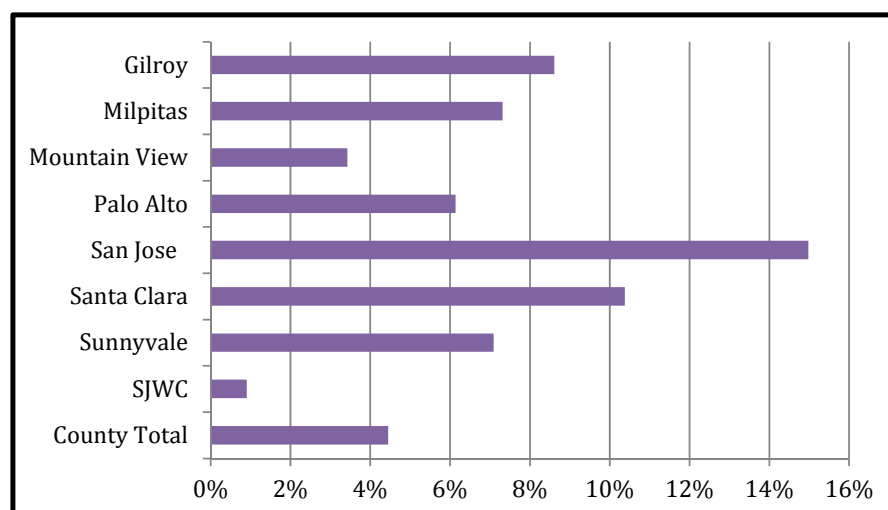
Other Water Sources

Agencies are searching for additional drought-resistant water sources and a means to enhance the use of existing sources, including desalination and recycled water.

The San Francisco Bay Area's five major water agencies—Contra Costa Water District, East Bay Municipal Utility District, San Francisco Public Utilities Commission, Zone 7 Water Agency, and Santa Clara Valley Water District—all collaborating on a desalination project to determine the feasibility of a regional desalination facility. The intent of the Bay Area Regional Desalination Project (BARDP) is to leverage existing pipelines and interties and to share a regional facility that minimizes costs and environmental impacts.

Presently, about four percent of the County's total water use consists of recycled water, limited primarily to landscaping and industrial uses. Recycled water is produced at four wastewater treatment plants in Santa Clara County. Wastewater from Gilroy and Morgan Hill is treated at the South County Regional Wastewater Authority facility in Gilroy. In northern Santa Clara County, recycled water is produced at the Palo Alto Regional Water Quality Control Plant, the San Jose/Santa Clara Water Pollution Control Plant (South Bay Water Recycling program) and the Sunnyvale Water Pollution Control Plant.

Of the 11 water retailers under LAFCO jurisdiction that are covered in this report, seven make use of recycled water. San Jose Water Company (SJWC) also makes use of recycled water in its service area. Figure 1-7 illustrates what portion of total water supply consists of recycled water. Use ranges from one percent in SJWC to 15 percent in the City of San Jose's water service area.

Figure 1-7: Portion of Total Water Supply Comprised of Recycled Water (2010)

It appears that there is room for expanded use of recycled water at the existing plants based on the percent of plants' flows that is used for recycled water, as shown in Figure 1-8. Constraints to use of recycled water are the cost of extending recycled water mains to additional water users and stringent regulations regarding treatment and uses.

Figure 1-8: Percentage of Treatment Plant Flow Used For Recycled Water (2010)

Recycled Water Provider	% of Plant Flow Used for Recycled Water
South County Regional Wastewater Authority	26%
South Bay Water Recycling	7%
Palo Alto Regional Water Quality Control Plant	10%
Sunnyvale Water Pollution Control Plant	10%

Recycled water use is expected to expand in the coming years. Water purveyors that are presently making use of recycled water resources plan to increase consumption by 121 percent through 2035. Additionally, Great Oaks Water Company is assessing the potential of initiating recycled water use.

In response to the expected increase in demand for this drought-proof and more cost efficient water source, there are plans for plant expansions and a new plant. The plans include:

- ❖ An overall expansion of the SCRWA treatment plant to accommodate future growth in Gilroy and Morgan Hill over the next 20 years.
- ❖ Rebuilding of the San Jose/Santa Clara Water Pollution Control Plant aging plant with new treatment technologies including upgrades to the treatment process, as

well as enhanced use of renewable energy sources, and habitat and open space areas.

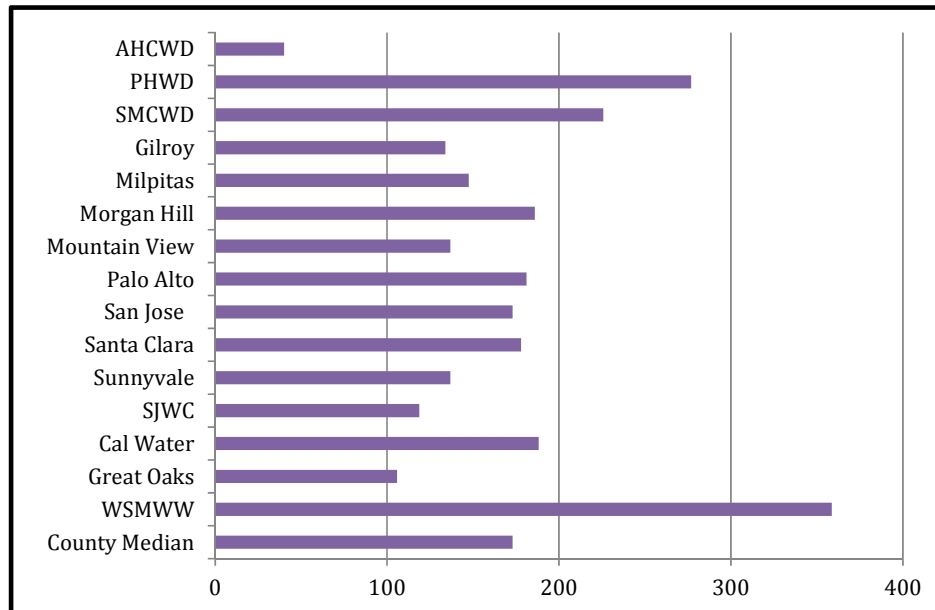
- ❖ SCVWD, in collaboration with the City of San Jose, is in the process of building an advanced water treatment facility (to be completed in early 2012), which will produce up to ten million gallons per day of recycled water.

DEMAND

This section provides an overview of water uses, a general discussion of factors affecting water demand, analysis of water demand indicators and conservation efforts, and projections of future needs for water.

Residential water demand differences relate in part to differences in outdoor water use between communities. Lot size is a significant factor affecting differences in per unit demand. Structure age is another factor expected to affect demand differences, as newer buildings tend to have modern, water-efficient plumbing fixtures. Urban water demand is primarily affected by population and economic growth and by water use efficiency. As the number of residents and jobs grows, the more showers are taken, toilets flushed and dishes washed. Not only does demographic and economic growth affect water demand, so too does the efficiency of water use.

Water usage varies significantly across providers and service areas, as shown in Figure 1-9. In 2010, the median water use among the Santa Clara purveyors covered in this report was 173 gallons per capita per day (gcpd). As shown in the figure, customers in Aldercroft Heights County Water District (AHCWD) use significantly less water on average (40 gcpd) than in the other service areas. This is in large part due to the high rates charged by AHCWD. Conversely, customers in Purissima Hills Water District (PHWD) and West San Martin Water Works (WSMWW) use significantly more water on average than in the other services areas. High water demand within PHWD is likely attributable to the size of the homes and landscaped area associated with the minimum one-acre parcels found within the District.

Figure 1-9: Potable Water Use in Gallons per Capita per Day (2010)

Conservation

Over time, water use levels change in response to changes in water prices, improvements in the efficiency of plumbing fixtures and conservation programs aimed at encouraging consumers to upgrade to efficient plumbing fixtures. These effects are interrelated. For example, water price increases can encourage consumers to reduce their water use directly (e.g., fewer showers) or prompt them to upgrade fixtures (e.g., water-efficient toilets). These impacts are readily identifiable in Santa Clara County where conservation efforts and campaigns combined with economic recession have led to lower water use, which has resulted in lower water sales revenues.

During the drought in 2007 to 2009, water agencies implemented mandatory water conservation efforts. Specifically, in March 2009, Santa Clara Valley Water District (SCVWD) adopted a resolution calling for a mandatory 15 percent water conservation. Users exceeded this requirement by achieving 17 percent water conservation. Although drought conditions are no longer a concern, SCVWD continued voluntary water conservation efforts with a target of 10 percent in FY 10-11. Agencies indicated plans to continue conservation efforts in FY 11-12.

Over 200 California water providers are signatories to the California Urban Water Conservation Council (CUWCC) agreement, through which service providers pledge to develop and implement 14 conservation “best management practices.” Within Santa Clara County, City of Mountain View, City of San Jose, City of Palo Alto, Santa Clara Valley Water District, Purissima Hills Water District, San Jose Water Company, California Water Service Company, Great Oaks Water Company are the only signatories among the water providers.

Projected Demand and Water Supply Capacity

Each agency's projected water demand through 2035 and the capacity to meet that demand with existing and anticipated water supplies was analyzed based on agency-reported projections in the UWMPs. Overall, the water purveyors appear to have sufficient water supply to meet demand during normal years through 2035, and any shortfall in water is anticipated to be made up by enhanced groundwater use. Potential water shortages during single and multiple year drought scenarios were identified for the Cities of Milpitas, Santa Clara, and Mountain View.

By the year 2020, Milpitas may experience water supply shortfalls in drought years, with up to a 2,400 acre foot per year shortfall in the third year of consecutive drought by 2035. Milpitas plans to rely on groundwater pumping from its two municipal wells, increased use of recycled water, and more stringent water conservation programs to weather any drought-related shortfalls.

The City of Santa Clara is considered a temporary and interruptible customer of SFPUC with assurance of supply only through 2018. If the City's total projected supplies include SFPUC supply beyond 2018, the City will be able to meet its anticipated demands to 2035. Without SFPUC supply, there are projected shortfalls by 2020 under normal, single dry, and multiple dry-year sequences with shortfalls of up to 8,000 AF by 2035. The City has conservatively included this scenario in its UWMP, and plans to meet future demand growth by pumping additional groundwater, relying on more recycled water and increased conservation. Similarly, the San Jose Municipal Water System is considered a temporary and interruptible customer of SFPUC with assurance of supply only through 2018; however, the City assumes in its UWMP that it will continue to receive the same share of water from SFPUC through 2035, and consequently no shortages were identified.

The City of Mountain View projects minor supply deficits occurring as early as 2015 during multiple dry year periods, with a supply deficit of up to 2,350 acre feet (18 percent shortfall) during the fifth year of consecutive drought by 2025. These projections assume no change in demand during drought years. The City would be able to increase the amount of groundwater pumped to meet any supply deficit.

SCVWD appears to generally have sufficient water supply during normal supply scenarios; however, there are projected deficits during a single and multiple dry year event as early as 2015, which would require the District to capitalize on its groundwater reserves and surface carryover supplies. A multiple dry-year event would also require enhanced short-term conservation efforts.

For the most part, surface water supplies provided through SCVWD and SFPUC, conditioned by both long-term Central Valley Project/State Water Project allocation sensitivity and the individual supply guarantee limitations, along with local supply availability, are adequate to meet current and future demand projections within the County. Groundwater is a notable "equalizer" in the County with each of the three sub-basins assumed capable of providing significant sustained yield quantities. The biggest

uncertainty is in the assumed yield estimates for source area derived (Sierra Nevada) surface water supplies in the long-term for both SFPUC and SCVWD.

FACILITY NEEDS

Each of the providers identified infrastructure needs and deficiencies related to water facilities. The primary need identified among the city water providers was the continued replacement of aging mains that are prone to leaks and breaks. Additionally, several agencies identified necessary improvements to facilities to enhance seismic stability and safety. Facility needs for each of the agencies are outlined in Figure 1-10. For further information and background on an agency's respective needs refer to the provider's individual chapter in this document.

Figure 1-10: Agency Infrastructure Needs

Agency	Infrastructure Needs
Santa Clara Valley Water District	<ol style="list-style-type: none"> 1. Review and corrective measures to the District's dams to enhance seismic stability 2. A means to ensure water quality from the San Luis Reservoir during low levels 3. Repairs to clearwells at the Penitencia water treatment plant 4. Enhanced flood protection along Alamias, Jones, and West Branch Llagas Creeks 5. Remediation of six impaired water bodies (Alamitos and Coyote Creeks, Calero Reservoir, and Guadalupe Creek, Reservoir and River)
Aldercroft Heights County Water District	<ol style="list-style-type: none"> 1. Replacement of a storage tank to enhance seismic stability
Purissima Hills Water District	<ol style="list-style-type: none"> 1. Upgrade and replacement of aging undersized mains that are prone to breaks and leaks
San Martin County Water District	<ol style="list-style-type: none"> 1. Installation of a back-up well with generator for emergency purposes
Pacheco Pass Water District	<ol style="list-style-type: none"> 1. Replacement of the spillway at the North Fork Dam 2. Removal of vegetation at the upstream slope and spillway exit channel
City of Gilroy	<ol style="list-style-type: none"> 1. Replacement of water meters 2. Reconstruction of the First Street main 3. Repairs and painting of water storage tanks
City of Milpitas	<ol style="list-style-type: none"> 1. Upgrades to the Curtis Well pump station 2. Extension of Abel Street/Carlos Street water line 3. Seismic improvements to the backbone water system
City of Morgan Hill	<ol style="list-style-type: none"> 1. Construction of an additional well to provide adequate source capacity through 2035 2. Replacement of the Main Avenue main 3. Rehabilitation of booster pumps and wells 4. Re-coating of water tank
City of Mountain View	<ol style="list-style-type: none"> 1. Replacement of aging water lines 2. Replacing current water meters with remote-read capable meters
City of Palo Alto	<ol style="list-style-type: none"> 1. Replacement of aging water lines 2. Structural reinforcement for the Monte Bello, Corte Madera, Park, Boronda, and Dahl reservoirs 3. Emergency water supply and storage enhancements - rehabilitation of five of the City's existing stand-by wells, construction of three new wells, construction of a 2.5-million gallon storage reservoir, augmentation of the existing Mayfield Pump Station
San Jose Municipal Water	<ol style="list-style-type: none"> 1. Main line extension to Nortech Parkway East to eliminate 'dead end' lines 2. Water main replacement along Bon Bon Drive 3. Ongoing reservoir seismic piping
City of Santa Clara	<ol style="list-style-type: none"> 1. Distribution system replacement and restoration 2. Seismic retrofit for storage tanks 3. Rehabilitation of wells and pumps
City of Sunnyvale	<ol style="list-style-type: none"> 1. Refurbishing, cleaning, interior coating, and exterior painting of water tanks 2. Replacement of water lines where soil conditions are most corrosive 3. Replacement of the SCADA system

Emergency Preparedness

Urban water suppliers are expected to address catastrophic disruptions of water supplies with plans reviewing the vulnerability of source and delivery and distribution systems to events such as regional power outages and system failures.

In 2003, SCVWD initiated the Water Utility Infrastructure Reliability Project (IRP) to determine the current reliability of its water supply infrastructure (pipes, pump stations, treatment plants). The project measured the baseline performance of critical district facilities in emergency events and identified system vulnerabilities. The study concluded that the District's water supply system could suffer up to a 60-day outage if a major event, such as a 7.9 magnitude earthquake on the San Andreas Fault, were to occur. Less severe hazards, such as other earthquakes, flooding and regional power outages had less of an impact on the District, with outage times ranging from one to 45 days.¹

In light of the potential for a major seismic event or other emergency outage, emergency preparedness and ability to weather any water supply interruption is a primary concern for the providers. Depending on the type and length of the interruption, the water retailers would rely on stored water and enhanced groundwater pumping, and when available, make use of transfers through interties with other providers, to meet demand during an outage.

A majority of the providers maintain interties with other providers for emergency events, with the exception of Aldercroft Heights CWD and the Cities of Gilroy and Morgan Hill.

In the event of an emergency that limited or stopped a provider's supply of water, the system would rely on stored water in the short-term. Figure 1-11 shows the number of days of water storage that each provider maintains given maximum day flows. San Martin County Water District maintains minimal water storage that may be used during an outage, and instead intends to rely on its intertie with West San Martin Water Works. As Aldercroft Heights CWD does not have any neighboring water providers and consequently no interties for emergency purposes, the District maintains substantial (14 days) water reserves compared to the other agencies.

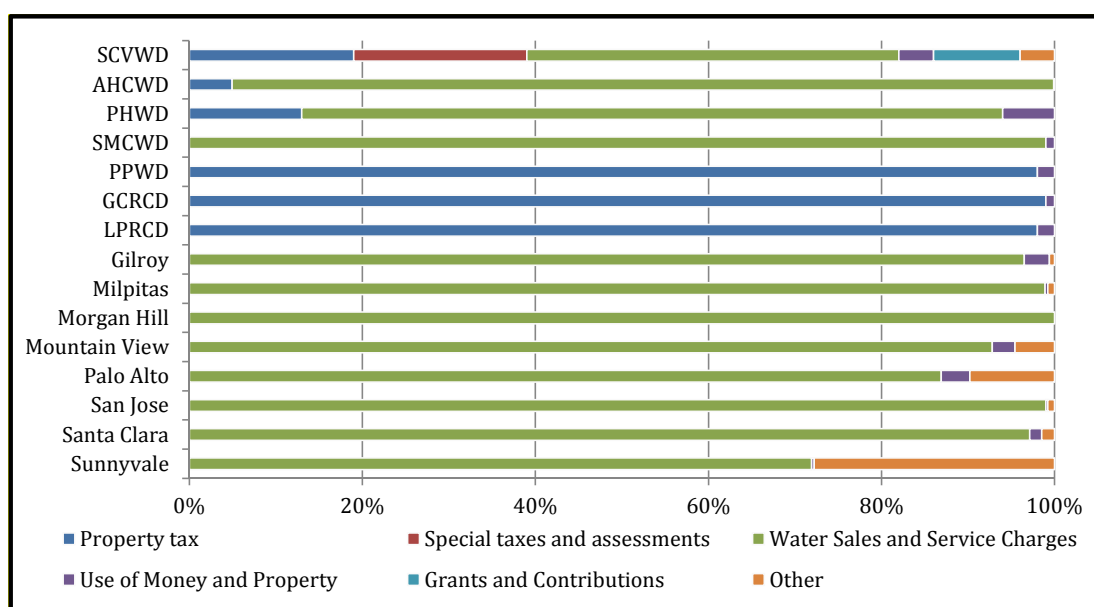
¹ SCVWD, Draft UWMP, 2011, p. 9-7.

Figure 1-11: Days of Water Storage During Maximum Day Demand

Agency	Days of Stored Water During Max Day Demand
Aldercroft Heights County Water District	14
Purissima Hills Water District	2
San Martin County Water District	0.04
City of Gilroy	1
City of Milpitas	1
City of Morgan Hill	1.25
City of Mountain View	0.9
City of Palo Alto	0.13
City of San Jose - N. San Jose Alviso	1
City of San Jose - Evergreen	1.25
City of San Jose - Edenvale	3
City of San Jose - Coyote Valley	3.3
City of Santa Clara	1
City of Sunnyvale	1

FINANCING

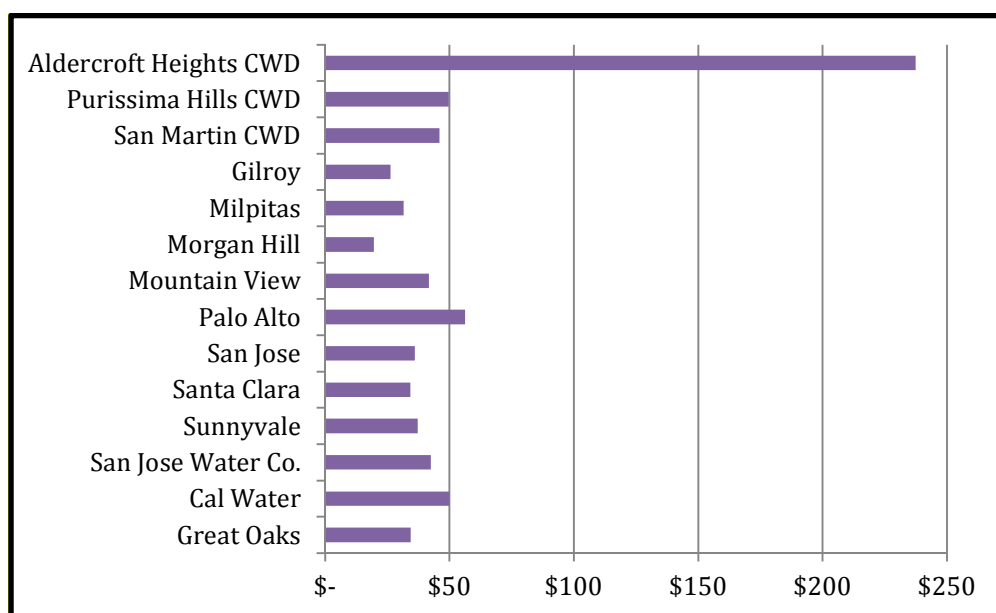
Water rates and connection fees and property tax revenues are the primary financing sources for water enterprises in the Service Review area. The water service providers rely to differing degrees on these and other sources for revenues. The various financing sources and the degree to which the agencies rely on them are shown in Figure 1-12.

Figure 1-12: Agency Financing Sources

As shown in Figure 1-12, the water purveyors largely depend on water sales revenue to operate the utility. Compared with other municipal services, there are relatively few financing constraints for water enterprises. Generally, agencies may establish service charges on a cost-of-service basis and are not required to obtain voter approval for rate increases or restructuring. The boards of each of the public sector water providers are responsible for establishing service charges. Service charges are restricted to the amount needed to recover the costs of providing water service.

With the exception of Aldercroft Heights CWD, Purissima Hills WD and Gilroy, each of the agencies reviewed here updated their rates in 2011. Rate increases among the retailers ranged from 5.9 percent by San Jose Municipal Water System to 21 percent by Palo Alto, with a median increase of 18 percent. Figure 1-13 shows the average monthly water rates for each retailer for a single family connection assuming an average monthly usage of 7,600 gallons. Based on the average use assumed, Aldercroft Heights CWD charges the highest rates among the purveyors; however, it should be noted that customers within the AHCWD service area use significantly less water on average than in the other service areas, and would likely not use the full assumed amount. The median monthly rate among the providers is \$39.50.

Figure 1-13: Monthly Water Rates for a Single Family Connection (FY 11-12)

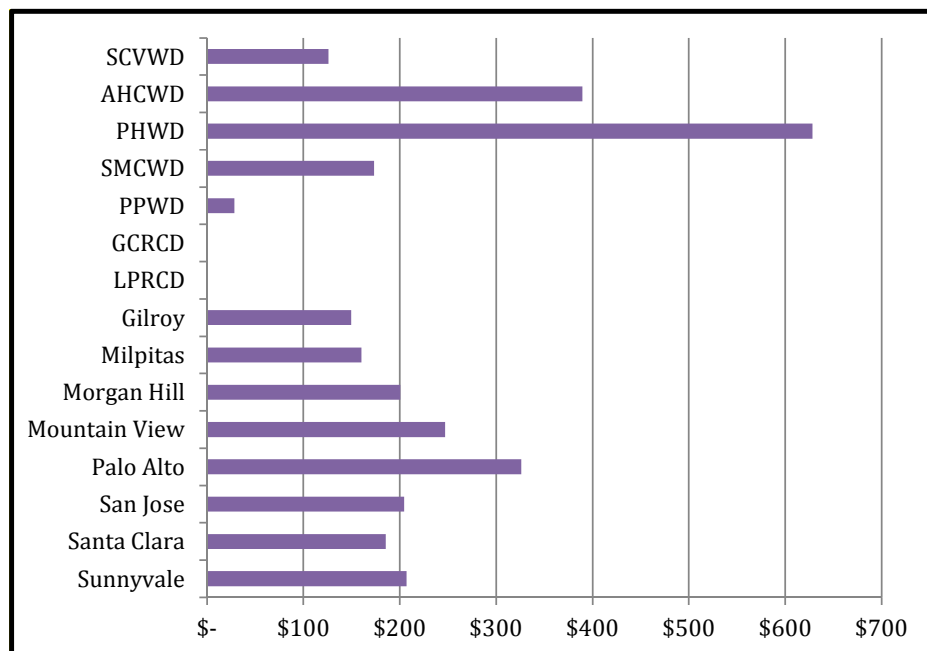


The retailer rates were greatly influenced by recent rate increases by SCVWD and SFPUC. SFPUC raised rates by 38 percent for FY 11-12, and SFPUC anticipates raising rates an average of 10 percent annually over the next 10 years. These increases are the result of the infrastructure projects undertaken by SFPUC to upgrade the regional water distribution system at a cost of \$4.6 billion. The degree to which SCVWD increased rates varied depending on zone of use, contract type, and agricultural or non-agricultural uses.

SCVWD rate increases ranged up to nine percent for non-agricultural purposes, as well as non-contract treated water.

Water service costs vary between providers, due to differences in services provided, water source, treatment methods, service areas, infrastructure age, maintenance efforts and capital financing approaches. The providers vary substantially in size of operations. Comparisons may be drawn by focusing on costs per capita served, as shown in Figure 1-14. Operating expenditures ranged from \$0.52 and \$0.81 per capita in Guadalupe-Coyote RCD and Loma Prieta RCD to \$628 per capita in Purissima Hills WD. The median among the water service providers (excluding the two RCDs) was \$201 per capita.

Figure 1-14: Operating Expenditures per Capita (FY 09-10)

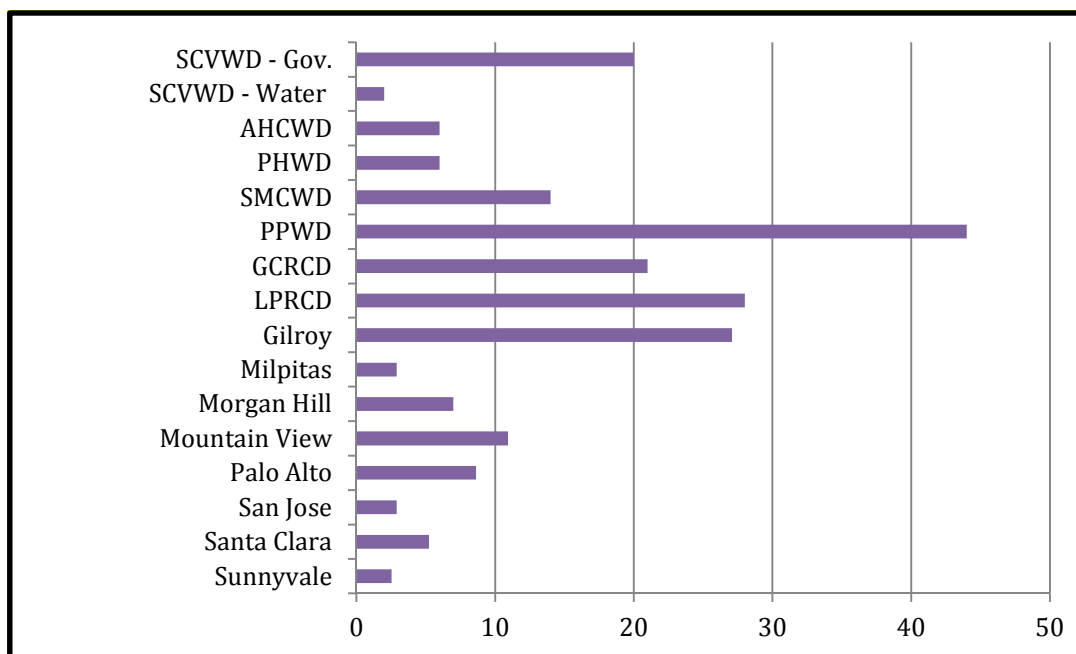


Each of the providers self-reported on the adequacy of the existing financing level to provide services. In general, those agencies that rely primarily on water rates and other service charges to finance services reported that financing levels were adequate, while those that rely on only property taxes to finance all services (Pacheco Pass WD, Guadalupe-Coyote RCD and Loma Prieta RCD) reported that financing levels are inadequate. All agencies reported a decline in revenues to some degree, which has led to expenditures cuts and efforts at improved efficiencies.

Water providers rely on their financial reserves to weather recessions, for rate stabilization purposes, to cover unexpected capital projects and as a form of savings to accumulate what is needed to make needed capital repairs. Unrestricted financial reserves reflect savings that can be used for any water-related purpose, and are the most flexible funds and most useful for sustaining service levels during tough economic times or for unanticipated capital projects. Unrestricted reserves in terms of months of operating

expenditures are shown in Figure 1-15. Interestingly, those agencies that reported an inadequate level of financing tend to have the highest level of reserves.

Figure 1-15: Months of Unrestricted Reserves in Operating Expenditures (FY 09-10)



WATER QUALITY

Generally, the agencies reviewed provide high quality water with few violations or exceedances of water contaminant standards. The southern portion of the County remains affected by perchlorate contamination and nitrates in the groundwater; however, perchlorate levels have declined in recent years and the agencies reviewed have remained within required limits for these contaminants. Of the water providers covered here, two have had health or monitoring violations in the last ten years—the Cities of Palo Alto and San Jose. Both are taking steps to prevent future such violations in the future.

The Santa Clara Valley Water District, as the wholesale water supplier for the largest portion of the County, does not add fluoride to the drinking water it delivers. However, some local water retailers in Santa Clara County do add fluoride to the water they provide. To date, decisions on whether to fluoridate water received from SCVWD in a given area have been made by the water retailers. Mountain View adds fluoride to water district-treated water. San Jose Municipal Water System does the same in its service area in the Evergreen area of San Jose. Areas receiving water from the SFPUC's Hetch Hetchy system (Purissima Hills Water District, Palo Alto, Stanford University, and parts of Milpitas, Mountain View, North San Jose - Alviso, Santa Clara and Sunnyvale), also provide fluoridated water.

Assembly Bill (AB) 733 authorizes DPH to require large water systems to fluoridate their public water supply. It also directs DPH to seek funding for fluoridation. The

California Fluoridation Regulations adopted by the DPH apply to large systems with at least 10,000 service connections (SCVWD does not meet this criterion since they have only 27 direct service connections). The regulations require that 1) large systems with existing fluoridation practices continue fluoridating under more stringent regulatory requirements and 2) large non-fluoridated systems start fluoridating when funding is made available.

SERVICE LEVELS

During the course of this service review, several deficiencies in accountability and transparency were identified.

Of the agencies reviewed, Aldercroft Heights CWD, San Martin CWD, and Pacheco Pass WD do not maintain websites where documents and information are publicly accessible. It is a recommended practice that a public agency maintain a website where all agency information is readily available to constituents.

Three special districts have failed to submit regular audited financial statements to the County. County water districts are required to complete annual audits per the district enabling act.² Additionally, all special districts are required to submit annual audits to the County within 12 months of the completion of the fiscal year, unless the Board of Supervisors has approved a biennial or five-year schedule.³ In the case of AHCWD and SMCWD, the Districts must submit audits annually. AHCWD has failed to submit its audit to the County for FY 09-10 within the required 12 month period. SMCWD has failed to submit audited statements for the last five fiscal years. In the case of Pacheco Pass WD, the District is required to submit an audited statement every five years; however, PPWD failed to submit a report in FY 09-10 when it was required.

Of particular concern is that San Martin CWD has been extending services to connections outside of its boundaries and sphere of influence without LAFCO approval and is presently illegally serving seven connections. SMCWD was informed by LAFCO on several occasions in 1999, 2001, 2005, and 2007, and most recently, during the course of this service review that they must seek LAFCO approval prior to extending services. SMCWD appears to lack accountability and transparency to the public and regulatory agencies. Specifically, those customers that are served outside of the District are considered disenfranchised as they cannot hold office, cannot effectively influence rates, or vote in a district election. The District should not allow any future connections outside its bounds without first seeking LAFCO approval and should work with LAFCO to streamline the annexation of the current extraterritorial connections.

² California Water Code §30540.

³ Government Code §26909.

GOVERNANCE ALTERNATIVES

Several governance options were identified over the course of this study, those considered most feasible in the short-term include:

- ❖ Reorganization of Pacheco Pass WD with SCVWD and San Benito CWD
- ❖ Annexation of extraterritorial service areas by Aldercroft Heights CWD, San Martin CWD, and the City of Morgan Hill