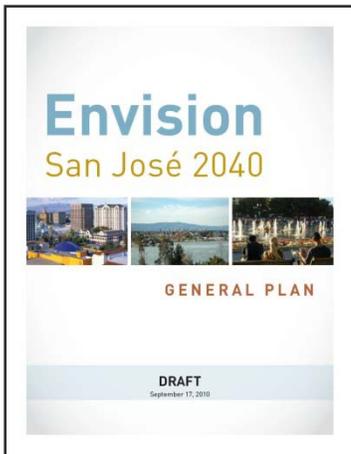


# Envision San José 2040 General Plan



The Envision San José 2040 General Plan (Plan) Update will guide the physical development of the City to provide a high quality of life for residents, those who work and visit San Jose.

There are seven elements that contribute to the Vision, including: innovative economy, environmental leadership, interconnected city, vibrant arts and culture, quality education and services, healthy neighborhoods, and diversity and social equity.

The Plan encompasses the City’s Green Vision and establishes specific measurement standards to track the City’s progress.

## Advance San Jose’s Environmental Leadership Role

- Partner with Water District, State and National Agencies and local suppliers
- Develop large scale water recycling program
- Promote development of clean technology industries



## Water Use and Conservation Strategy

The streams and other bodies of water are important environmental features for the City. Equally important is the quality of the water carried or contained by these bodies of water and the preservation of the riparian lands or ecosystems that are an integral part of these features.

## Measurable Sustainability

- Promote Green Building technology
- Manage water supply through partnership, sustainable practices and education
- Double City’s annual water conservation savings
- Achieve half of District’s goal for the County annually
- Reduce residential per capita water consumption by 25% by 2040
- Achieve 50 Million gallons per day of water conservation savings
- Recycle or reuse 100% of the City’s wastewater supply
- Monitor General Plan implementation



Continued on back

## Environmental Resources

- Ensure conformance to Habitat Conservation Plan
- Ensure consistent with City's Riparian Corridor Policy Study
- Ensure compliance with the City's Policies (6-26 and 8-14)
- Encourage storm water reuse



## Environmental Considerations and Hazards

- Develop flood protection facilities
- Develop and maintain flood protection retention facilities
- Determine appropriate adaptations to sea level rise
- Encourage the preservation of urban creeks and rivers

## Infrastructure

- Develop and maintain Storm Drainage Infrastructure Master Plan
- Develop a sewer capacity improvement program
- Expand the City's infrastructure for the delivery of non-potable or recycled water
- Encourage the use of flood protection guidelines



### Task Force Members

Sam Liccardo, Co-Chair	Karl Lee
Shirley Lewis, Co-Chair	Leslee Hamilton
David Pandori, Vice Chair	Linda LeZotte
Alofa Talivaa	Lisa Jensen
Brian Darrow	Matt Kamkar
Dave Fadness	Michael Van Every
Charles Lauer	Michele Beasley
Dick Santos	Nancy Lanni
Enrique Fernandez	Neil Struthers
Erik Schoennauer	Pastor Oscar Dace
Frank Jesse	Pat Dando
Gary Chronert	Patricia Sausedo
Harvey Darnell	Pierluigi Oliverio
Jim Zito	Sam Ho
Jackie Adams	Shiloh Ballard
Judy Chirco	Teresa Alvarado
Judy Stabile	Karl Lee

### Plan Schedule

Sept. 2010:	Released Draft General Plan document for public review and comment
Dec. 2010:	Circulate draft Environmental Impact Report for public review and comment
June 2011:	City Council consideration of General Plan

# FACT SHEET

## Board Policies

The Santa Clara Valley Water District is the primary water resources agency for Santa Clara County. We are committed to providing critical services with efficiency, accountability, responsiveness and maximum value.

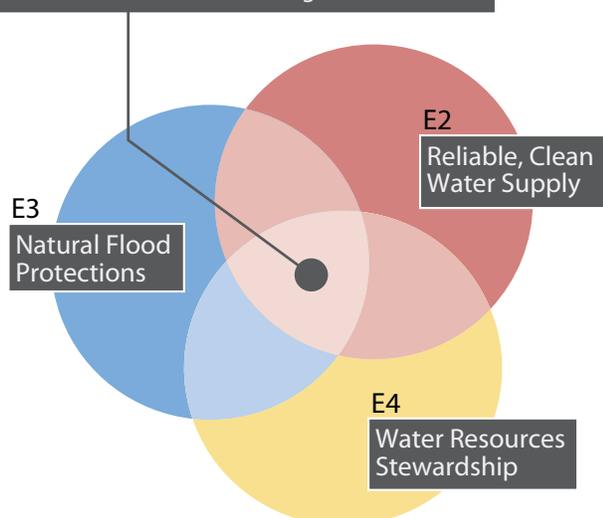
The policies of the Santa Clara Valley Water District Board of Directors define the water district's mission, and establish the principles and standards to guide the organization in achieving stated Board goals and objectives.

The Board's policies also define organizational delegation of authority, describe the boundaries within which all executive activity and decisions must take place, and establish the means and methods for the Board to gauge and monitor organizational performance.

E1

### Mission

A healthy, safe and enhanced quality of living in the Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner for current future generations.



## Components of the board governance policies

The Board of Directors of the Santa Clara Valley Water District has adopted the Board Governance Policies and is composed of the following:

- **Governance Process (GP)** - how the Board conducts its business
- **Board-BAO Linkage (BL)** - Board's delegation to its direct reports the Board Appointed Officers (BAOs: Chief Executive Officer, District Counsel, Clerk of the Board and District Auditor)
- **Ends** - These policies are developed systematically and provide the goals and objectives to instruct the BAOs to achieve certain results for the community.
- **Executive Limitations (EL)** - boundaries set by the Board stating what the BAOs cannot do to accomplish the Board's Ends
- **CEO/BAO Interpretations** - This defines the strategies for implementing the Board's policies and its outcome measures.

## Stakeholder input

- The Board solicits input from a diversity of stakeholders including its (9) Advisory Committees comprised of community leaders, elected officials and specialists for policy revision recommendations.
- Annually the Board conducts a comprehensive review of its policies, held in a public work study session for transparency and to hear input from the public.

## Annual policy review and update

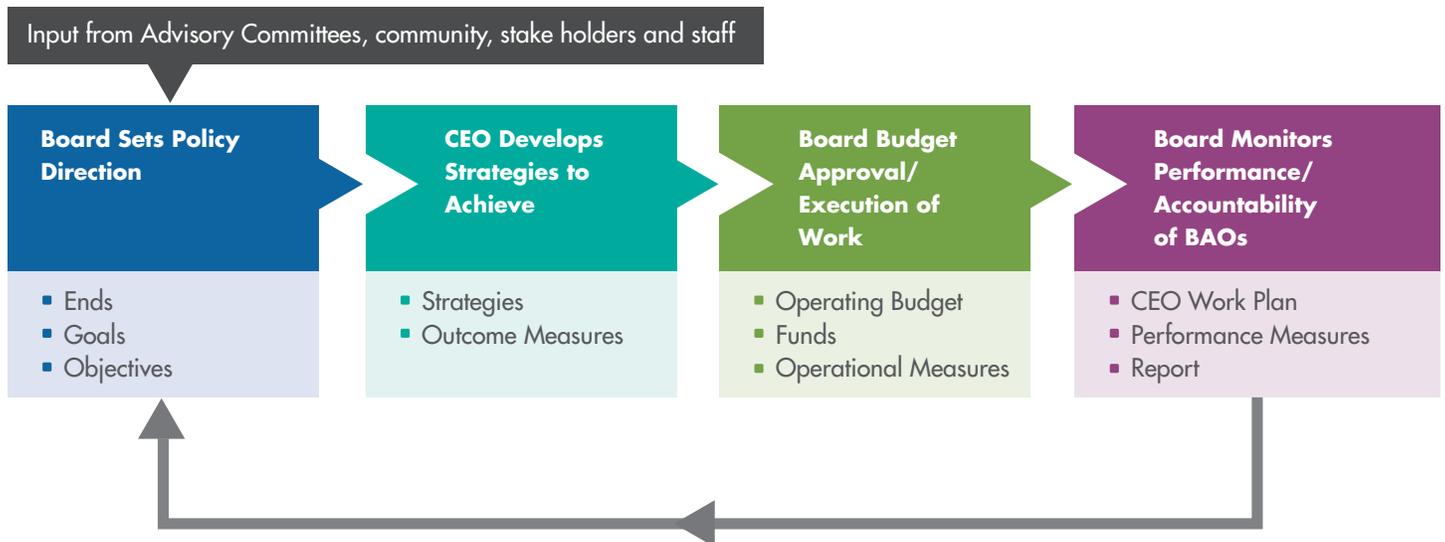
The Board annually reviews its policies during work study sessions to ensure the policies accurately reflect the Board's values and direction, and revises and/or creates new policies as needed.

### Policy Review Cycle



## Performance monitoring and accountability

The Board directs and monitors the performance to the Policies through an annual process.



Policies are online at [www.valleywater.org](http://www.valleywater.org).

## Contact us

If you have questions, contact:

**Mary Ann Ruiz** at **(408) 265-2607, ext. 2633,**  
**or [mruiz@valleywater.org](mailto:mruiz@valleywater.org).**

Santa Clara Valley Water District  
 5750 Almaden Expressway  
 San Jose, CA 95118  
 (408) 265-2600

## Fast Facts

- 30 million+ = number of Californians who depend on the Bay-Delta watershed for all or part of their drinking water, including seven of nine Bay Area counties.
- 40% = Percentage of Santa Clara County's water supply conveyed through the Delta.
- 66% = Probability of major earthquake, Delta levee failure and water supply disruption in the next 50 years.
- 20 feet = Depth below sea level of central Delta "islands."
- 9% = Percentage of 1,100 miles of Delta levees that meet today's flood control standards.
- 47% = Percentage of California's water runoff that flows through the Delta watershed.
- 15% = Percentage of natural flows into the Delta watershed that is exported by CVP and SWP.
- 158 = Number of Delta flood events since 1900.
- \$50 million+ = Cost to repair 2004 Jones Tract levee breach that occurred on a calm, summer day.



Images from the Delta

Where does our water come from?

# The Delta

The Delta is where California's two longest rivers, the Sacramento and San Joaquin, meet and flow into San Francisco Bay to create the West Coast's largest estuary. The Sacramento and San Joaquin rivers receive snowmelt and rain runoff from more than 40 percent of California's land area, including the Sierra Nevada range in northern and eastern California.

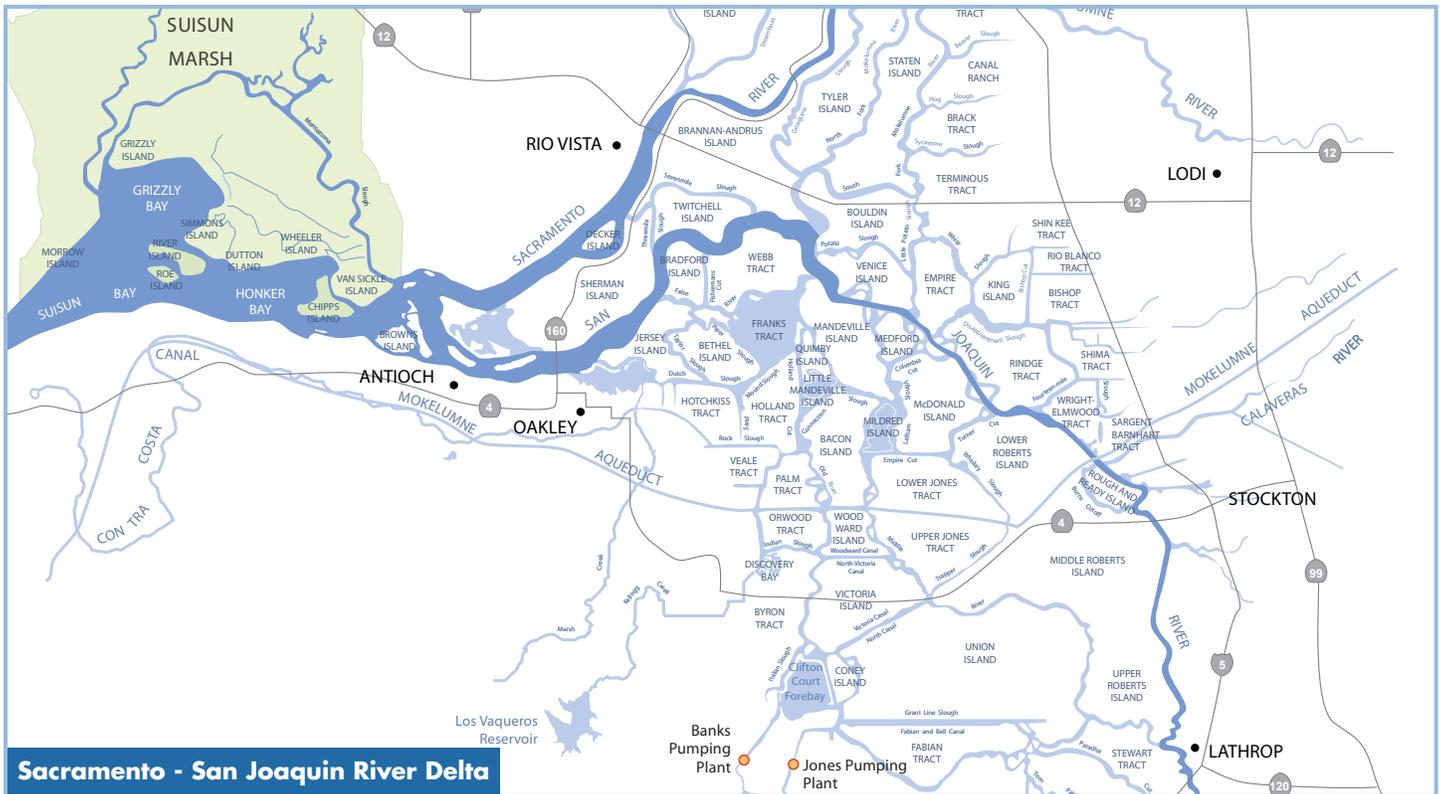
A tremendously important ecosystem, the Delta supports more than 700 plant and animal species and is a major transit point along the Pacific Flyway, a key breeding area for numerous waterfowl and a migration route for salmon, steelhead and sturgeon. It is also a renowned recreational playground, a productive farming region and home to more than a half million people. Its more than 1,000 miles of levees protect vital Bay Area and state infrastructures, including gas and power lines, pipelines, highways and railroads.

The Delta is the hub of California's major water systems, the State Water Project (SWP) and the federal Central Valley Project (CVP) supply drinking water to two thirds of the state's population and irrigate millions of acres of the nation's most productive agricultural lands. Santa Clara County relies on these two water projects for half of its water supplies. Consequently, threats to the Delta ecosystem and these water projects pose problems not only to Southern California or farmers, but to Silicon Valley too.

Invasive and non-native species, water pollution and wastewater discharges, unscreened water diversions, and changes in natural

continued on back...

# The Delta



flow patterns and hydrology threaten the health of the Delta's ecosystem and have contributed to the decline of several fish populations. And regulatory constraints to protect these threatened fish species have reduced the reliability of the county's SWP and CVP water supplies.

Catastrophic levee failure is also a growing threat. The Public Policy Institute of California, a nonpartisan think-tank, estimates there is a 66 percent chance of major levee failure in the Delta within the next 50 years. A major levee failure could completely shut down the SWP and CVP Delta pumps for six to 18 months, depending on when and where it occurred, devastating Santa Clara County and the California economy.

Climate change scenarios predict even greater threats in the future. Earlier snow melts will put additional strain on the Delta levees. Rising sea level also threatens levee stability and will allow more salty, ocean water to intrude into the Delta. This increased salinity may affect fish populations and will increase the cost to treat the water for use in Santa Clara County and elsewhere.

To address these risks, the water district is actively working with others on the Bay Delta Conservation Plan

(BDCP), a promising effort aimed at the dual goals of improving Delta ecosystem health and water supply reliability. BDCP participants include the Department of Water Resources, the U.S. Bureau of Reclamation, state and federal fishery agencies, SWP and CVP contractors, and environmental organizations. The conservation strategy will include measures to restore habitat, reduce stressors such as invasive species and contaminants and improve water conveyance through the Delta. The BDCP will also secure long-term Endangered Species Act permits for SWP and CVP operations.

The fisheries conservation community generally agrees that a properly operated, new isolated conveyance facility will substantially benefit certain listed species compared to the existing system. An isolated conveyance facility would divert water through five new intakes along the Sacramento River before it enters the Delta and convey it directly to the SWP and CVP pumping plants in the south Delta. At the same time, a new isolated facility equipped with state-of-the-art fish screens would help achieve a more reliable water supply for Santa Clara County.

# The Water Conservation Act of 2009 (SBX7-7)



## Background

The 2009 legislation requires a statewide 20% reduction in urban per capita water use by 2020. Urban water retail suppliers must determine their baseline water use and set reduction targets according to specified requirements. The Department of Water Resources (DWR), in consultation with the California Urban Water Conservation Council as well as other experts from throughout the state, has developed standardized technical methodologies and criteria for calculating per capita water use, baseline use, population and other analytical metrics. DWR has also convened a representative Commercial, Industrial and Institutional (CII) Task Force to develop standard metrics and best management practices for CII water use.



## How will it affect California water utilities?

Urban retail water suppliers (3,000 service connections or sales of 3,000 acre feet per year) must determine their base per capita water use and develop water use reduction targets using one of four specified methods:

- Option 1: 80% of baseline use
- Option 2: Sum of specified performance standards
- Option 3: 95% of DWR Hydrologic Region target from draft 20x2020 Plan
- Option 4: A flexible alternative designed to adjust to local circumstances (still being developed)

Urban retail water suppliers have the option to monitor and report compliance on an individual or regional basis. Reporting is done through agency's Urban Water Management Plans and must include: baseline water use, reduction targets, and compliance analyses. If an agency is not in compliance they will not be eligible for state water grants and /or loan eligibility.

Agricultural water suppliers (10,000 or more irrigated acres) must implement specified efficient water management practices (including volumetric measurement and pricing), and must prepare, adopt and periodically revise agricultural water management plans.



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# FACT SHEET

## City-District Recycled Water Agreements

### Two landmark agreements

In early 2010, the Santa Clara Valley Water District and the City of San José entered into two agreements to build a new advanced recycled water treatment (AWT) facility. In addition, the agreements strengthen and integrate the management of recycled water between the two agencies.

Forging these two agreements opened a new era in the District-City recycled water relationship.

### Ground Lease Agreement

The Ground Lease Agreement provides a 40-year lease for the five-acre parcel needed for the new advanced recycled water treatment facility, which will be owned and operated by the Santa Clara Valley Water District. The parcel is located at the San José/Santa Clara Water Pollution Control Plant lands. The agreement also allows the use of other plant property to connect the new facility to the plant.

### Integration Agreement

The second agreement integrates the recycled water programs of the City of San José and the District. The "Recycled Water Facilities and Programs Integration Agreement," promotes cooperation between the two agencies related to the management and operation of their respective recycled water facilities and programs over the terms of the agreement.

### Key terms of the agreements

- The initial cost to the City is not to exceed \$11 million.
- The ongoing net cost to the City is not to exceed \$2 million per year.
- The District pays \$1 million per year in 2010 and 2011.
- After the new facility is operational, costs for



Artist rendering of new recycled water facility.

Inset: South Bay Water Recycling pumps



the new system and the existing system will be shared according to a formula laid out in the agreement.

- A joint Recycled Water Policy Advisory Committee (PAC) will make recommendations to the City Council and District Board on matters related to the production and use of recycled water, expansion of the non-potable system and advanced treatment facilities, changes in terms and conditions on existing wholesale and retail recycled water agreements, including new agreements, and on costs and budgets for recycled water.
- A City-District Technical Working Group will

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provide staff support to the PAC and develop the operations and maintenance manual for the AWT facility, identify areas of appropriate expansion, and other items.

- The City will not lease to third parties certain land around the AWT facility.
- The District will determine by July 1, 2020 plans for development to construct further permanent improvements or expansion to the AWT facility.
- Prior to July 1, 2020, the export of secondary treated wastewater or recycled water is allowed only by agreement by both the City Council and the District Board.

## Recycled water facts

- Currently, recycled water meets almost 5 percent of Santa Clara County's water demands.
- The South Bay Water Recycling Program produces about 10,000 acre-feet per year of recycled water for irrigation and industrial uses for more than 600 customers.

## Facts about the AWT

- The new facility will use three technologies to produce highly purified water: microfiltration, reverse osmosis and ultraviolet disinfection.
- The AWT will produce up to 8 million gallons per day.
- The water produced by the AWT will be blended with existing recycled water flows, enhancing its quality, and potentially providing for more uses.
- The blended water can be used to irrigate a wider variety of landscapes, especially in poorly draining soils.
- The blended water is expected to attract new industrial customers who will find that the enhanced water quality can reduce cooling and manufacturing costs.
- Construction will start in October of 2010 and is expected to be completed in the spring of 2012.
- The design and construction will be funded by approximately \$30 million from the Santa Clara Valley Water District, \$11 million from the City of San José, \$8.25 million in federal stimulus funds and \$3 million in state grant funding.

# Advanced Recycled Water Treatment Facility

## Background, Benefits and Status

The Santa Clara Valley Water District (District) and the City of San Jose (City) are currently collaborating on the construction of an Advanced Recycled Water Treatment (AWT) Facility project to enhance the quality of recycled water supplied by South Bay Water Recycling to communities in Santa Clara County. This project, which is endorsed by the Silicon Valley Leadership Group, would reduce the salinity of recycled water to a target of 500 ppm (parts per million), ensuring its continued suitability for current and future irrigation and industrial customers while further protecting area ground water. Advanced treatment would also remove other contaminants that might be in the water including trace organics and emerging constituents of concern.

By being located at the San Jose/Santa Clara Water Pollution Control Plant, the AWT facility will mitigate the salt impacts due to the proposed increases in industrial cooling towers uses and indoor water reuse. In addition, this facility will provide additional reliability for the production of non-potable recycled water. This baseline AWT facility could also enable future options to further treat recycled water, such as groundwater recharge reuse.

The AWT facility will have the treatment capacity for 10-million-gallon per day (mgd) microfiltration, 8-mgd reverse osmosis, and 10-mgd ultraviolet light disinfection. The AWT facility will be located at the San Jose/Santa Clara Water Pollution Control Plant (Treatment Plant). Staff from the District and the City have collaborated on the development of this project and the related Engineers Report. The treatment facility capacity, location, preliminary engineering process, expandability, site layout are included in the report. California Environmental Quality Act (CEQA) compliance documents have also been prepared.



Figure 1: Reverse osmosis plant at Alameda County Water District works to remove excess salt & minerals.

## Estimated cost

The current construction cost is \$42.38 million. This includes using land owned by the San Jose/Santa Clara Wastewater Treatment Plant (worth approximately \$2M); costs for engineering and construction management; construction contract costs; and this estimate also accounts for inflation.

In April 2007, the California Department of Water Resources awarded an approximately \$3 million state grant to this project. In addition, the District and the City recently received an additional \$8.25 million in federal funding through ARRA for this project.

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## What is Advanced Treatment?

Advanced Treatment generally refers to the treatment process that employs the best available technology. Today's best available treatment technology is the use of reverse osmosis in combination with microfiltration and ultraviolet light disinfection.

### Microfiltration (MF)

Microfiltration is a low-pressure membrane filtration process that takes small suspended particles, bacteria and other materials out of the water. Microfiltration provides the most efficient preparation of water for reverse osmosis. It is used in commercial industries to process food, fruit juices and soda beverages; in computer chip manufacturing; and to sterilize medicines that cannot be heated.

### Reverse Osmosis (RO)

Reverse osmosis is a high-pressure membrane filtration process that forces water through the molecular structure of several sheets of thin plastic membranes to filter out minerals and contaminants, including salts, viruses, pesticides, and other materials. The RO membranes are like microscopic strainers - bacteria and viruses, as well as inorganic and most organic molecules cannot pass through the membranes.

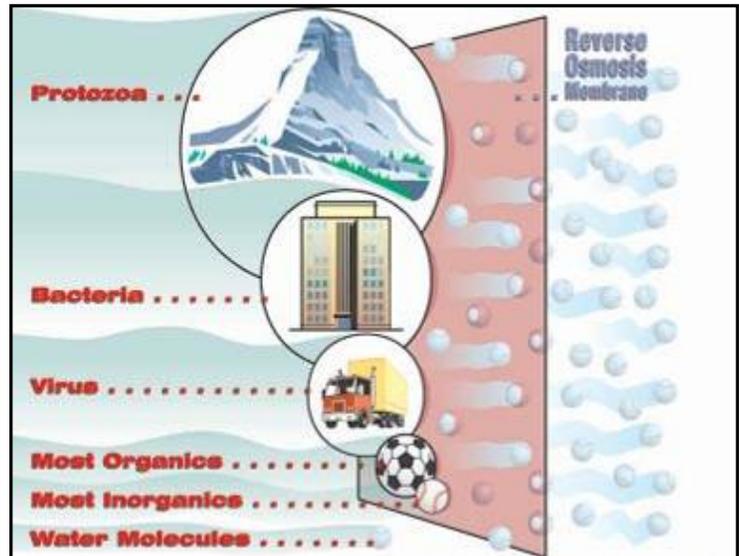


Figure 2: These objects show the relative size of particles that are filtered out by a reverse osmosis membrane compared to a water molecule - shown as the size of a tennis ball. Water molecules are forced under high pressure through the molecular structure of the membrane.

### Ultraviolet (UV) Light and Hydrogen Peroxide Treatment

During ultraviolet disinfection, water is exposed to ultraviolet (UV) light to provide disinfection. This is the same process used on instruments in medical and dental offices. Additionally, ultraviolet light combined with hydrogen peroxide creates an advanced oxidation reaction that eliminates any remaining contaminants in water by breaking them down in harmless compounds like carbon dioxide and water. This multiple barrier process creates an ultra-pure water.

In July 2002, Singapore announced that it would use microfiltration, reverse osmosis, and ultraviolet light in their NEWater process and as a significant part of its future water plans. Singapore's plan is to use these three processes to treat domestic wastewater before discharging the NEWater into reservoirs to augment drinking water supply. The NEWater plant became its most toured facility, attracting professionals and casual tourists from all over the world. In 2007, the Groundwater Replenishment System in Orange County, CA adopted the same treatment technology in its operations and became the largest groundwater recharge and reuse project in California; the official grand-opening occurred in early 2008.

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### Next Steps

Construction for this project is scheduled to begin in October 2010. A groundbreaking ceremony is planned for Oct 22, 2010 at 10 a.m.

### Potential Next Steps

Salinity reduction is a key step if the District and the City decide to pursue future groundwater recharge with recycled water. Recycled water use can be expanded to many additional uses by reducing the salinity to 500 ppm but groundwater recharge requires much lower salinity, in the range of 30-50 ppm.

The Advanced Treatment Facility would employ the best available technology, similar to that currently being used by the Orange County Water District's Groundwater Replenishment Project which has spent years demonstrating the reliability and safety of advanced treatment, and is already recharging their groundwater basin with recycled water. Operational data from the South Bay Facility would be useful in the future during the application process for securing groundwater recharge permits from the regulatory agencies and seeking public acceptance.

The lead time for implementing a groundwater recharge reuse project is approximately 10 to 15 years. Groundwater recharge reuse projects across the world, including Singapore's NEWater, Orange County's Groundwater Replenishment Project, and Australia's latest reservoir augmentation project, show that gaining public acceptance takes many years and is key to success. Implementing the advanced treatment project in Santa Clara County now would provide tremendous value to gain this public trust and acceptance.



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# 2010 Urban Water Management Plan



The District's Urban Water Management Plan (UWMP) documents important information on water use and supply in Santa Clara County and serves as a valuable resource for water supply planners and policy makers.

UWMPs are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. UWMPs include an assessment of water supply reliability over a minimum 20-year planning horizon considering normal, dry, and multiple dry years.

The UWMP is a foundational document for the preparation of water supply assessments and written verifications as required by Senate Bill (SB) 610 and SB 221 for projects subject to CEQA consisting of more than 500 dwelling units or equivalent water use.

Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 or more connections is required to prepare and submit an UWMP. Typically, UWMPs are due on December 31 of years ending in 0 and 5.

The 13 water retailers are the primary stakeholders involved in the preparation of the UWMP. Coordination of this effort with water retailers is primarily through the Retailer Water Supply Subcommittee.

## Plan Contents

The UWMP 2010 includes a general discussion on the history of Santa Clara Valley Water District as well as information on climate, demographics, and the economy of Santa Clara County. Water supply sources including groundwater, local surface water, imported water, water recycling and efforts related to desalination are described in the plan. Also included is information on historical water use, water conservation programs, demand projections, water shortage contingency and supply interruption planning, water quality, reliability and threats to reliability. In addition, the plan examines the water supply outlook in the County under different hydrologic conditions in accordance with DWR guidelines.

## Linkage to Water Master Plan

A significant portion of the analysis performed and information gathered to satisfy the requirement of the Urban Water Management Planning Act will be directly applicable to the development of the Districts Water Supply and Infrastructure Master Plan (Water Master Plan). The 2010 UWMP is based on current operational assumptions and supplies and any shortages identified in the plan, and how to best address these, will be evaluated in the Water Master Plan.

SBX 7 7 granted an extension to urban retailer water suppliers for the adoption of the 2010 UWMP to July 1, 2011 in order to include technical methodologies associated with the calculation of 2015 and 2020 water use targets developed by the California Department of Water Resources (DWR). Similarly, urban water wholesalers were granted the same six month extension through SB 1478 to facilitate better coordination between water retailers and wholesalers.

## Schedule

Our current schedule is to complete the draft 2010 UWMP by the end of 2010. We anticipate that the formal public hearing for the UWMP 2010 will be opened, closed and adopted by the Board in March and April 2011. The public hearing will be advertised in local newspapers and notices will be provided to all cities and the county of Santa Clara, local water retail agencies, local community groups, and various local agencies and interested parties via mail and email. The UWMP 2010 will be modified as appropriate to address comments received from the public, other agencies and water retailers. The final UWMP 2010 will be submitted to DWR by the regulatory deadline of July 1, 2011.

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## What is the Water Supply and Infrastructure Master Plan?

The Water Master Plan will describe the District's strategy for long-term water supply reliability. Key features of the Water Master Plan are:

- Baseline infrastructure assessment
- Supply and demand evaluation and needs assessment
- Assessment of climate change and environmental impacts
- Capacity evaluation and needs assessment
- Description of the District's water supply strategy for long-term reliability and the infrastructure necessary to store, treat, and distribute that water
- Risk-based approach to prioritizing projects and programs to meet future supply and infrastructure needs
- Implementation Plan that presents the planned projects and programs, their costs, and when they should be implemented over a 25-year planning horizon.



The Master Plan will address a variety of needs

## Why do a Water Master Plan now?

One of the primary drivers for the Water Master Plan is the need for a long-term financial strategy to ensure efficient investment of public funds. The Water Master Plan will include an implementation program that schedules projects based on finances, risk, and water supply and infrastructure needs. The objective is to ensure that investments are 1) consistent with the District's water supply strategy and necessary for securing water supply reliability, 2) coordinated with other investments to avoid stranding assets or replacing assets before needed, 3) balancing the need for maintaining the existing infrastructure with the need for investments in future water supply reliability.

The District's 2005 Urban Water Management Plan (UWMP) identified water supply shortfalls beginning around 2020 and increasing to 31,100 acre-feet per year by 2030. Shortages may come sooner or be more severe given curtailments in imported water supply, climate change, and other uncertainties. The District is currently updating the UWMP, including the water supply shortfall analysis. The Water Master Plan will update the District's roadmap for ensuring future water supply reliability in light of future uncertainty and increasing demands.

The District is working on and tracking a number of special studies and issues. These include recycled water advanced treatment, indirect potable reuse including groundwater recharge reuse, desalination feasibility, San Luis Reservoir Low Point Improvement Project, Los Vaqueros Expansion Project, Delta policy, Fisheries and Aquatic Habitat Collaborative Effort, water treatment plant improvement plans, and dam seismic stability studies. The Water Master Plan will provide a strategy for linking current and initiating future studies to ensure water supply reliability.

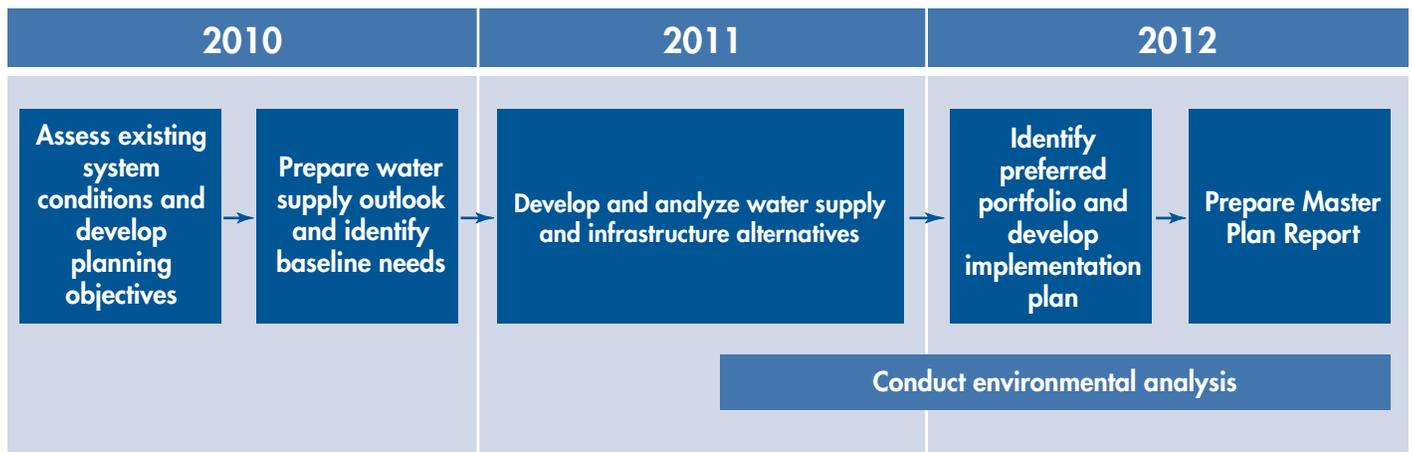


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# Water Supply and Infrastructure Master Plan

The Integrated Water Resources Planning Study 2003 (IWRP 2003), which is the District's most current long-range water supply planning study, developed a planning framework, tools, and recommendations related to water supply reliability. However, IWRP 2003 did not specify a plan for implementing its recommendations related to ensuring long-term water supply reliability. The Water Master Plan will update the IWRP information and will also include an implementation plan.

The District's last countywide infrastructure plan was completed in 1975. It described the how the District would expand the county's water distribution system to make use of new imported water supplies. Most of the projects in the plan were completed. As the District moves forward with planning for water supplies to meet future demands, it is important to also plan for the infrastructure that will be necessary to store, treat, and convey those supplies.



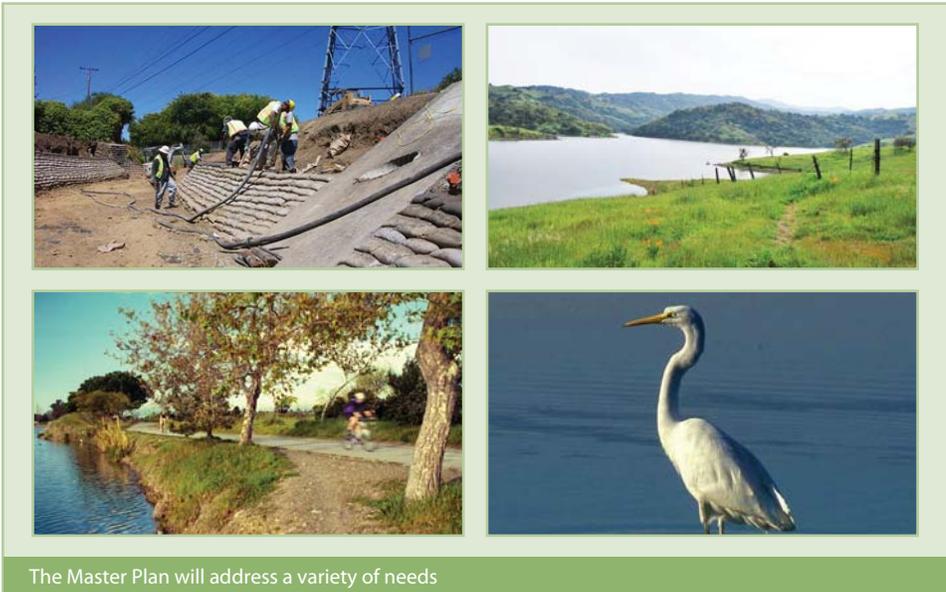
## What is the project schedule?

Work on the Water Master Plan began in early 2010. Planning objectives and an analysis of the current condition of the water supply system should be complete by June 2010. By January 2011, the District will complete a needs assessment for the current system that identifies both water supply and infrastructure needs. Most of 2011 will be spent developing and analyzing alternatives for meeting water supply system needs. In 2012, the District will identify the preferred portfolio of projects for addressing needs and develop an implementation plan that schedules those projects based on finances, risk, and needs. In 2012, the District will identify the preferred portfolio of projects for addressing needs and develop an implementation plan that schedules those projects based on finances, risk, and needs. The District will complete the Water Master Plan and associated environmental analysis by December 2012.

## Who will be involved?

Most of the technical work on the Master Plan will be completed by District staff. A stakeholder committee consisting of representatives from a broad range of interests will provide feedback on key Master Plan decisions and approaches. Staff will also seek input from the District Board's Advisory Committees. The District's Board of Directors will provide policy direction to staff.

For more information, please contact Tracy Hemmeter at (408) 265-2607, ext. 2647; or by email at [themmeter@valleywater.org](mailto:themmeter@valleywater.org).



## What is the Flood Protection and Stream Stewardship Master Plan?

The Flood Protection and Stream Stewardship Master Plan guides the strategic investment of public funds in Santa Clara County in support of the Santa Clara Valley Water District's Flood Protection and Stream Stewardship Program. The water district is now updating the current plan to extend the horizon another 25 years.

## What is the Flood Protection and Stream Stewardship Program?

The Santa Clara Valley Water District's mission is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner for current and future generations. The Flood Protection and Stream Stewardship Program primarily implements the watershed stewardship portions of the mission, related to protecting Santa Clara County from floods and storm waters and ensuring healthy creeks, bays and watersheds.

## What is the project schedule?

The Master Plan is based on an aggressive schedule aimed at completing the planning, analysis, data collection, technical evaluation, funding analysis, report writing, and stakeholder engagement and outreach in a 16-month period. Work on the Master Plan began in January 2010 and is scheduled to be completed in May 2011.

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The program includes the following components:

- Natural flood protection
- Reduced potential for flood damages
- Healthy creek and bay ecosystems
- Clean, safe water in creeks and bays
- Trails, open space and water resources management

In the last 30 years, the program has removed nearly 100,000 properties from flood-prone areas. Other accomplishments since 2001 include:

- Removal of 371,292 cubic yards of sediment from creeks to reduce flood risk.
- Repair of over 7.5 miles of eroded creek banks.
- Restoration of 59.19 acres of riparian habitat.
- Creation of 299 acres of freshwater and tidal wetlands.
- Creation of 54.23 miles of new trails.
- Removal of 41,651 cubic yards of trash from creeks.

# Flood Protection and Stream Stewardship Master Plan

The table below shows planned milestones and timing for the Master Plan’s development:

2010-2011 Planning Schedule	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Identify goals and objectives related to the Flood Protection and Stream Stewardship Program.																	
Document the existing program over a 25-year planning horizon to determine resulting levels of service.																	
Conduct first round of stakeholder engagement meetings.																	
Develop needs and opportunities.																	
Conduct the second round of stakeholder engagement meetings.																	
Develop draft proposed program.																	
Conduct a third round of stakeholder engagement meetings.																	
Complete the Master Plan Report.																	

## Why do a Master Plan now?

The existing Flood Protection and Stream Stewardship Plan was last updated in 2000, as part of the voter-approved Clean, Safe Creeks and Natural Flood Protection special parcel tax, which provided significant funding to implement the program. The plan’s funding structure has a built-in sunset date of 2016. The sunset allows for evaluation of program effectiveness, re-assessment of community needs, and the addition of new projects for the future. Evaluation and re-assessment of the program is now due.

The Master Plan will allow the water district to strategically build upon the achievements funded by the Clean, Safe Creeks and Natural Flood Protection parcel tax, which sunsets in 2016. The Master Plan will also verify and incorporate community values while reflecting changing conditions in economic, technical, environmental, and regulatory arenas.

Other factors driving the development of the Master Plan include the need to align program activities with recently updated Board policy and the need to align and coordinate planning efforts with other internal initiatives in support of an integrated district-wide planning approach.

## Who will be involved?

All the work associated with the development of the Master Plan will be completed by water district staff. The project includes a stakeholder engagement component to achieve sufficient representation and engagement of various interests to facilitate the development of a Master Plan that captures stakeholder support and buy-in.

The three rounds of stakeholder engagement will include meetings with the water district board’s Environmental Advisory Committee, the four Flood Control and Watershed Advisory committees, as well as separate community meetings in North and South County. Other stakeholders meetings include chambers of commerce, professional organizations, and interested community groups.

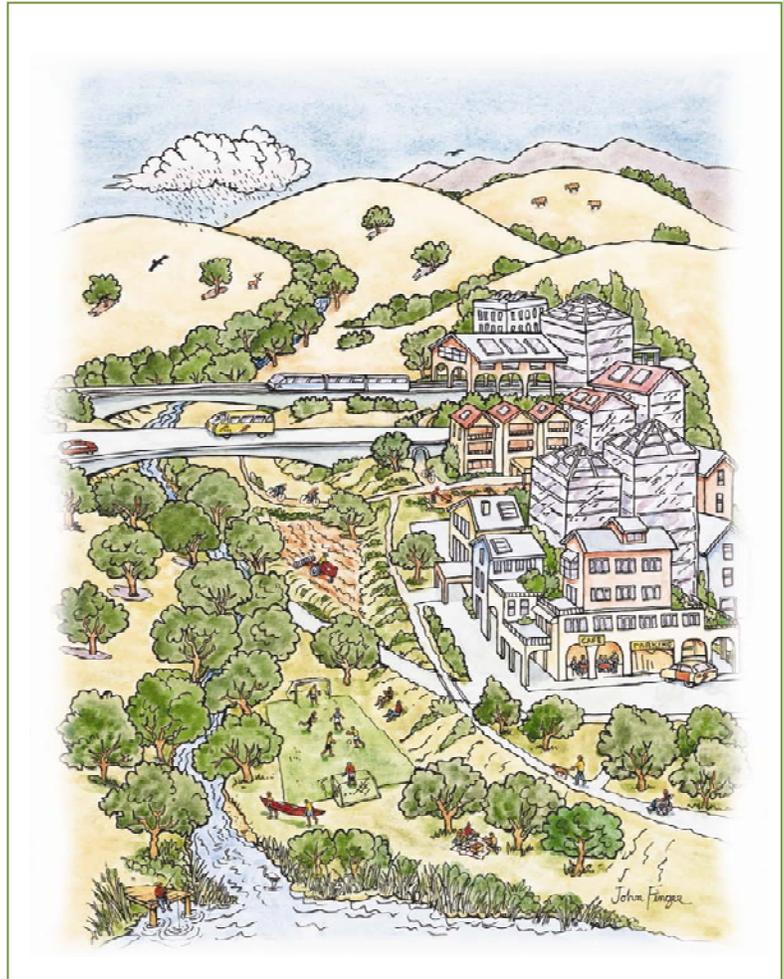
For more information, please contact Luis Jaimes, Senior Project Manager, at (408) 265-2607, ext. 2576; or by email at [Ljaimes@valleywater.org](mailto:Ljaimes@valleywater.org).

# What is a Watershed?

Watersheds are geographic areas in which water, solids, sediments and dissolved materials drain and flow to a common water body. In Santa Clara County, common water bodies may include larger creeks, groundwater basins and San Francisco Bay.

The Santa Clara Watershed Basin is bounded by the Santa Cruz Mountains on the west, Diablo Mountains on the east, the part of Menlo Park that drains toward San Francisquito Creek on the north and the bottom of Coyote Valley on the south. All of the Santa Clara Watershed Basin flows to the San Francisco Bay south of the Dumbarton Bridge. Water south of Coyote Valley flows to the Monterey Bay.

Watersheds include wetlands, riparian areas and uplands. Watersheds can be thought of as the fundamental building blocks of the landscape serving as natural “consolidators” of all activities affecting water quality, runoff and infiltration, hydrology, stream and wetland habitats, aquatic species, and other resources and conditions.

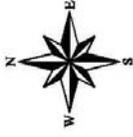


Different types of water within a watershed, including surface water in the form of streams, lakes, and reservoirs, imported water and recycled water, and groundwater stored in the basin aquifers, are all connected. Watersheds serve the important function of collecting the local source water for streams, reservoirs, wetlands, estuaries, and the groundwater basin. Watersheds also collect and cleanse water supplies, as they filter through buffer areas and the ground, and provide key economic and recreational activities throughout Santa Clara County. Finally, healthy watersheds play a critical role in supporting forests, agriculture, fisheries and essential wildlife habitat.

Sustaining and maintaining watersheds may present challenges as urbanization can cause impacts to both the volume and quality of the runoff and the groundwater basin. These include impacts to local surface water quality as runoff gathers contaminants, increased erosion and sedimentation in the streams due to an increase in the frequency of flood events and peak flows, and impacts to the quality and quantity of groundwater resources.

Protection of watersheds must consider uplands, riparian areas, floodplains, wetlands, lakes, streams and the estuary. Upland protection is necessary to minimize excessive sediment transport downstream, minimize pollutant inputs into streams and protect other hydrologic features.

# Major Watersheds within the City of San Jose

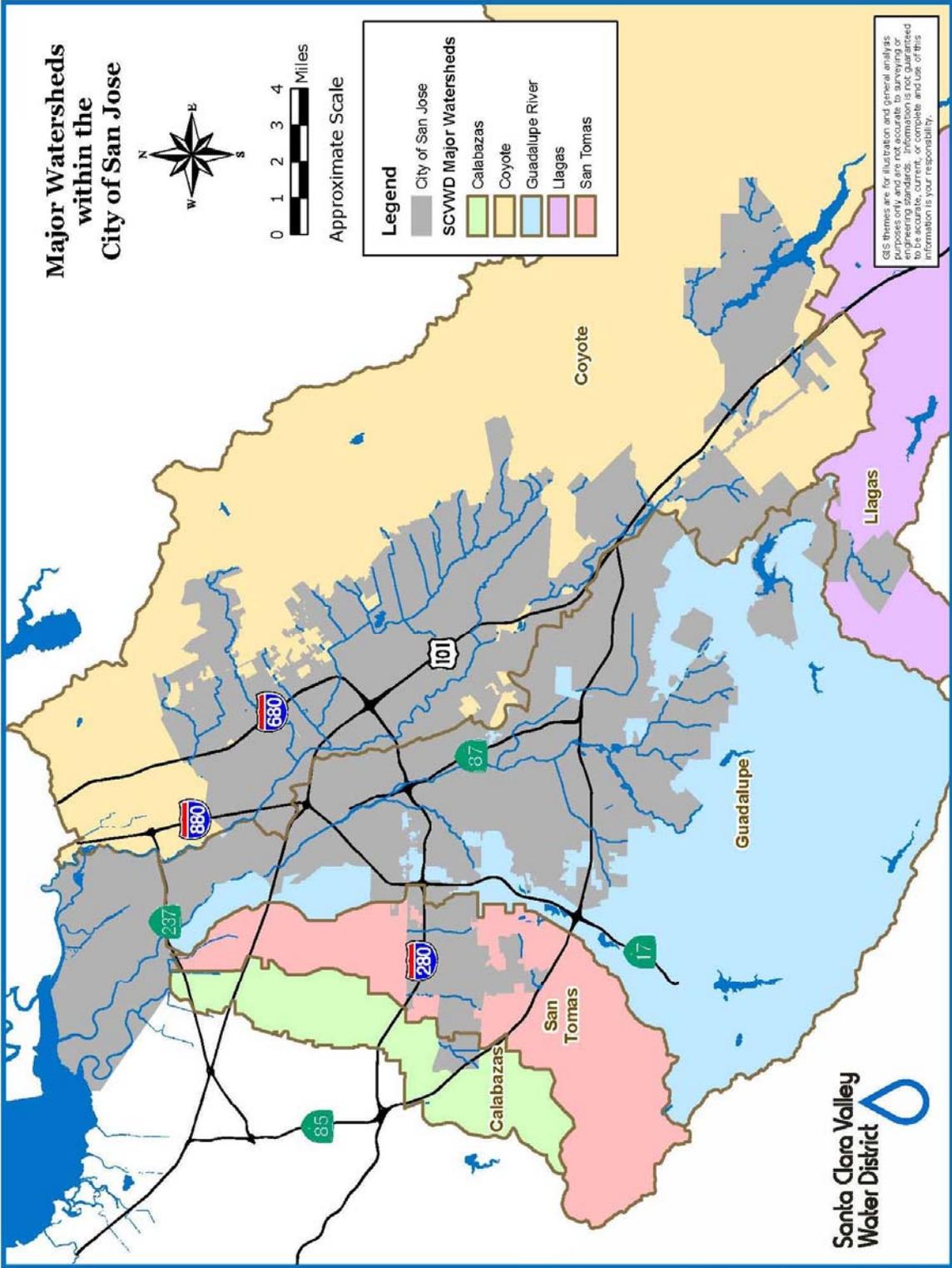


Approximate Scale

**Legend**

- City of San Jose
- SCWWD Major Watersheds
  - Calabazas
  - Coyote
  - Guadalupe River
  - Llagas
  - San Tomas

GIS themes are for illustration and general analysis purposes only, and are not accurate to surveying or engineering standards. Information is not guaranteed to be accurate, current, or complete, and use of this information is your responsibility.



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# Controlling Pollutants

## What Are the Key Pollutants and Why Are They So Hard to Control?

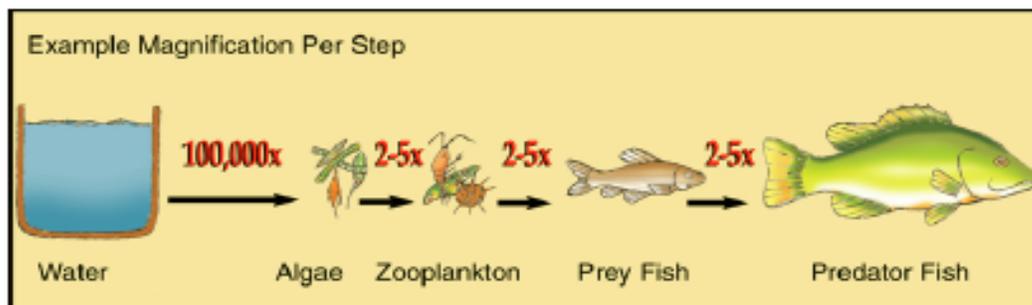
Pollutants are materials that can do harm to the environment and/or endanger human health. In the watershed, pollutants can sicken or kill fish and wildlife, degrade natural habitats, or compromise the health of people who swim in the water or eat the fish they catch. The San Francisco Bay Regional Water Quality Control Board (Water Board) evaluates water quality data, identifies which pollutants are causing impairment to the San Francisco Bay, determines appropriate water quality limits for these priority pollutants, and develops regulatory requirements including a framework of programs and activities to be implemented by wastewater and stormwater agencies to meet those water quality limits.

Pollutants in stormwater can be very difficult to control because they often come from widely dispersed or poorly identified sources. Copper, for example, is a common component in automobile brake pads, and is distributed widely as the pads wear. Many pollutants, such as PCBs, are “legacy pollutants”-- compounds that are no longer produced or used yet they persist in the environment. Records are often poor or non-existent as to how and where such “legacy pollutants” were used, making it difficult to track sources.

Some pollutants bioaccumulate (increase in concentration in the body’s tissue) as they travel up the food chain from smaller to larger animals. This means that very small amounts of the pollutants in the environment can result in high levels in fish and wildlife. This is especially true for mercury, PCBs, dioxins, and many pesticides.

### Priority Pollutants Identified by the Water Board

- Mercury
- PCBs
- Copper
- Nickel
- Dioxins
- Pesticides
- Sediment
- Trash



## What Are We Doing About Pollutants?

### Total Maximum Daily Load (TMDL)

When a creek, river, lake, or other body of water is “impaired” by a pollutant, that is, when a specific pollutant is causing harm to the life using the water, the federal Clean Water Act requires that a Total Maximum Daily Load (TMDL) study be done to determine the sources of the pollutant and a plan be made to reduce the amount of the pollutant so that the water body can recover. Often, too little information is available to make a reasonable plan, so the stormwater agencies participate in special studies or collaborate in regional efforts to help supply the needed data.



Monitoring in Coyote Creek

### Monitoring

The City and the District are part of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP or Countywide Stormwater Program), which conducts stormwater monitoring watershed-wide. SCVURPPP visits and monitors portions of the Santa Clara Valley’s streams and creeks every year, collecting and analyzing samples for pollutants in

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accordance with its multi-year monitoring plan. Although participation in the SCVURPPP satisfies most of the stormwater monitoring requirements, co-permittees such as the City and the District also take action individually to implement programs to help control mercury, PCBs, copper, pesticides, and other pollutants.

### What is Sediment?

Sediment is soil, sand, and other debris washed from streets and land into creeks and rivers. Erosion of sediments is a natural process, but human activities like construction can generate excess sediment laden with pollutants that impact the storm drain system and our creeks and Bay.

### Erosion and Sediment Control

Most pollutants stick to dirt and sediment, and measures to reduce erosion help keep pollutants out of creeks and the Bay. Erosion and sediment control requirements for municipal activities, construction, and new and redevelopment effectively minimize the amount of sediment-bound pollutants getting into stormwater and into the creeks.

### Source Reduction

Reducing use and proper disposal of items containing pollutants is an effective means to keep them out of the watershed. Recycling programs can help control mercury, which can be found in fluorescent light bulbs, thermometers, switches, and other devices. Copper releases are minimized through activities such as discouraging the use of architectural copper, encouraging the use of low-copper brake pads, and low-copper pool maintenance.



Fluorescent lamps for recycling at Central Service Yard

Additionally, careful use of Best Management Practices (BMPs) in agency operations minimizes our own releases of potentially harmful chemicals. The City's Environmentally Preferred Purchasing Program works to ensure that products purchased and used by the City are environmentally sound and avoid harmful chemicals whenever possible.

### Outreach and Regional Collaboration

Outreach and regional collaboration in monitoring and science are the cornerstones in the City's and District's efforts to control pollutants. Moreover, the City and the District, through SCVURPPP, participate in regional efforts to better understand sources and the ultimate fate of pollutants. This is done through direct involvement with regional groups and programs such as the Bay Area Stormwater Management Agencies Association (BASMAA), the San Francisco Bay Regional Monitoring Program (RMP), the California Stormwater Quality Association (CASQA), and others.

### What Are the Next Steps?

As control measures and natural degradation are slated to bring some pollutants under control, attention will turn to other pollutants. For example, phasing out diazinon and other pesticides and replacing them with pyrethroids reduces the problems caused by diazinon but may cause problems of their own. Other compounds, such as PBDEs, are used widely and effective as flame retardants in garments and other products, but they are emerging in increasing concentrations in the environment. Additional concerns include the chronic problem of trash, and a wide suite of emerging contaminants that may disrupt endocrine systems of wildlife.

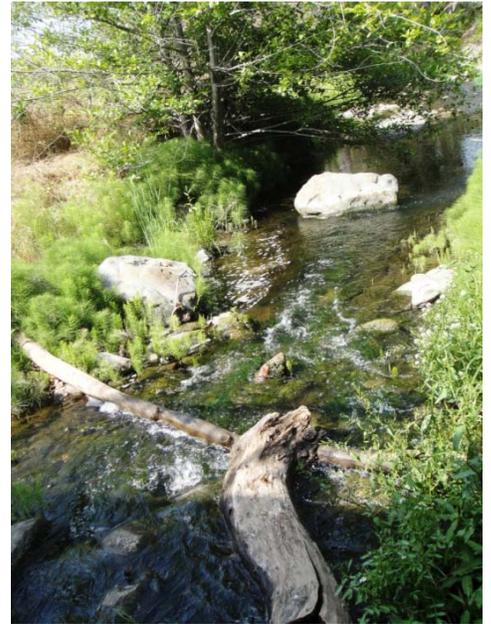
The City and District will continue to work collaboratively with the Regional Water Board, regulated partners, non-governmental organizations, and other stakeholders to assess the magnitude of the problems posed by existing and emerging pollutants, and to develop and implement strategies for minimizing the urban portion of their impacts on the environment.

# Municipal Regional Stormwater Permit

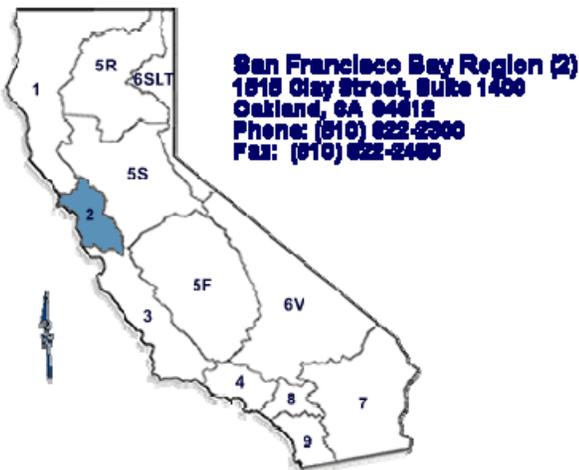
## What is the Municipal Regional Stormwater Permit?

On October 14, 2009, the San Francisco Regional Water Quality Control Board adopted the Municipal Regional Stormwater NPDES Permit (MRP) for the San Francisco Bay Region. The MRP became effective December 1, 2009, and remains in effect through November 30, 2014. It replaces the formerly separate countywide municipal stormwater permits with a Stormwater Permit for all 76 Bay Area municipalities in an effort to standardize stormwater requirements throughout the region.

The City of San José and the Santa Clara Valley Water District, along with the 74 other co-permittees in the Bay Area now share a common permit to discharge stormwater to San Francisco Bay. This five-year permit, issued pursuant to the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. The permit specifies actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable and effectively prohibit non-stormwater discharges into the municipal storm sewer system to protect local creeks and the Bay.



## Who Issues the NPDES Permit?



The Federal Clean Water Act was enacted in 1972 by the Federal Government to restore and maintain the chemical, physical, and biological integrity of the nation's waters for the beneficial use by both people and wildlife. Prior to 1987, the Clean Water Act focused on point source discharges like those from wastewater treatment and industrial facilities. The Act was amended in 1987 to clarify and focus regulatory efforts on non-point sources of pollutants and stormwater runoff.

California's Porter-Cologne Water Quality Control Act, enacted in 1969, is akin to the Federal Clean Water Act. Porter-Cologne established the State Water Board as well as nine Regional Water Quality Control Boards (Water Boards) to provide oversight on water quality issues at a regional and local level.

The City of San José and the Water District lie within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SF Water Board). The State and its nine Water Boards administer the NPDES permit program and in 1990, the SF Water Board issued the first stormwater permit in the nation to the Santa Clara Valley Nonpoint Source Pollution Control Program, the precursor to today's Santa Clara Valley Urban Runoff Pollution Prevention Program.

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## Required Program Elements

In order to minimize pollution and protect surface water quality to the “Maximum Extent Practicable”, the permit requires permittees to regulate the following areas, known as Program Elements, to control stormwater discharges to the storm sewer system and ultimately to the local creeks, rivers and the Bay. These required elements are encompassed within the following permit provisions:

- New and Redevelopment
- Industrial and Commercial Site Controls
- Illicit Discharge Detection and Elimination
- Construction Site Control
- Public Information and Outreach
- Water Quality Monitoring
- Pesticides Toxicity Control
- Trash Load Reduction
- Mercury Controls
- Polychlorinated Biphenyls (PCBs) Controls
- Copper Controls
- Polybrominated Diphenyl Ethers (PBDE), Legacy Pesticides, and Selenium
- Exempted and Conditionally Exempted Discharges



Construction Site Storm Drain Protections



Water Quality Monitoring



Public Education and Outreach



Potable Water Discharge Best Management Practice



Trash in Creeks

# What is SCVURPPP?

The Santa Clara Valley Urban Runoff Pollution Prevention Program ("SCVURPPP," or "Program") is an association of thirteen cities and towns in Santa Clara County, the County of Santa Clara, and the Santa Clara Valley Water District (Water District). These agencies are co-permittees, and shared a common permit to discharge stormwater into the South San Francisco Bay. With the adoption of the Municipal Regional Stormwater Permit (MRP), these agencies now part of a common stormwater permit covering 76 Bay Area agencies discharging to San Francisco Bay. The Program coordinates implementation among the Santa Clara agencies. The Program incorporates regulatory, monitoring, and outreach measures aimed at reducing pollution in urban runoff to the "maximum extent practicable" to improve the water quality of South San Francisco Bay and the streams of Santa Clara Valley. The Program received the 2006 EPA National Stormwater Management Award, the 2006 3rd place NAFSMA Excellence in Communication Award, and the 2007 NAEP National Environmental Excellence Award.

### Organization and Management

The Program is organized, coordinated, and implemented in accordance with a Memorandum of Agreement (MOA) signed by the 15 Santa Clara co-permittees. The MOA details the responsibilities of each co-permittee and a cost-sharing formula for joint expenditures. Annual Program costs are approximately \$3.75 million with the City and the District each providing approximately \$1.1 million. The Program's Management Committee, consisting of one designated representative from each co-permittee, meets monthly to discuss and make decisions regarding Program business. EOA, Inc. is contracted to provide Program management services.

The Program develops an annual Work Plan with clearly defined tasks, responsibilities, and schedules to be implemented by the co-permittees, in each individual jurisdiction, and collectively through the Program. The Work Plan includes new, expanded, or redirected efforts resulting from the adoption of the MRP.

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Source: Santa Clara Valley Water District  
Watershed Characteristics Report  
WMI Santa Clara Basin

### A Brief History of SCVURPPP

#### June 1990 – Phase 1 Permit

The Program receives the first Phase 1 municipal stormwater permit in the nation.

#### 1995 and 2001 – Re-issuance

The Program's permit is reissued twice, with each permit containing more stringent requirements.

#### October 2001 – New and Redevelopment

The Water Board amends the permit to include expanded requirements for controlling pollutants from new and redevelopment activities (Provision C.3).

#### July 2005 - Hydromodification

The Water Board amends the permit to phase implementation of treatment controls on small projects and to approve key provisions of the Program's Hydromodification Management Plan (HMP).

#### February 2005 - MRP

The Program, along with 76 other agencies, begins working with the Water Board to develop a Bay Area-wide Stormwater Permit, known as the Municipal Regional Permit (MRP).

#### October 2009 – MRP Adoption

The Water Board adopts the MRP which becomes effective December 1, 2009.

## What SCVURPPP Does

### Regulatory Guidance and Advocacy

The Program provides regulatory interpretation and guidance to co-permittees on the Stormwater Permit and other legal and regulatory issues that affect the Program. Recently, the Program was very active in the MRP process, representing co-permittee interests at BASMAA and with the Regional Water Board. SCVURPPP gives its co-permittees the ability to speak with one voice on regional issues that impact stormwater management.

### Multi-year Monitoring Program

The Program monitors and assesses surface water quality in the Santa Clara Basin. This multi-year program includes biological, chemical, and physical assessments of urban and upstream waterways. The annual sampling efforts are designed to assess the magnitude and sources of pollution and identify physical habitat problems associated with urban runoff. Additional important components of the program are to detect long term trends, comply with NPDES permit provisions, integrate with state and regional programs, and communicate results to the public. This program will be integrated with the regional monitoring collaborative established to fulfill the monitoring requirements specified in the MRP.



### Outreach and Education

The Program implements the Watershed Watch campaign. This award-winning campaign consists of general media outreach, participation in local public and school events, and partnerships with local businesses and trade organizations.



[www.mywatershedwatch.org](http://www.mywatershedwatch.org)

The Program also implements targeted outreach and education activities concurrently with Watershed Watch. Activities such as *The Musical Watershed* elementary school assembly program, *Watershed Watchers* grant to the Don Edwards National Wildlife Refuge Environmental Education Center in Alviso, integrated pest management outreach to restaurants and commercial landscapers, and coordination with region-wide media and outreach efforts fulfill permit requirements to work to change specific behaviors which negatively impact water quality and to increase public understanding and appreciation of creeks and the Bay.

### Report Coordination and Submittal

The MRP requires submittal of an Annual Report to the Water Board. The Program coordinates the development and submittal of the Program wide and each individual co-permittee's fiscal year annual reports. The Annual report is submitted in September and reflects completed activities from the previous fiscal year ending on June 30. The Program also coordinates submittal of other MRP required work products.

## Why Trash in Creeks is a Problem

Trash impairment in creeks is a serious concern to both the City of San José (City) and the Santa Clara Valley Water District (District). Trash can form large accumulations in creeks, which may hamper recreational use, impact water quality, and potentially cause flood-control problems. Trash accumulates in creeks several ways, including illegal dumping, homeless encampments, transport and deposits from wind, or through urban storm sewer systems. Recognizing a mutual concern and potential to leverage resources, the City and District have partnered to address the growing problem of trash.

## Joint Effort to Address Trash in Creeks

In 2004, the City and the District entered into a Memorandum of Agreement for Trash Prevention and



*Partnered Cleanup of Guadalupe River at Almaden Rd and Curtner Ave, August 2009*

Removal (Trash MOA) in creeks and waterways within the City of San José. The scope of the initial Trash MOA allowed for City and District staff to conduct up to three partnered cleanups annually on severely trash impacted reaches of creek within San Jose. A Joint Trash Team was formed to coordinate these cleanups and identify potential points of collaboration for

increasing efficiency in trash prevention and removal. The Trash MOA allowed the Joint Trash Team to target resources in areas that have serious trash accumulations and were not addressed by any regular litter management efforts.

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## Scope of the Trash MOA

- I. **Perform partnered cleanups**  
Identify and implement clean up projects that fall outside the scope of the City and District's routine trash-removal activities. These cleanups address sites that due to their location, site-specific safety concerns, source and/or nature of debris, are not included in regular operations and maintenance activities of either the City or the District. The Trash MOA stipulates that up to five partnered cleanups may be undertaken annually.
- II. **Perform illegal encampment cleanups**  
Identify and implement clean up of illegal encampments on City and District property and easements. The Trash MOA stipulates that up to ten large encampment cleanups may be undertaken annually, and small encampment cleanups may be conducted up to a weekly basis, if not impacting other vital programs.
- III. **Specify improvements & new initiatives**  
Review and recommend improvements to existing programs, coordinate tactics, and identify new activities to be undertaken as part of this agreement, such as pre-cleanup outreach and the use of enforcement.
- IV. **Coordination**  
Coordinate with other trash-related programs and activities, such as the Trash Ad Hoc Task Group of the Santa Clara Valley Urban Runoff Pollution Prevention Program.

Building on the success seen with the partnered cleanups, the City and the District revised the Trash MOA in 2008 to include partnership on cleanups of trash and debris from illegal homeless encampments. The revised Trash MOA established a clear system for organizing the cleanup of small and large encampment sites, and the San Jose Police Department and Department of Housing were brought on as partners to the Joint Trash Team. The Trash MOA has improved the ability of both parties to pool resources to address trash in creeks in an efficient and cost-effective manner. It also has allowed both parties to have an on-going focused effort on tackling trash from homeless encampments and accumulations that otherwise would remain in the waterways and riparian areas.

In the Fiscal Year 2009-2010, the Trash MOA has resulted in the removal of 110.84 tons of trash, debris and hazardous wastes from segments of the Guadalupe River, Los Gatos Creek, Canoas Creek, and Coyote Creek.

2009-2010 Trash MOA Cleanups	Tons Removed	Types of Debris Removed
<b>Partnered cleanups:</b> Guadalupe River, downstream of Skyport Dr Coyote Creek between Story Rd and 280 Guadalupe River, upstream of Curtner Bridge Guadalupe River between Coleman Ave and Hedding St Coyote Creek from confluence with Silver Creek to Julian St	<b>7.27</b> 0.33 0.92 3.62 1.40 1.00	<ul style="list-style-type: none"> <li>• Garbage</li> <li>• Illegally dumped large items (e.g.: appliances and furniture)</li> <li>• Hazardous waste (e.g.: batteries, oil, tires)</li> </ul>
<b>Large illegal encampment cleanups</b> Coyote Creek, multiple locations	<b>74.59</b>	
<b>Small illegal encampment cleanups</b> Guadalupe River, Los Gatos Creek, Canoas Creek, multiple locations	<b>28.98</b>	<ul style="list-style-type: none"> <li>• Trash rafts</li> <li>• Construction debris</li> <li>• Encampment debris (i.e. discarded clothes, tents, tarps, small electronics)</li> </ul>
<b>Total:</b>	<b>110.84</b>	

# Trash in Creeks

## Trash Reduction Requirements and Programs

Consumer items and waste materials such as food and beverage containers (e.g., plastic bags and bottles), cigarette butts, food waste, construction and landscaping wastes, furniture, electronics, tires and hazardous substances (e.g., paint, batteries) are discarded everyday in the Santa Clara Valley (California). While many of these items are properly disposed of, many are not. This portion is collectively called “trash,” and once in local water bodies it can adversely impact fish, wildlife, residents and visitors. Trash is one of the most common and visible pollution problems in urban creeks. Trash and litter can form large accumulations in creeks, which hamper recreational use, impact water quality, and potentially cause flood-control problems. Trash accumulates in creeks several ways, including illegal dumping, homeless encampments, deposits from wind, or through urban storm sewer systems. In October 2009, the San Francisco Bay Regional Water Board adopted the San Francisco Bay Municipal Regional Stormwater Permit (MRP). The MRP requires cleanup of in creek trash Hot Spots and installation capture trash devices. Furthermore, the MRP establishes aggressive goals for trash load reductions of:

- 40% by 2014;
- 70% by 2017;
- 100% by 2022.



### Trash Requirements

The MRP directs co-permittees to implement specific trash control measures, and develop and implement a plans to reach the trash reduction goals. Per the MRP, all co-permittees must develop a Baseline Trash Load measurement and create a methodology for tracking trash reductions. City staff is working with staff from the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and staff from other jurisdictions to develop the baseline loading estimates and tracking.

#### Hot Spot Clean-ups

The City and Water District are required to identify and annually clean 32 and 12 trash Hot Spots, respectively. Each Hot Spot is a 300-foot length of creek bank, or 600-foot length of shoreline. Annual cleanup and assessment must include photo documentation before and after the cleanup, and assessment of the volume of material removed, and identification of dominant types of trash removed and their sources to the extent possible. The City and Water District Hot Spots are shown on the Trash Hot Spot map. Cleanup and assessment activities are underway.

#### Trash Capture

The MRP also requires a minimum number of full trash capture equipment to be installed by each jurisdiction. Full trash capture equipment is defined as a device that traps all debris larger than 5mm during a minimum standard storm as



End of Pipe Trash Capture Example

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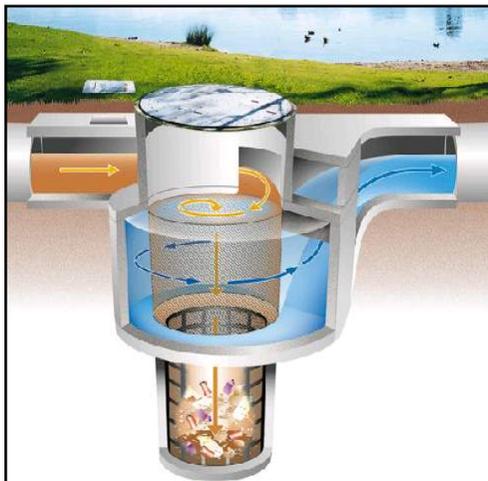
defined in the Permit. The City is required to install a sufficient number of full trash capture devices to treat 895 acres of land area. The District is required to install either four trash booms or eight outfall capture devices, or equivalent measures.

Intercepting and capturing trash in the storm sewer system will be an integral part of the City’s short-term and long term trash reduction strategy. San Jose’s early efforts piloting trash capture devices have produced preliminary information on trash loading that will be expanded upon to develop estimates of baseline trash loading.

In partnership with the City of Sunnyvale and SCVURPPP, the City installed 87 Catch Basin Insert Screens to learn more about the effectiveness and operational contracts of trash capture devices. Preliminary findings show that the devices are effective at trapping materials before they enter the storm draft laterals, but require increased maintenance to maintain effectiveness and prevent flooding. There are over 30,000 catch basins in the City of San José. Catch basin size, shape, and plumbing constraints prohibit installation



Inlet screen installed in a San Jose catch basin



Hydrodynamic Separator Schematic

of in-basin structural controls in many of the City's storm inlets, so this treatment methodology will not work everywhere.

Staff is also evaluating the effectiveness of larger trash capture devices, such as hydrodynamic separators. These larger devices are installed in the storm sewer lines closer to the discharge point and separate trash from stormwater flows by various means. These devices are designed to treat relatively large land areas. These devices will require significant initial capital investment, but offer potential advantages of reduced overall maintenance cost, the ability to treat large land areas with one device, and improved tracking of the amount of material prevented from entering the creek.

### Inter-Agency Collaboration

The City and Water District staff are founding members of the Santa Clara County Zero Litter Initiative. The Zero Litter Initiative (ZLI) brings together multiple cities and agencies with a common interest in preventing litter and its impacts on our local streets and transportation corridors, creeks, and neighborhoods. Key players include the cities of San Jose, Palo Alto, Campbell, the Santa Clara Valley Water District, CalTrans, the Santa Clara Valley Transportation Authority (VTA), and the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPP).

The ZLI has developed of a county-wide, multi-year strategy to substantially reduce litter. The strategy includes working with local law enforcement to increase enforcement of littering laws, working with landfill operators and solid waste haulers to minimize litter blowing out of vehicles headed for solid waste facilities, engaging social service agencies to identify tactics to minimize impacts of trash from homelessness, and monitoring and advocating for legislation intended to eliminate or substantially minimize highly littered items.

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## Volunteer Activities

The City and the District organize five “Adopt” programs designed to allow community members to demonstrate stewardship of creeks, parks, trails, and other specific areas within the watershed:

- ❖ Adopt-A-Creek
- ❖ Adopt-A-Park
- ❖ Adopt-A-Trail
- ❖ Adopt-A-Street
- ❖ Adopt-A-Hotspot

These programs instill a sense of pride and ownership in the community, since their name is associated with a specific area and its condition. The City and the District also collaborate as members of the Creek Connections Action Group (CCAG), a consortium of public agencies and non-profit organizations that share a goal of protecting Santa Clara County's waterways. Staff participate in the Creek Connections Action Group Planning Committee and supports the group with materials, labor, promotion of events, and participation as site coordinators at California Coastal Cleanup Day and National River Cleanup Day events. In FY 09-10 on National River Cleanup Day and California Coastal Cleanup Day, the CCAG had 69 cleanup locations, where 2,554 volunteers removed a total of 66,164 pounds of trash from waterways in Santa Clara County.



Volunteers removing trash from Coyote Creek

## Outreach and Education

Trash messages are incorporated into several outreach and education programs offered by the City, the District, and regional partnerships. The City and the District are both active participants in Watershed Watch ([www.mywatershedwatch.org](http://www.mywatershedwatch.org)) the public education initiative of the SCVURPPP. This program provides information and resources for teachers and students on prevention of storm water pollution prevention, including litter.



The City and District are members of the Silicon Valley Anti-Litter Campaign (SVALC). In 2007, the SVALC launched the “Litterbug Hotline,” where people can report vehicle littering. Vehicle owners are saying that their vehicle was spotted littering on a specific date and location. The cost of litter abatement, the California Penal Code for littering, and encouragement to not to litter are included in the letter. The SVALC also organized the Annual Great American Litter Pick Up event, which was held on March 20th, 2010 and had the largest turn out to date with 2,257 volunteers.

## Pollution Prevention and Source Reduction

Cleanups and maintaining trash capture devices are resource intensive approaches to addressing trash impacts on our waterways. These approaches should be complemented with efforts to prevent trash and litter from being deposited in the first place. Source reduction and pollution prevention initiatives such as an expanded public education campaign or potential actions on single use bags, expanded polystyrene, or other highly littered items are critical to changing community acceptance of littering behaviors.

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### Trash Hot Spot Map



## Grant Programs

As a way of partnering with the community to extend our watershed stewardship mission, the Santa Clara Valley Water District administers four grant programs. Each program has its own unique evaluation criteria and funding cycle which have been approved by the Board of Directors.

### Watershed Stewardship

Developed in 2001, this Program solicits proposals from community-based and non-profit organizations; and local governmental agencies for stewardship activities.

**Next cycle:** January 2011 (open for proposals)  
June 2011 (Board award of funding).

**2011 Grant Cycle:** \$660,000 estimated.

General Stewardship: \$200,000

Pollution Prevention (South County): \$60,000

Pollution Prevention (Countywide): \$200,000

Trail Planning/Maps: \$200,000

### Trails and Open Space

This reimbursement based program, funded by the Clean, Safe Creeks & Natural Flood Protection (CSC) special tax, was launched in 2003 and invites cities, the County and open space districts to submit trail and open space project proposals for consideration by a review panel.

**Next cycle:** January 2011 (open for proposals)  
June 2011 (Board award funding).

**Source Funding:** \$920,000 per year by CSC

**2011 Grant Cycle:** \$2 million estimated. Actual amount to be finalized by Board at time of award.



Stevens Creek.

### Environmental Enhancement Implementation

This reimbursement based program will be opened up for external enhancement proposals that create or restore tidal or riparian habitat in its next funding cycle. Previously the program funded district enhancement projects.

**Next cycle:** January 2011 (open for proposals)  
June 2011 (Board award of funding).

**Source Funding:** \$2.09 million per year by CSC

**2011 Grant Cycle:** \$1.8 million estimated. Actual amount to be finalized by Board at time of award.

### Grant Program Funding Cycles

	Jan. 2010	June 2010	Jan. 2011	June 2011
Watershed Stewardship			—	
Trail and Open Space	—		—	
Environmental Enhancement Implementation			—	
Environmental Enhancement Planning	—			

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Clean,  
Safe Creeks

Santa Clara Valley  
Water District



## Your Clean, Safe Creeks vote at work

This project is funded by the voter-approved Clean, Safe Creeks and Natural Flood Protection parcel tax passed in November 2000. The 15-year plan makes it possible to protect homes, schools and businesses from flooding, while improving the health of creek and bay ecosystems, and create public access and open space for recreational enjoyment.

## What we do

The Santa Clara Valley Water District manages water resources and provides stewardship for the county's five watersheds, including 10 reservoirs, hundreds of miles of streams and groundwater basins. The water district also provides flood protection throughout Santa Clara County.

Visit our website, [www.valleywater.org](http://www.valleywater.org).

## You're in a watershed

No matter where you are, you're in a watershed. A watershed is the area of land that drains to a common waterway. In Santa Clara County, our creeks and rivers catch rain and runoff from storm drains and carry the water north to San Francisco Bay or south to Monterey Bay. Along the way, some of the water is used to fill reservoirs for drinking water, replenish the underground aquifer and create better habitat for fish and wildlife.



For more information, contact **Brian Mendenhall** at **(408) 265-2607, ext. [3093]**, or visit our website at [www.valleywater.org](http://www.valleywater.org) and use our **Access Valley Water** customer request and information system. With three easy steps, you can use this service to find out the latest information on the project or to submit questions, complaints or compliments directly to a district staff person.

## Translations

此份聖塔克拉谷水利局 (Santa Clara Valley Water District) 的通知是要讓您知道，水利局已安排在您附近地區進行一項施工工程。要了解工程的詳細情形，請致電 (408) 265-2607 轉分機 2631。

Thông báo này của Nha Cấp Nước Santa Clara Valley (Santa Clara Valley Water District) về dự án xây dựng được dự trù tiến hành trong khu xóm của quý vị. Muốn biết thêm chi tiết về dự án này, xin gọi (408) 265-2607, số chuyển tiếp (ext) 2488.

Ang paunawang ito ay mula sa Santa Clara Valley Water District upang ipagbigay-alam sa inyo ang proyektong nakatakdang gawin sa inyong lugar. Para sa karagandang impormasyon tungkol sa proyektong ito, mangyaring tumawag sa (408) 265-2607 extension 3714.

Este aviso del Distrito de Aguas del Valle de Santa Clara (Santa Clara Valley Water District) es para informarle sobre un proyecto de construcción que está programado en su zona. Si desea más información sobre este proyecto, por favor llame al (408) 265-2607, extensión 2297.



## Fight West Nile Virus

**Target the source. Dump standing water.**

For more information, visit Santa Clara County Vector Control District's website at **[www.sccvector.org](http://www.sccvector.org)**, or call the West Nile Virus Hotline at **1-800-314-2427**.



## Pollution hotline

To report illegal dumping of hazardous materials in, or around reservoirs and creeks, please call **1-888-510-5151**.

# Trail Development: Joint Efforts

This fact sheet presents current trail projects, special trail-related projects and trail grant opportunities of joint City-District interest.

## PLANNING-DESIGN-CONSTRUCTION

### Guadalupe Watershed

#### Guadalupe River Trail (Gold Street to Highway 880):

Final design work is under-way for paving the trail from Gold Street to Highway 880 (6.4 miles). The City will submit 100% plans and an amended Joint Use Agreement to the Water District for permits by November 2010. Construction is anticipated to commence in April 2011 and require 12 months.



Guadalupe River Trail – Woz to Virginia

#### Guadalupe River Trail (Woz Way to Virginia Street):

A paved trail with under-crossings is under construction.

The project follows mostly State right of way along Highway 87 and adjacent to on-going flood protection work. Construction is expected to be completed by December 2010.

#### Guadalupe River Trail (UPRR Bridge reconstruction):

Construction continues on a new railway bridge structure to replace a trestle structure that limited water flow. The project includes a significantly upgraded under-crossing for the trail. Construction should be completed by this winter.

Guadalupe River Trail (Chynoweth-Blossom Hill): The Corps of Engineers will be requested to repair/replace trail improvements impacted by the project.

#### Guadalupe River Trail (Branham-Chynoweth):

District will continue working with CSJ to facilitate trail development along its flood protection project.

#### Almaden Expressway Pedestrian Bridge:

Development of NEPA documentation is underway for a pedestrian bridge that spans Almaden Expressway.

#### Bay Trail Pedestrian Bridge:

Design work and environmental studies are underway to meet NEPA requirements for development of the 540' pedestrian bridge. Pursuit of grant funds is underway for design of a linked 1.1 mile trail that would extend to existing Bay Trail leading to Sunnyvale.

#### Three-Creeks / Willow Glen Spur Trail:

The City continues to negotiate with UPRR for the purchase of parcels along the former railway alignment. UPRR's consultant is managing remediation/clean-up work this fall. Further grant funding from Santa Clara County Open Space Authority and the State of California (Prop 84) is being pursued. Coordination with the Rails to Trails Conservancy is occurring for joint preparation of a grant application seeking funds for master planning.

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Guadalupe River, north of Downtown San Jose

## Coyote Watershed

### Coyote Creek Trail:

Master planning of a 9-mile trail system from Highway 237 Bikeway to Story Road. Environmental documentation (NEPA) due to federal funding is under development. A grant application to construction 1.1 mile from Highway 237 Bikeway to Tasman Drive (Light Rail) was submitted in October 2010.

### Penitencia Creek Trail:

Construction documents are at the 95% stage and funding from the Santa Clara County Open Space Authority is being pursued to support a Santa Clara Valley Water District grant in order to pursue construction.

### Lower Silver Creek – Silverstone:

The project was completed in September. This reach of the trail system is within PG&E right of way and not along the creek.



Lower Silver Creek Trail – Silverstone

## SPECIAL PROJECTS

“Milestone” mileage markers are being deployed along core trails in the network. They identify 1/4 mile increments along the trail. A unique combination of colors, graphics and distance data permit persons seeking assistance to be precisely located by 911 staff. Deployed personnel know the best point of entry and exit from the trail, the pavement conditions and any issues that might limit a rapid response. The markers provide an “address” for incident reporting and data collection. Test deployment is occurring along the Los Alamitos and Calero Creek Trails this December.



Newly Deployed Trail Signage

Custom signage has been developed to provide a unified look for all San Jose trails. The signage supports an effort to encourage safer use of the trails. Deployment will occur along the Los Alamitos and Calero Creek Trails as part of test deployment. Signage will be installed with all new trails and used for replacement of damaged or missing signage on existing trails.

## GRANTS

The District continues to offer grant funding, including the Trail and Open Space Grant Program, through the Clean Safe Creeks and Natural Flood Protection special tax. Next grant cycle: 1/2011 – 6/2011.

The City actively pursues grant programs to fund further trail development. To remain competitive for local, State and Federal resources, the City distinguishes itself by:

1. Attending State and National Conferences for networking, information sharing and gathering;
2. Conducting Trail Count annually to measure trail usage; and
3. Seeking recognition for built projects and practices. San Jose recently received the *Transportation Planning Excellence Award* from the FHWA and American Planning Association.