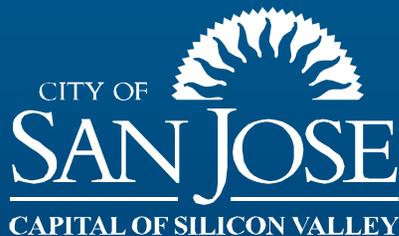


Water Supply Outlook Water Conservation & Water Recycling

**Joint Study Session
City of San José/Santa Clara Valley Water District**

April 23, 2009

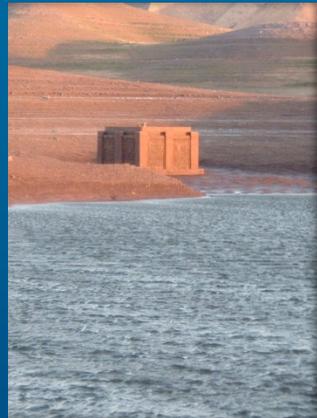


Water Supply Outlook

- Imported Water



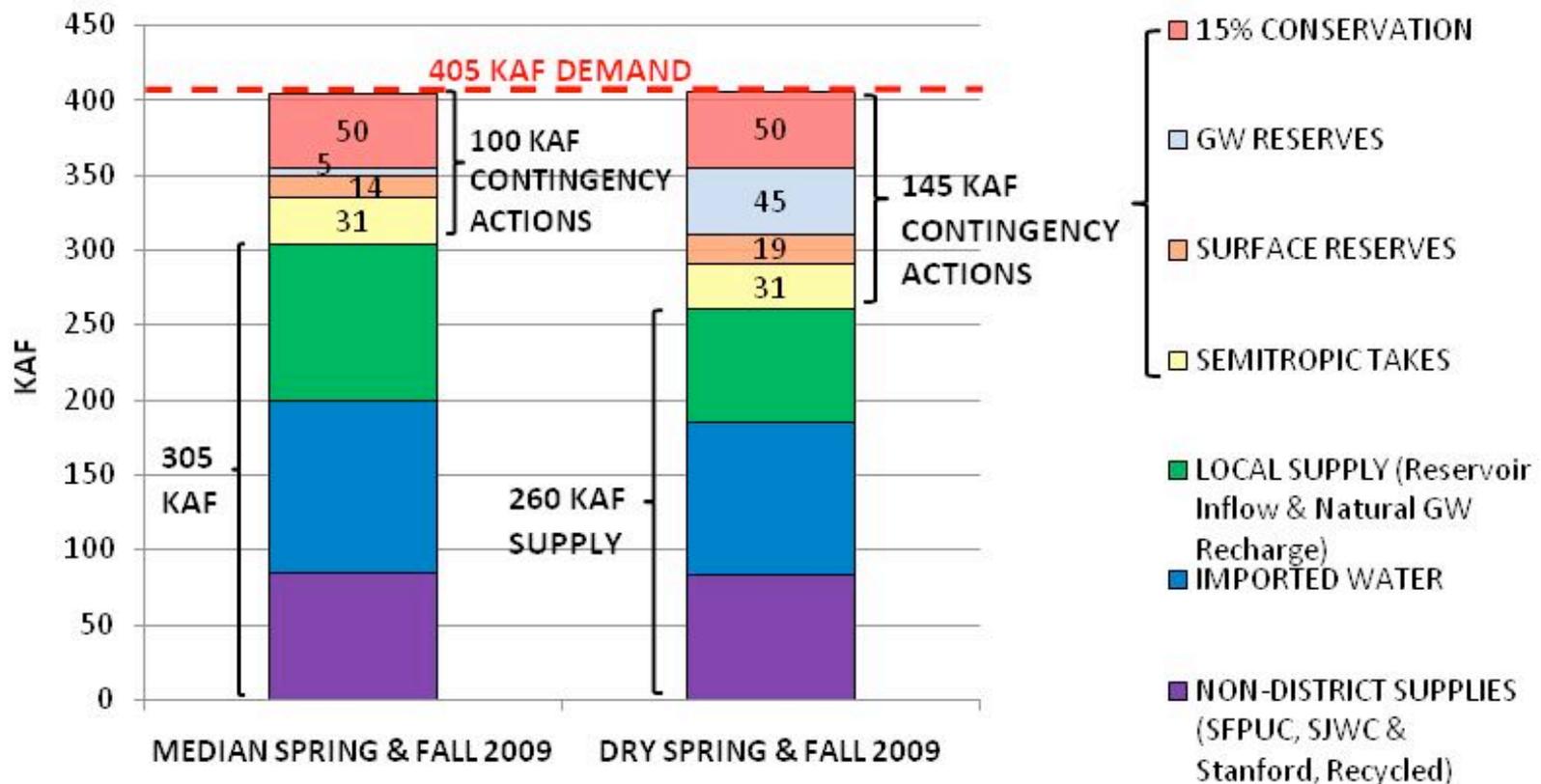
- Local Water



Operational & Regulatory Uncertainty

- Listing of Long Fin Smelt
- Biological Opinion for Salmon
- Limited Transfer Market Semitropic
- Operational Constraints with Banking Program
- San Luis Low Point
- Local DSOD Requirements for Reservoirs

2009 Projected Total County Water Supply & Demand



2009 Contingency & Drought Planning Guidelines

| Stage | | End-of-Year Groundwater Storage in acre-feet (AF) | Demand Reduction Goal |
|-----------|----------------------------|---|-----------------------|
| Normal | You are here March 2009 | 300,000 AF or more | None |
| Alert | | 250,000 AF to 300,000 AF | 10% |
| Severe | | 200,000 AF to 250,000 AF | 10-20% |
| Critical | | 150,000 AF to 200,000 AF | 20-25% |
| Emergency | | Less than 150,000 AF | 25-50% |

2009 Action Plan

| | |
|------------------------------------|--|
| <u>March</u> | |
| District Board: | Adopted resolution calling for 15% mandatory conservation.. |
| District Staff: | Press release / media advisory, opinion piece and drought alert messages. |
| District Staff: | Develop a new & expanded outreach campaign. |
| District Staff: Cities: | Continue coordinated effort to standardize water waste ordinance language for consistency throughout county. |

District Drought Response

March 24, 2009, District Board passed resolution declaring:

- Water Shortage Alert
- Call for 15 Percent Mandatory Conservation
- Urging cities and local water providers to take immediate actions to achieve conservation savings

City of San José Drought Response

Recommendation to Council Transportation & Environment Committee: May 4, 2009

- Declaration of 15% water shortage
- Update ordinance to strengthen water waste prevention measures
- Establish Water Budgets for Muni Water customers
- Increase public outreach & education

City of San José Ordinances & Policies – Planned Efforts

2009: Water Waste/Water Shortage Ordinance

2010: Updated Landscape Ordinance

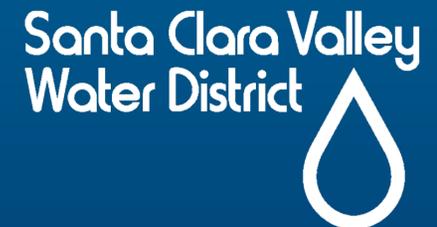
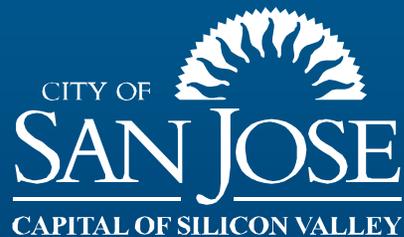
Policies in progress:

- Envision 2040 General Plan Update
- Green Building & revised building design guidelines (Indoor Plumbing, New Construction)

Possible future policies:

- Greywater permits under updated state code
- “Retrofit on Resale” or “Retrofit by New Development”
- City of San Luis Obispo – Retrofit on Resale

Questions on Water Supply Outlook?



Water Conservation



Water Conservation Goals

Short Term Target for 2009

- 15 Percent - or roughly 50,000 AF

Long Term Target (by 2030)

- 100,000 AF/year - countywide
- 50,000 AF/year - San José

Overall County-wide Drought Response

Actions:

- Increased outreach and education
- Adopt/Enforce Ordinances
 - Water-waste
 - Drought response
 - Landscape

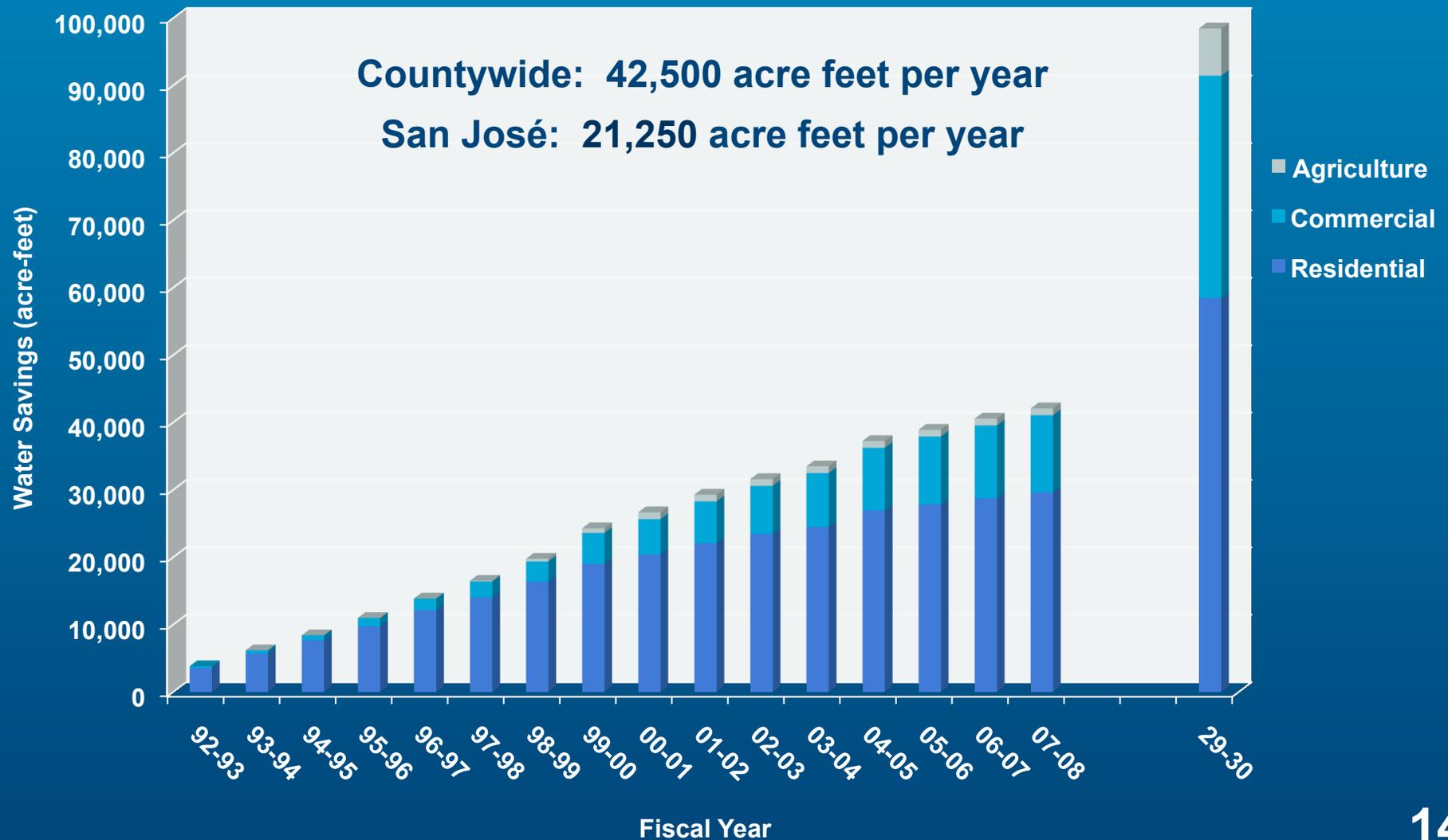
Other Possibilities:

- Allocations
- Conservation Pricing



2008 Water Conservation

Water Savings from SCVWD Conservation Programs



Conservation Program Overview

- 10 Residential programs
- 10 Commercial programs
- 2 Agricultural programs



Awards for Water Conservation Programs

SCVWD awarded Best Overall in 2008 Flex Your Power Awards



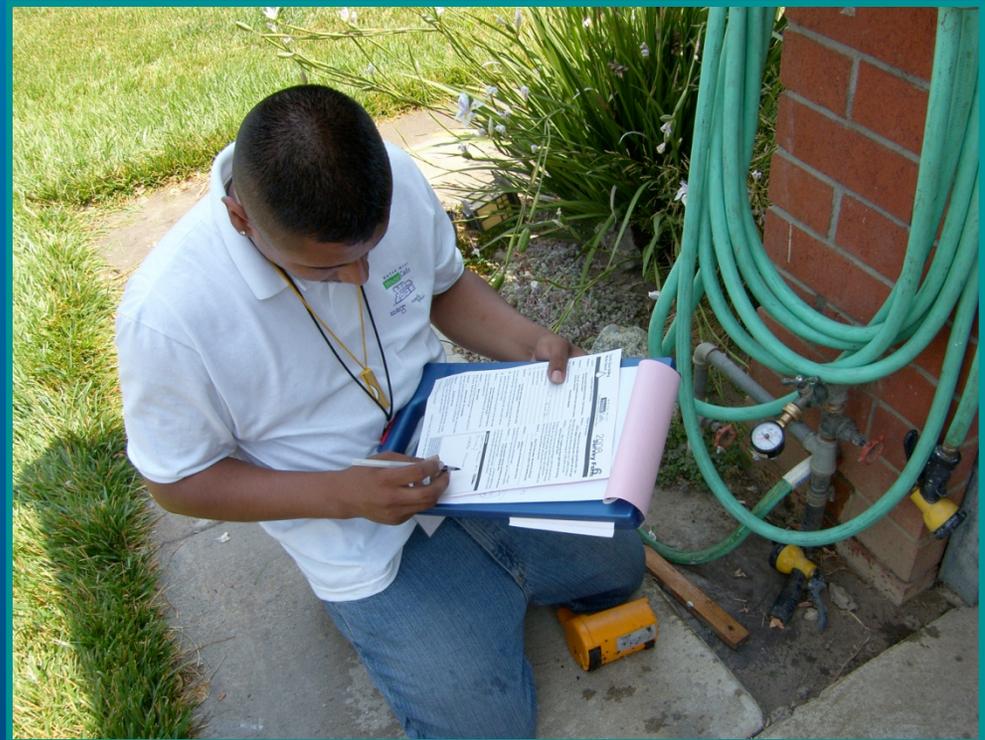
City of San Jose's Water Efficient Technologies Program won a 2009 Silicon Valley Water Conservation Award

Conservation Programs ~ Residential



Clothes Washer Rebates

Water Wise House Calls



Conservation Programs ~ Commercial

Rebates for Water Efficient Technologies



Water Use Surveys



Conservation Programs ~ Agricultural

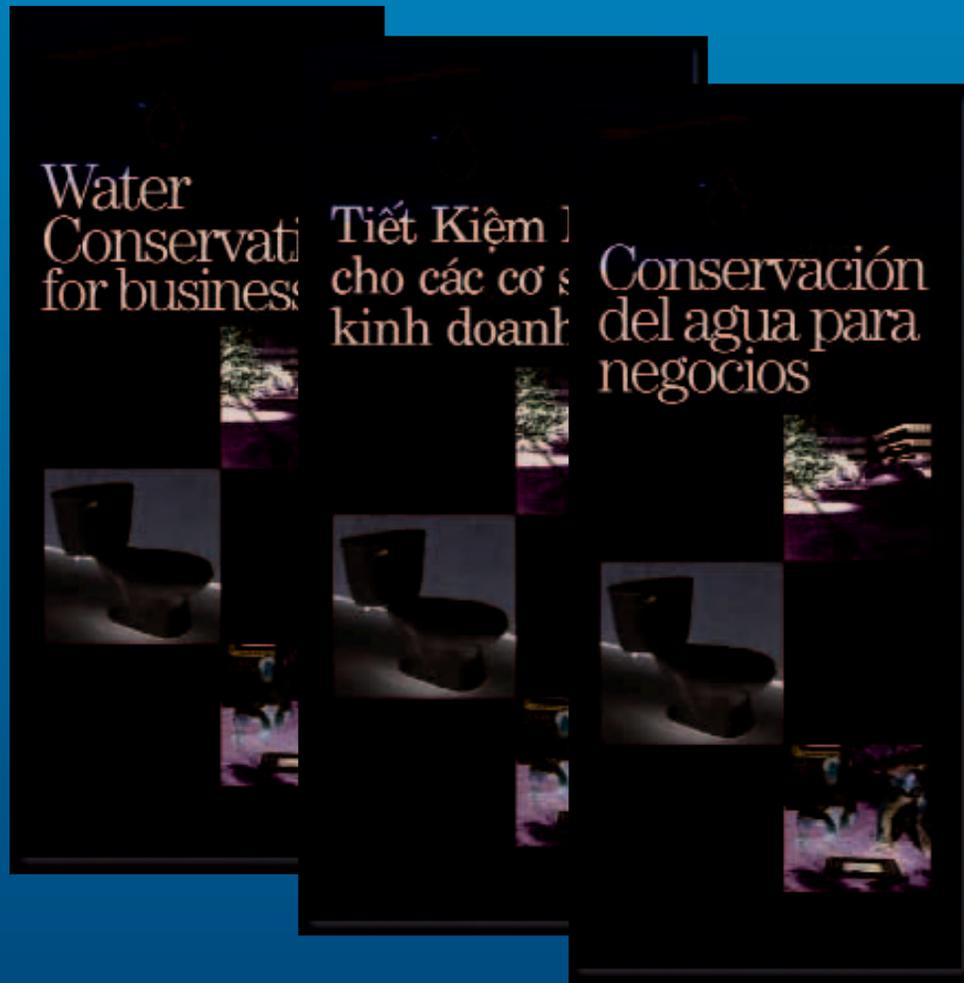


On-Farm Irrigation Technical Assistance Program



California Irrigation Management Information System

Public Education & Outreach



Go to valleywater.org



Once it's on it's gone.

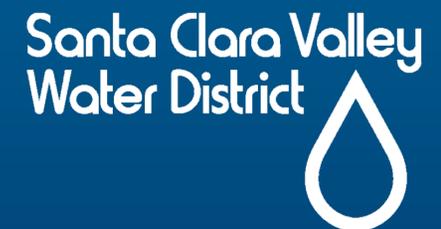
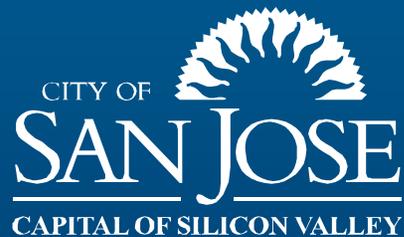
California is in a drought.
We all need to pitch in and conserve.

Valley Water is calling for an immediate 15% mandatory cutback.

Reducing water use is easy. For water-saving tips, a free Water-Wise House Call, and rebates on high-efficiency toilets, washers and irrigation hardware, go to valleywater.org or call 408.265.2607, ext 2554.

Start saving now. Because once it's on, it's gone.

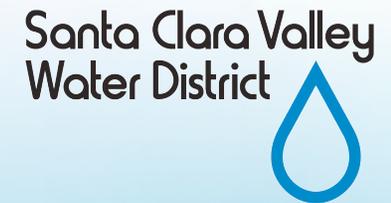
Questions on Water Conservation?



Water Recycling



Recycled Water Goals



Board Ends Policy

By 2022:

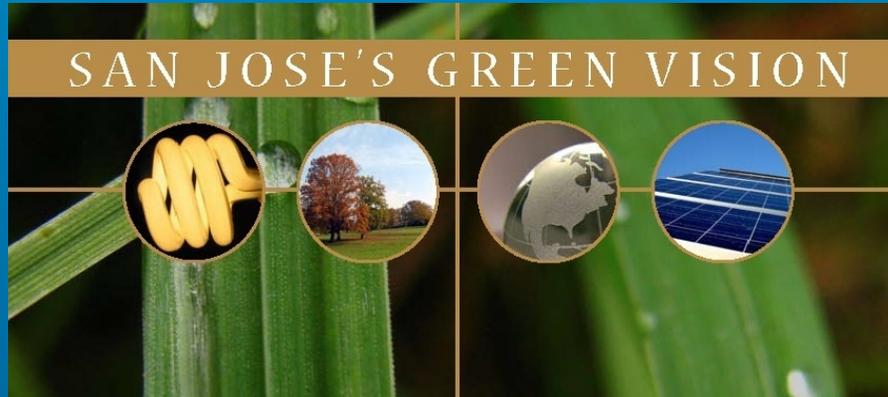
Recycle or beneficially reuse
100% of our wastewater (also
endorsed by the TPAC)

Re-use 40 mgd (45,000 AF/
year)

By 2020:

10% of total water use
will be recycled water

37.5 mgd recycled water
(42,000 AF/year by 2020)



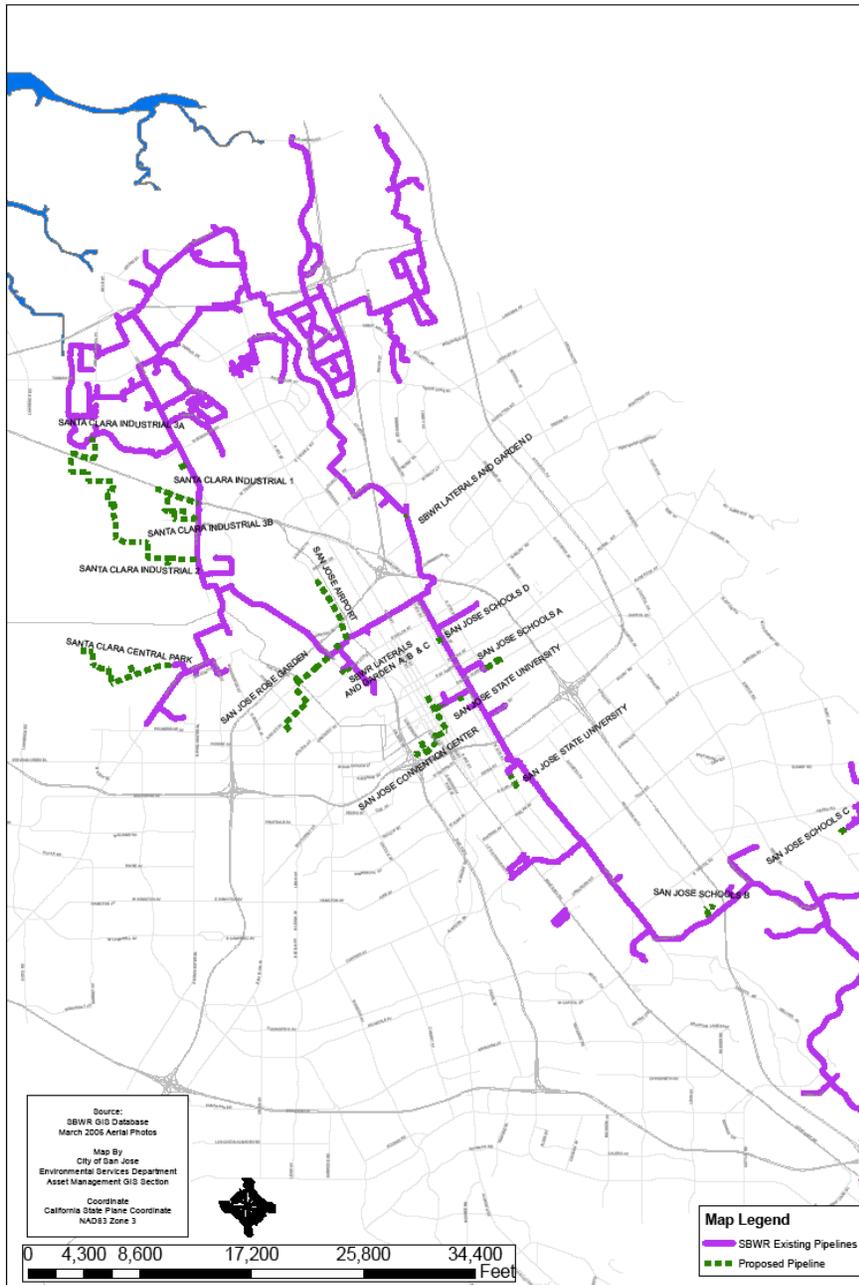
System Expansion

Increase use by 1-2 mgd/yr

- Expand system to developing areas
- Implement developer fee schedules
- Develop ordinance requiring indoor use of recycled water near SBWR pipeline
- Take advantage of ARRA funding opportunities



SBWR 1C IMPROVEMENTS PROPOSED FOR ARRA FUNDING



Projects proposed to USBR for ARRA funds: Santa Clara

- Central Park and Library
- 3 Main Industrial Extensions

San Jose

- Mineta-San Jose International
- Convention Center, Rose Garden, SJSU, parks and schools

Milpitas

- Construction water access points

Key Customers of SBWR Phase 1C Projects

Industrial

- Equinix
- Nvidia
- Pelio
- Air Products
- Mineta-San Jose International Airport
- SJ Convention Center
- MLK Library

Irrigation

- Guadalupe RPG Community Garden
- Santa Clara Central Park
- San Jose State Main Campus
- 8 Schools
- 6 Parks

Current Areas of Focus

- Customer Support
- Public Education
- System Expansion
- City-District Collaboration

Customer Support

- Assist irrigation and industrial customers
 - Landscape plant and water management
 - Cooling tower applications
- Provide guidance to potential customers
- Improve Site Supervisor Training

APPENDIX
I Rules & Regulations
Guidelines for Evaporative Cooling Towers

INTRODUCTION

WHY USE RECYCLED WATER?

In today's highly competitive markets, businesses and institutions have no choice but to make wise use of available resources. Increasingly the most forward-thinking companies are partnering with local utilities to reduce their demands for energy and water, both to save costs and improve the long-term sustainability of their business. Recycled water has been used in industrial settings throughout California and the arid west for nearly 30 years

New Guidelines for Cooling Tower Use



**Silicon Valley
Conference & Expo
(Sept 2008)**



**Site Supervisor
Training (4X/year)**



• **West Coast Green
Conference (Oct 2008)**

Public Education

- Build awareness of recycled water benefits and value
- Increase acceptance and support for irrigation and industrial use of recycled water
- City-District collaborate on outreach message



**National Night Out
Aug 2008 (3,000)**



**Earth Day at City Hall,
April 2008 (1,000)**



**Water Wizards Festival
May 2008 (300 3rd Graders
Parents and Teachers)**



**Pumpkins in the Park
Oct 2008 (9,000)**

Forging a Long-term Recycled Water Relationship

- Formalize cooperative relationship (+40 yrs)
- Commit to mutual District/City/SBWR long-term goals and targets
- Being able to adapt and respond to future issues



Recycled Water Liaison Committee

District

- Director Kamei
- Director Estremera
- Director Kwok

San Jose

- Councilman Chu
- Councilman Oliverio

Santa Clara

- Mayor Mahan



Recycled Water Liaison Committee

Roles and Objectives

- Review and define Committee's objectives
- Review District and SBWR facilities and long-term needs
- Discuss legal, institutional options, benefits and constraints
- Develop program options that address interests of all parties
- Develop key elements of agreement

Recycled Water Liaison Committee Schedule & Agendas

| Goals & Objectives | Facilities Perspective | Institutional Perspective | Options Evaluation | Preliminary Recommendations | Final Recommendations |
|---|---|---|--|--|--|
| August 11 1:00 to 3:00 PM | September 18 10:00 to 11:30 AM | October 16 10:00 to 11:30 AM | November 20 9:30 to 11:30 AM | February 19 9:30 to 12:30 PM | April 9 9:30 to 11:30 AM |
| Meeting Objective: Provide background; define roles and objectives; introduce proposed process & approach | Meeting Objective: Review SBWR & District facilities, near- & long-term needs, plans & integration benefits | Meeting Objective: Review legal & institutional history, options/constraints | Meeting Objective: Develop program options that address interests of both SBWR & District | Meeting Objective: Develop program agreement among parties to advance common interests & goals | Meeting Objective: Review and finalize draft agreement recommendations among parties |
| Agenda <ul style="list-style-type: none"> • Background/history of Collaborative Process • Discuss Liaison Committee role, goals & objectives • Discuss process approach, meeting schedule & agendas | Agenda: <ul style="list-style-type: none"> • Overview of SBWR recycled facilities, operations & plans • Overview of District near- & long-term needs & recycled water options • Discuss goals & benefits of integrated SBWR & District facilities | Agenda: <ul style="list-style-type: none"> • Overview of recycled system legal institutional & financial history • Review alternative facilities ownership & sharing options • Discuss issues & interests regarding ownership options | Agenda: <ul style="list-style-type: none"> • Present consensus facilities plan & operational options • Present consensus institutional & financial options • Identify common interests, benefits, & areas of agreement | Agenda: <ul style="list-style-type: none"> • Orange County Presentation • Present draft elements of recommended agreement • Discuss issues & concerns, proposed modifications and improvements • Finalize key areas of agreement & path forward | Agenda: <ul style="list-style-type: none"> • Review draft agreement for recommendation to Board, Council, & TPAC • Discuss issues & concerns • Agree on final recommendations to Board, Council & TPAC |
| Expected Output: Agreement to proceed with process as revised during meeting | Expected Output: Understanding of current and planned facilities, needs, & joint options | Expected Output: Agreement on viable institutional options for near- & long-term | Expected Output: Identification of viable program options that serve overall needs | Expected Output: Agreement on principles to serve as the basis for ongoing collaboration | Expected Output: Recommended agreement to Board, Council, & TPAC for their consideration |
| AUG 2008 | SEP | OCT | NOV | FEB 2009 | APR |

ACC COMPLETED

Recycled Water Liaison Committee

Key Elements of Agreement

- Coordination
- Policy Advisory Committee
- Technical Advisory Committee
- Benefits to District
- Benefits to City
- Roles and Responsibilities
- Advanced Water Treatment

1. Coordination

- The Parties Commit to Coordination and Collaborative Planning
- Export of Recycled Water Only with Joint Agreement of City Council and District Board

2a. Policy Advisory Committee

The Parties Establish a Policy Advisory Committee (PAC) comprised of :

- A Minimum of Two District Board Members
- Equal Number of Treatment Plant Advisory Committee (TPAC) Agency Members



2b. Technical Advisory Committee

The Parties Establish a Technical Advisory Committee (TAC)

Key Purpose:

- Coordinate on Relevant Activities
- Collaborative Planning
- Sharing Information



3. Benefits to District

The City Reserves the Rights for the District to Obtain:

- A Minimum of 50,000 Acre-Feet Per Year of Secondary Treated Water and Subject to Availability
- Other Available Secondary Treated Water
- Advanced Water Treatment
- Brine to Plant Outfall
- Use of City Site



4. Benefits to City

- City Receives Annual Payments of \$1 Million
- Enhanced Recycled Water Quality
- Avoided additional filtration cost



5. Roles and Responsibilities

- Public Outreach and Participation
- Studies
 - Conveyance and Distribution
 - Streamflow Augmentation
- Collaborative Research Projects
- Pursuit of Grants and Funding
- Capital Investment Decision Making
- Operational Planning for Development or Use of Recycled Water, Including Third Party Agreements

6. Advanced Water Treatment

- City and District Agree on Purpose of Advanced Water Treatment (AWT) Plant and to Collaborative Development and Use of the AWT
- Demonstration of Advanced Treatment Technology
- Public Involvement and Outreach
- Microfiltration & Reliability Benefit
- Enhanced Recycled Water Quality
- Potential for Indirect Potable Reuse



Next Steps



- Today's Joint Council/Board Meeting
- District Board Approval
- Treatment Plant Advisory Committee (TPAC) recommendation and City Council Approval
- Execution of Long-term Framework Agreement
- Formation of Policy Advisory Committee (elected officials) and Technical Advisory Committee (staff)
- Develop amendments to Long-term Framework Agreement by June 30, 2013

Questions on Water Recycling?

