

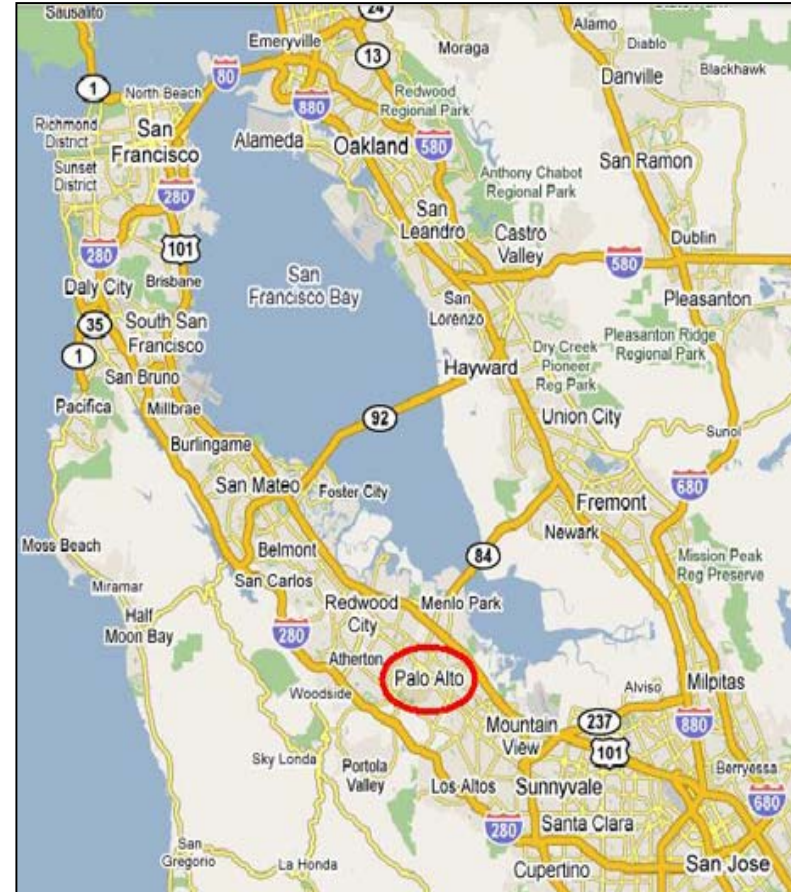
# Water Supply Update and Efficiency Programs

Midtown Neighborhood Association

March 18, 2014

# About Palo Alto

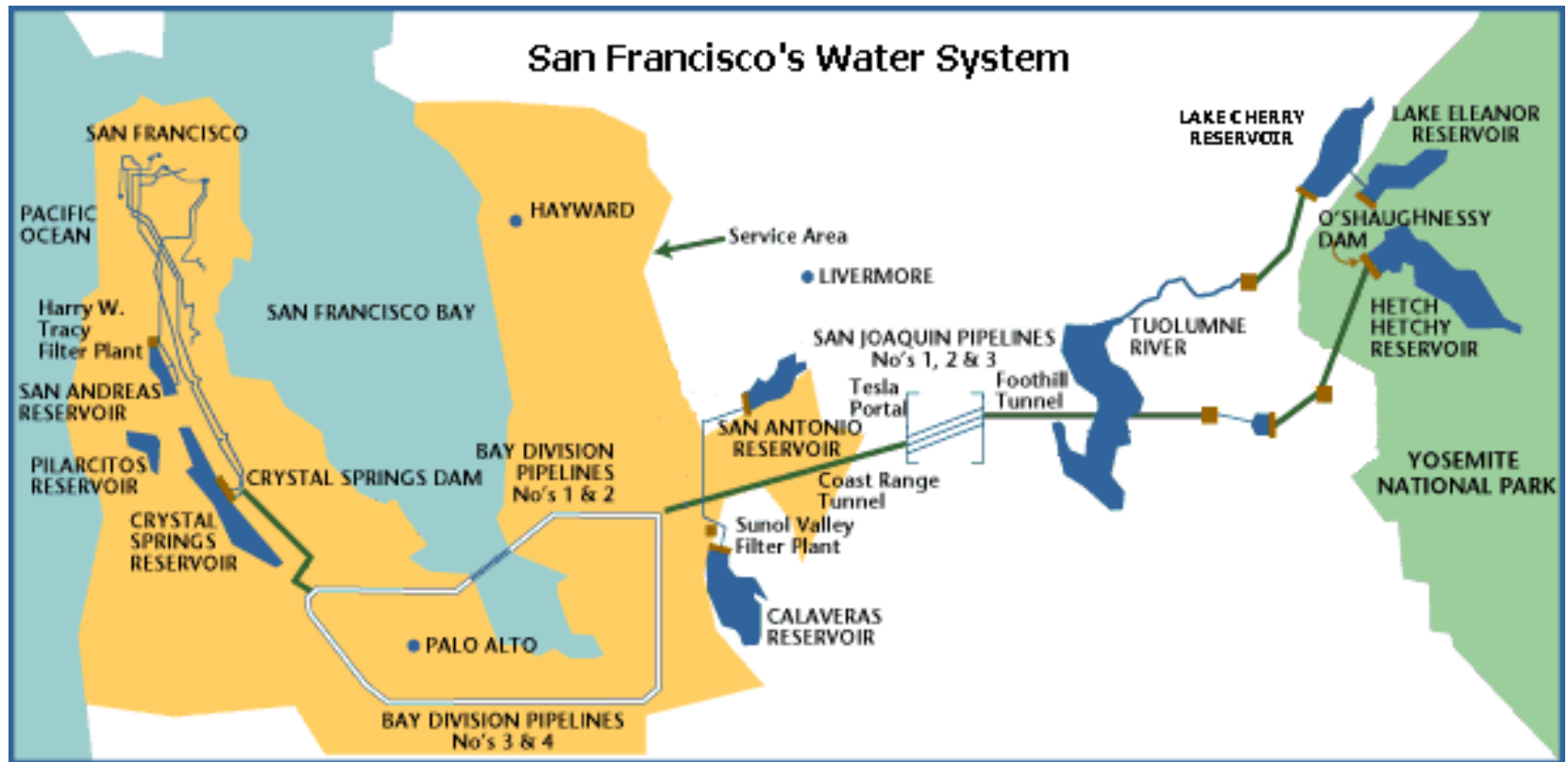
- 65,000 population
- 100,000+ daytime
- Serving 6 utilities
- 17,000 Residential
- 2,500 Non-Res
- 60% Res & 40% CII
- Climate Zone 4



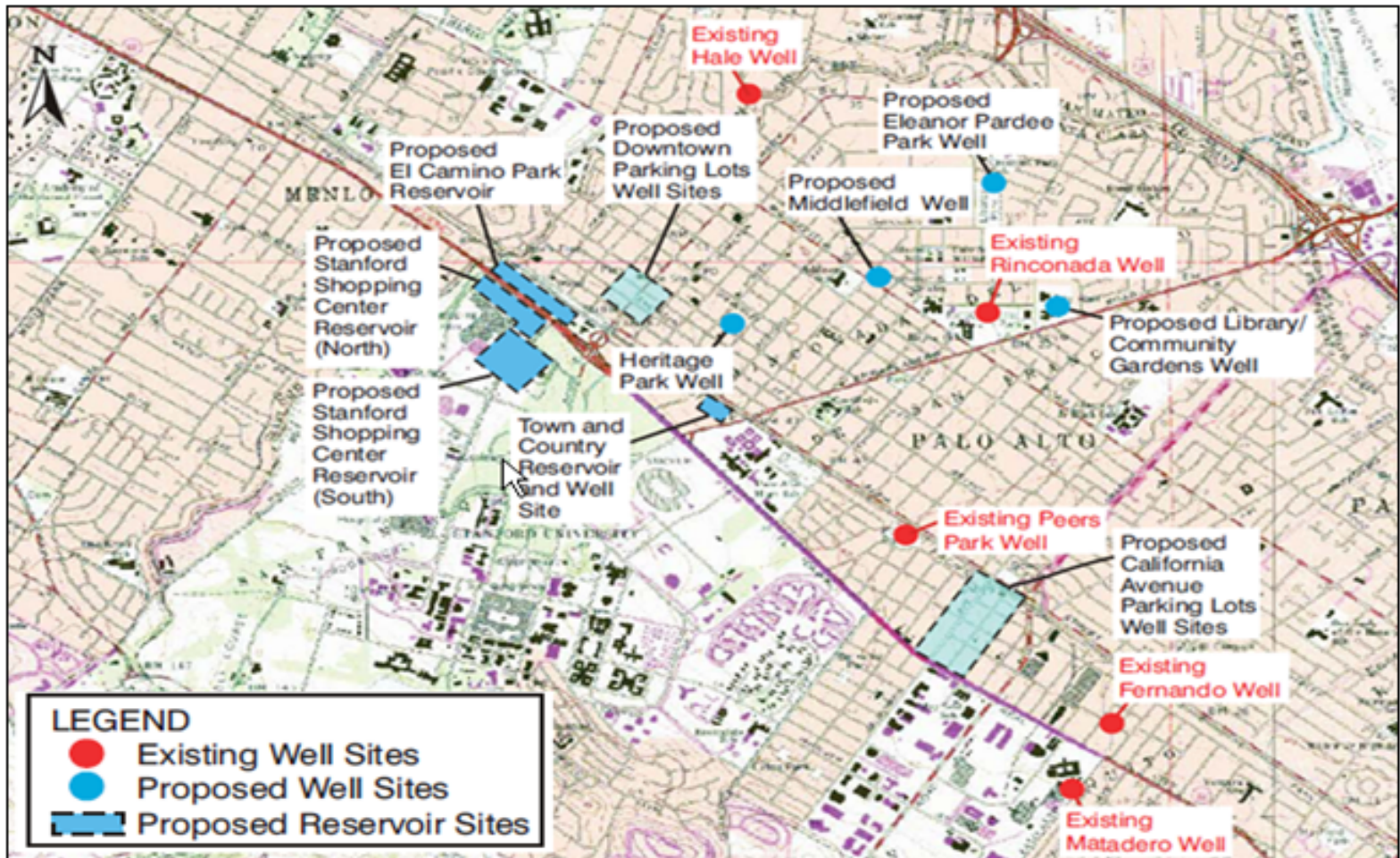
# Palo Alto's Water Supply

- Water supplied by the San Francisco Public Utilities Commission (SFPUC) - Hetch Hetchy system (since 1937; 100% since 1962)
- Recycled water – Palo Alto RWQCP
  - Palo Alto Golf Course
  - Emily Renzel Marsh
  - Greer Park
  - RWQCP
  - Stanford Research Park (future expansion)
- Emergency Groundwater Wells

# Water Supply System



# Local Supply - Groundwater

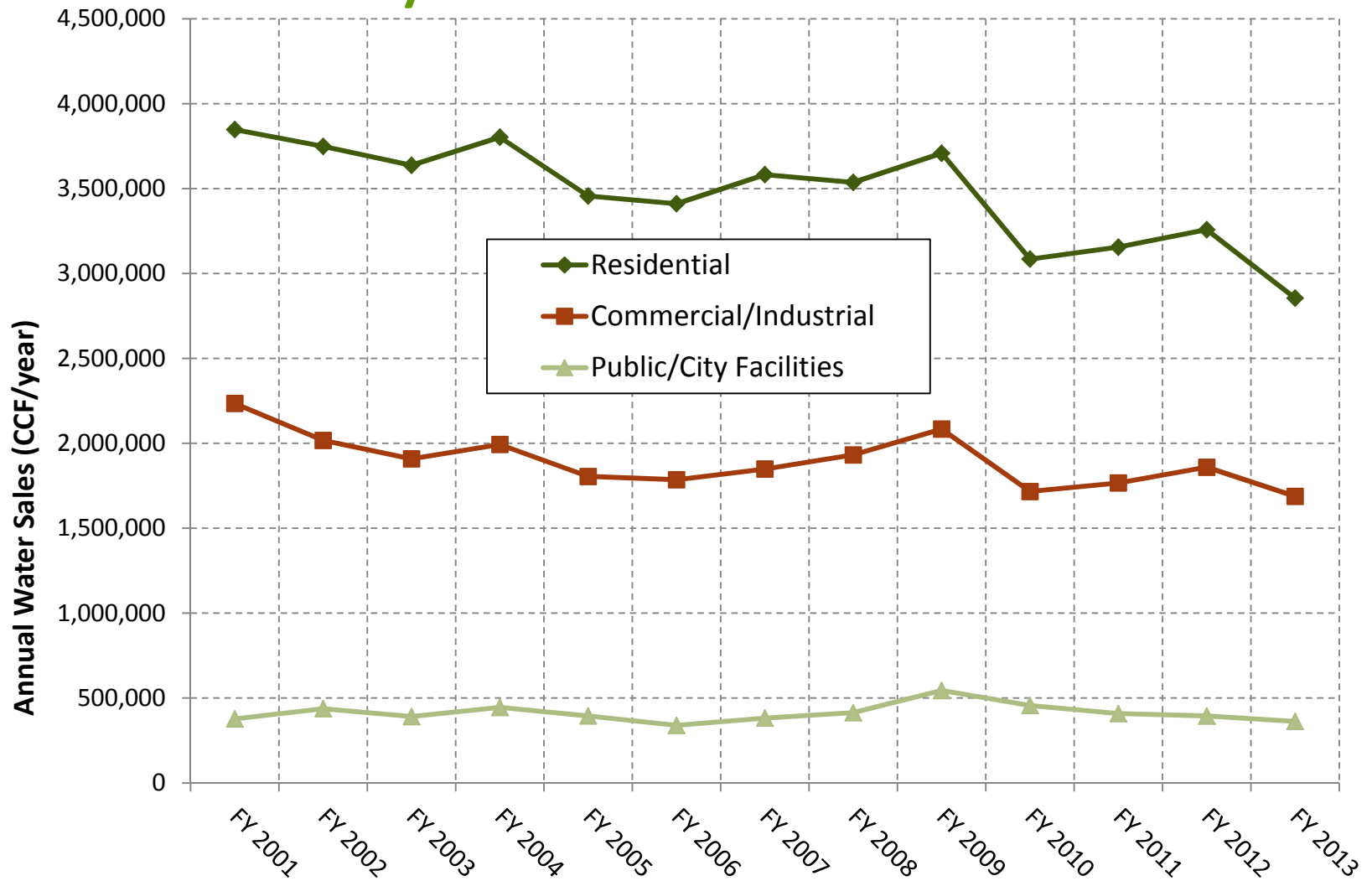


Source: Emergency Water Supply and Storage Project EIR, 2007

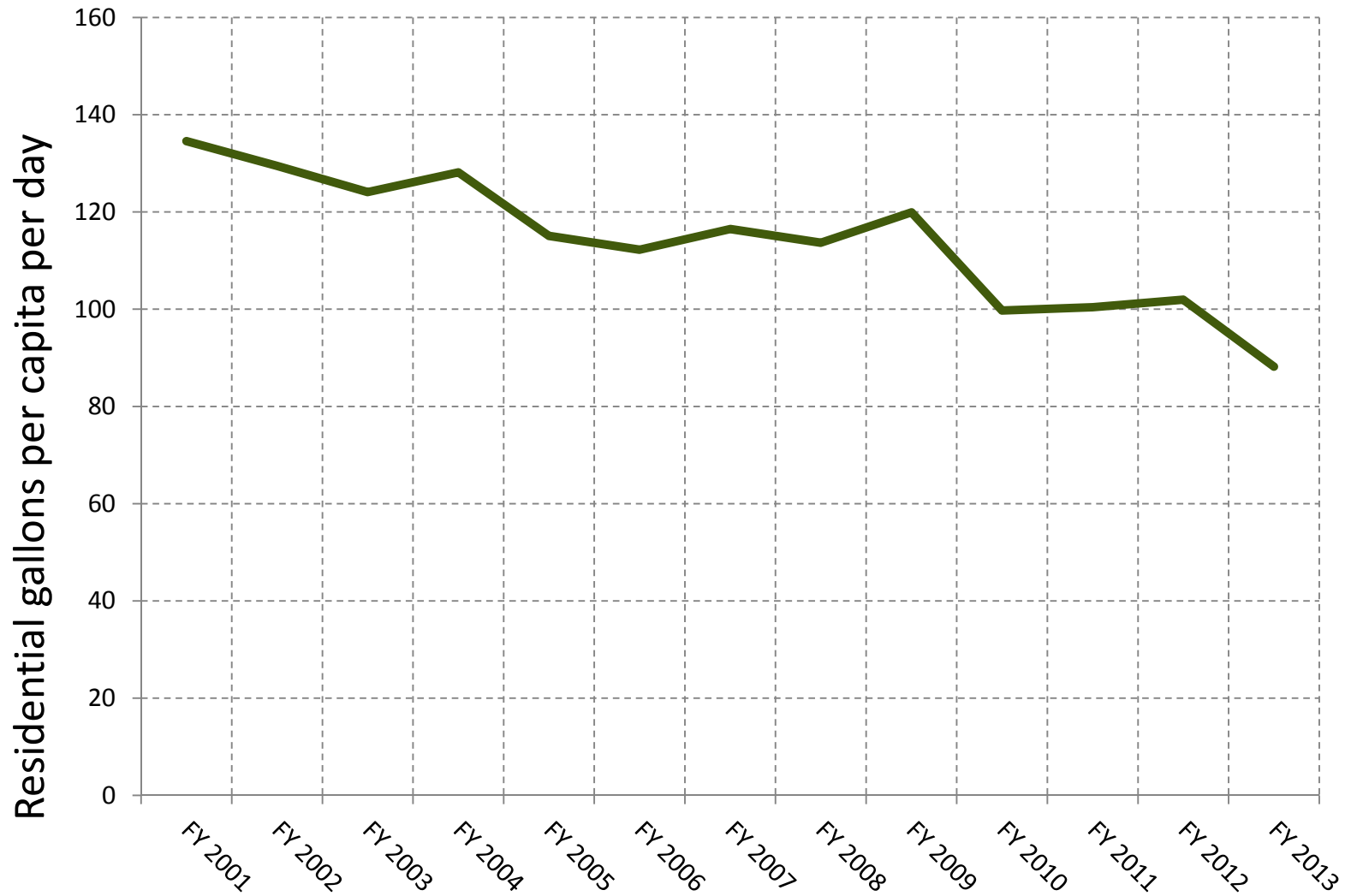
# Local Supply - Recycled Water



# Palo Alto Water Sales by Customer Class

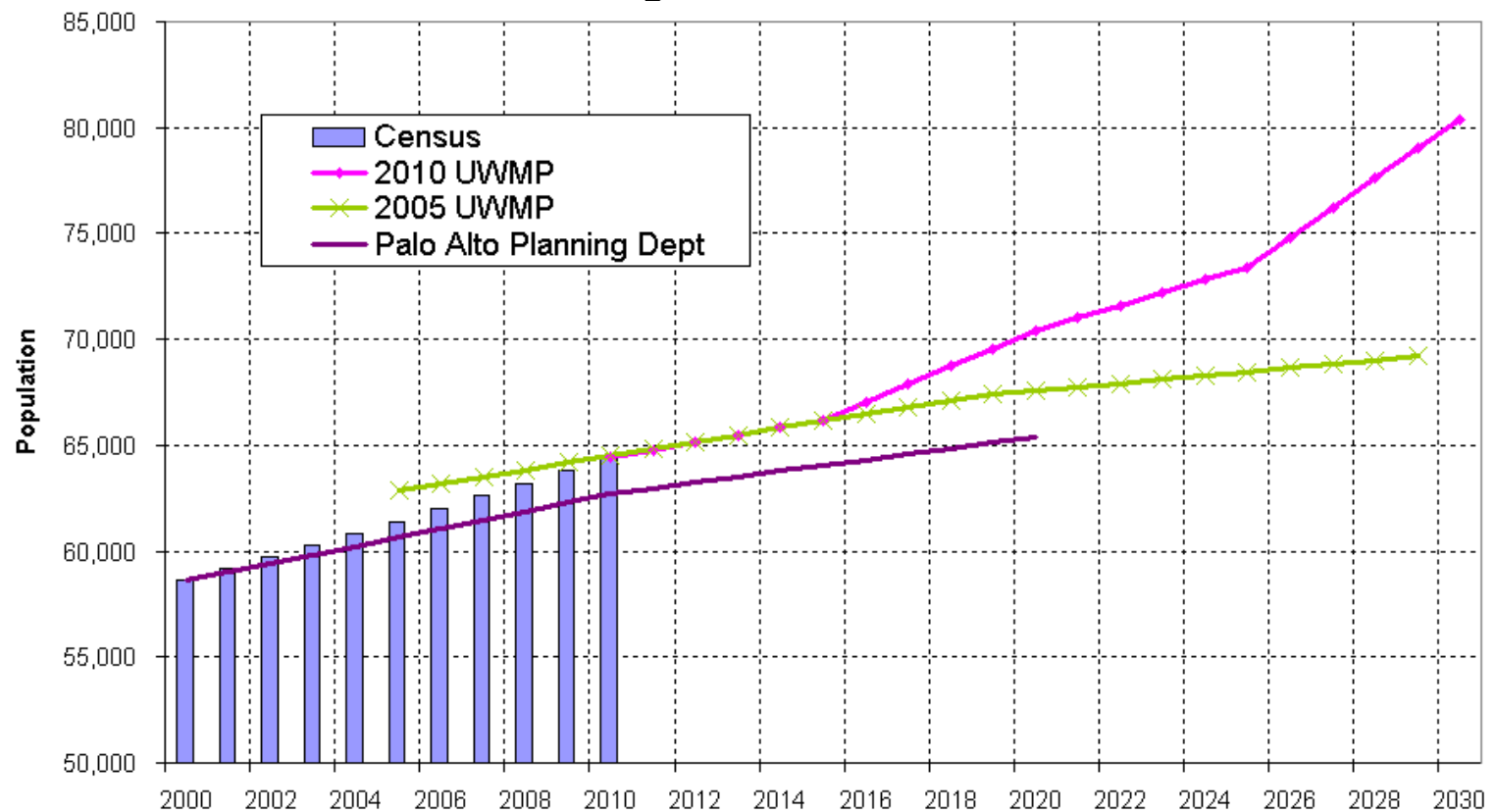


# Palo Alto Residential Per Capita Water Sales

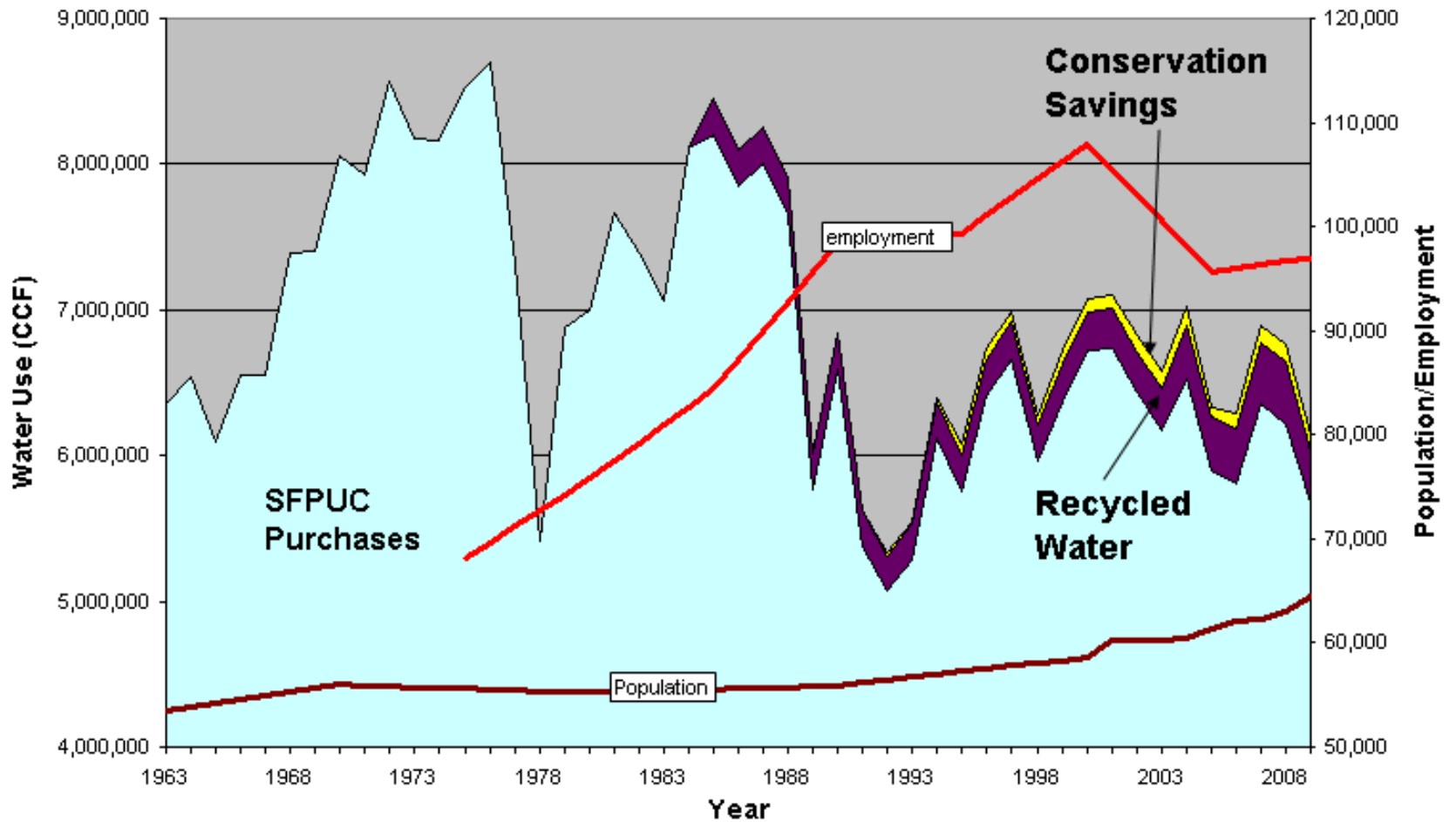




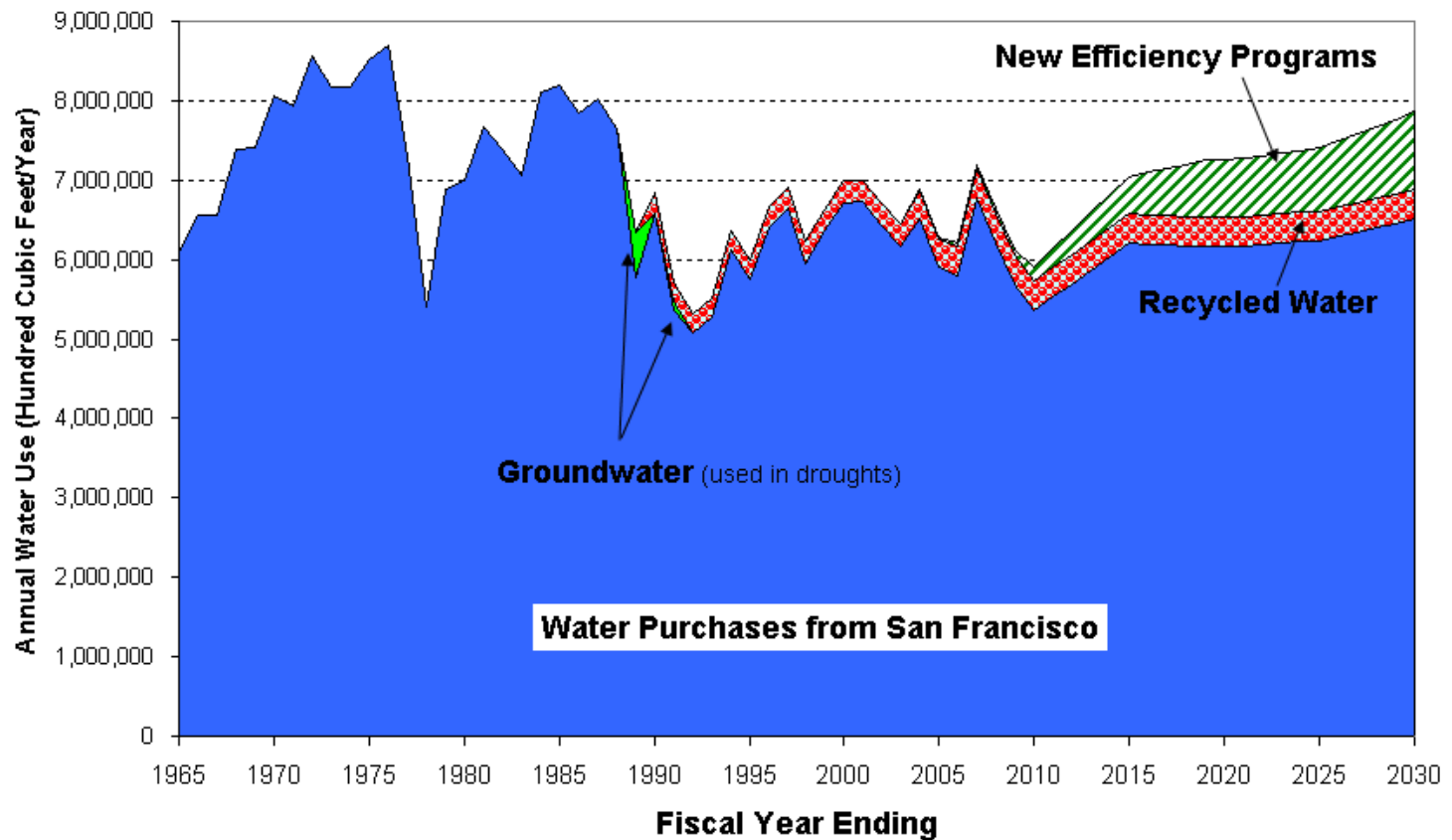
# Future Demand Forecast Influenced by Population Projections



# Water Use & Demographics



# Future Water Resources



# Water Supply Situation

- **Jan 17** – Governor Brown - 20% statewide
- **Jan 28** – Santa Clara Valley Water District (SCVWD) - 10% percent
- **Jan 31** – San Francisco Public Utilities Commission (SFPUC) - all customers of Hetch Hetchy Regional Water System - voluntarily curtail water consumption by 10%
- **Feb 25** – SCVWD – 20%
- **Mar 3** – SFPUC – 10%
- **April 15** – SFPUC – update & “final”

# Water Shortage Contingency Plan

(from Palo Alto's 2010 Urban Water Management Plan)

The City's primary response to a water supply shortage will be to reduce consumption. The four water supply shortage stages are:

1. **Stage I (5% to 10% supply reductions):** low level educational outreach and enforcement of the permanent water use ordinances.
2. **In Stage II (10% to 20%):** stepped up outreach effort and the adoption of additional water use restrictions. Drought rate schedules will be implemented.
3. **Stage III (20% to 35%):** increased outreach activities and additional emergency water use restrictions. Drought rates in each block would increase from those in Stage II. Fines and penalties would be applied to users in violation of water usage restrictions. In some cases, water flow restriction devices would be installed on customers' meters.
4. **Stage IV (35% to 50%):** requires very close management of the available water supplies. Allocations of water for each customer will be introduced. Informational outreach activities would be operating at a very high level. Severe water use restrictions and a restrictive penalty schedule would be implemented.

# STAGE I: Minimum Water Shortage – 5% to 10% target water savings

The SFPUC requested voluntary reductions in this range in 1987, and again in 2009, which the City was able to achieve. In those years, SFPUC did not impose rationing.

## 1. Information Outreach and Audit Programs

- Ongoing informational outreach and audit programs focused on water saving information.
- A low level media information campaign would begin with the emphasis on reducing waste.
- Enforcement of permanent water use ordinances on an “as reported” basis and mostly via reminder notices.

## 2. Incentive-based Demand Side Management Programs

- DSM programs continued and augmented to provide the savings required
- Monitor programs being developed by other utilities in order to take advantage of regional momentum and shorten internal development time.

## 3. Drought Rate Structures

- No special drought rate structure since standard residential rate structure already encourages conservation by having a relatively small fixed charge and increasing block rates based on water consumption.

# Water Use restrictions are added for Subsequent Water Shortage Stages

(from Palo Alto's 2010 Urban Water Management Plan)

- Stage II: Restrictions added for landscape irrigation and restaurants may serve water only upon request.
- Stage III: Nine more restrictions related to:
  - Use of potable water for cleaning, in decorative fountains or pond, at commercial car washes, and on golf courses.
  - Water shortage emergency signage.
  - Outdoor water use audits for customers using more than target allotments.
- Stage IV: Seven additional restrictions related to:
  - Limitations on new water service connections, landscaping at new construction sites, and vehicle washing.
  - Prohibition on turf irrigation and irrigation by sprinklers.
  - Conversion of once-through cooling systems to recycling systems.

## Existing Permanent Water Use Regulations (from Palo Alto's 2010 Urban Water Management Plan)

- **Flooding or runoff** of potable water prohibited
- **Shut-off valves** required for hoses used to wash vehicles, sidewalks, buildings, etc.
- **If recycled water available**, potable water for construction uses prohibited
- **Broken or defective** plumbing and irrigation systems must be repaired or replaced within a reasonable period.



# Water Efficiency Programs

## Rebates

- Toilets & Urinals
- Clothes Washers
- Landscape Conversion
- Irrigation Upgrades
- Food Service Equipment
- Custom Rebates
- New Construction
- Meters & Submeters
- Graywater

## Free Services

- Indoor Audits
- Landscape Audits
- Toilets & Urinals
- Direct Install Measures
- Conservation Devices
- Outreach Materials
- Workshops
- Home Water Reports
- Landscape Water Budgets

# What the City is doing

- **City Facilities Improvements**
  - most have high-efficiency toilets, faucets & showerheads
  - staff identifying locations for replacing turf with more water-wise landscaping
- **Golf Course Improvements**
  - major reconstruction with water-saving improvements
- **Grant Projects**
  - applied for SCVWD grants (\$100,000) to:
    - improve water use monitoring at City facilities
    - provide water use reports for businesses  
(similar to those now provided to residents)
- **Continued partnership with the SCVWD**
  - residential and business free water audits, free devices and newly increased rebate levels.

# What Customers Can Do

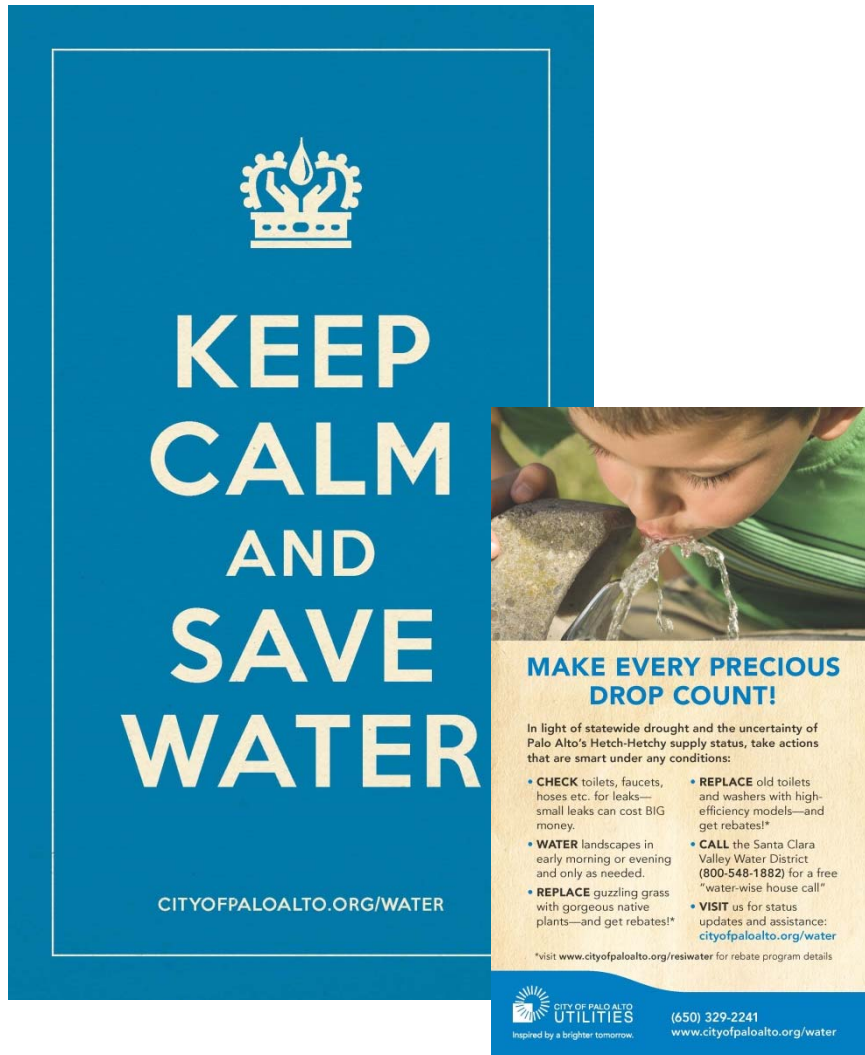
- **Easy actions**
  - Find and fix leaks
    - Running toilet? \$80/month Leaking irrigation hose? \$160/month
  - Don't rinse recyclables---shake and toss
  - Reset sprinkler timers---especially when it *does* rain!
  - Adjust sprinklers to avoid all runoff
  - Modify behaviors – e.g. avoid letting faucets run needlessly or taking extra-long showers
- **Call us to get:**
  - Free home or business water audits
  - Free devices (showerheads, aerators, leak tablets)
  - Free installation (for businesses—high-efficiency toilets)
  - Bigger rebates now for actions like:
    - installing a high-efficiency toilets
    - getting a more efficient washer
    - replacing guzzling grass with beautiful beds of water-efficient plants
- **Join the Great Race to Save Water** on April 19<sup>th</sup>

# Getting the Word Out

- **Social Media** (Twitter, Facebook, NextDoor)
- **Bill inserts and messages**
- **Print, Video & Cable TV Ads:** e.g. PA Weekly inserts
- **Palo Alto Neighborhood** groups: email blasts & meetings
- **Large commercial customer** email blasts & meetings
- **Media Alerts** --local print/broadcast outlets, Chamber of Commerce etc.
- **Workshops, training, events** – residents, professionals
  - Irrigation Basics, Lawn Removal, Composting
  - Great Race for Saving Water – April 19

[www.cityofpaloalto.org/water](http://www.cityofpaloalto.org/water)

# Outreach Communication Examples



**KEEP CALM AND SAVE WATER**

**MAKE EVERY PRECIOUS DROP COUNT!**

In light of statewide drought and the uncertainty of Palo Alto's Hetch-Hetchy supply status, take actions that are smart under any conditions:

- **CHECK** toilets, faucets, hoses etc. for leaks—small leaks can cost BIG money.
- **REPLACE** old toilets and washers with high-efficiency models—and get rebates!\*
- **WATER** landscapes in early morning or evening and only as needed.
- **CALL** the Santa Clara Valley Water District (800-548-1882) for a free "water-wise house call"
- **REPLACE** guzzling grass with gorgeous native plants—and get rebates!\*
- **VISIT** us for status updates and assistance: [cityofpaloalto.org/water](http://cityofpaloalto.org/water)

\*Visit [www.cityofpaloalto.org/resiwater](http://www.cityofpaloalto.org/resiwater) for rebate program details

**CITY OF PALO ALTO UTILITIES**  
Inspired by a brighter tomorrow. (650) 329-2241  
[www.cityofpaloalto.org/water](http://www.cityofpaloalto.org/water)



## Saving Water Checklist for Kids

**Inside:**

- Ask your parents to install aerators on every faucet. An aerator can save as much as 1 gallon every time you use the faucet.
- Wash only full loads in your washing machine.
- Look and listen for drips and leaks from faucets, showers, toilets and pipes.

**Bathroom:**

- Take a short shower instead of a bath
- Don't use the toilet as a garbage can—paper in your toilet. The rest belongs
- When you brush your teeth, turn the faucet off when you're not using the water.
- Ask your parents to install low-flow showerheads and low-flush toilets. Visit [www.cityofpaloalto.org/water](http://www.cityofpaloalto.org/water) for info about free fixtures or rebates.
- Put dye tablets or food coloring in your toilet tank and wait to see if the color appears in the bowl without flushing. If it does, you have a leak!

**Outdoors:**

- Wash your car on the lawn where water doesn't go to waste. Or take your car to a carwash where they usually use recycled water.
- Wash your pets on the lawn—try to find a dry spot that needs water!
- Sweep your driveway or sidewalk with a broom instead of using a hose to spray it.

**Landscape:**

- Water your lawn and plants before 10am or after 6pm to avoid evaporation during the hottest hours of the day.
- Make sure your sprinklers are off during and after a rainstorm.
- Don't overwater your plants.
- Watch out for broken sprinklers, open hydrants, broken pipes, and any other water leaks in your community.
- Ask your parents to replace unused lawn areas with beautiful native plants or another type of ground cover that doesn't use much water.

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(650) 329-2479

# Outreach Communication Examples

**PALO ALTO'S DELICIOUS WATER**  
**WATER**

MAKES AN AMAZING JOURNEY TO GET TO YOUR TAP.  
 As the recent Rim Fire near the Hetch-Hetchy reminded us, many factors can influence our water supply.

**PLEASE USE IT WISELY**



This year and every year it pays to use water as efficiently as possible. And we'll pay you to take actions that qualify for rebates. Contact us for more information.  
 Water conservation programs are provided in partnership with Santa Clara Valley Water District.


**—Catherine Elvert,**  
 Utility Account Representative,  
 Water Programs



Individuals with disabilities who require accommodations to access City facilities, services or programs, or who would like information on the City's compliance with the Americans with Disabilities Act (ADA) of 1990, may contact the City's ADA Coordinator at (650) 329-2241, ext. 3100 or email [ada@cityofpaloalto.org](mailto:ada@cityofpaloalto.org).  
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**WATER BUDGET DRAINING YOUR BOTTOM LINE?**

Landscape irrigation may make up the bulk of your business water use. Yet the money you're paying for water might literally be going down the drain! Inefficient irrigation schedules, broken or malfunctioning sprinklers and water-thirsty plants can quickly cause your utility costs to rise.

**Let us help you stop draining your bottom line with FREE irrigation surveys, landscape workshops and rebates.**

**TURN OVER** for ideas you can act on right now! You can also visit us online or call for details on how you can save water and **START IMPROVING YOUR BOTTOM LINE TODAY!**

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