

GreenTown Los Altos Water Stewardship Program

Joe Eyre
January 18, 2011

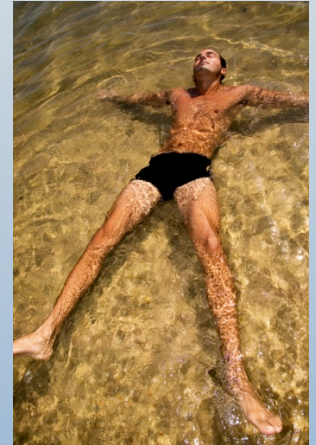


Why should we care about water?



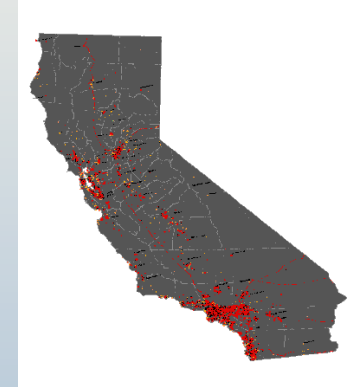
Water: Think about it

- **Water is vital for life – no substitute**
- **Although 70% of earth is covered by water, only 0.7% of the world's water is usable freshwater**
- **Water resources are unevenly distributed compared to the population (Southern California, Middle East, etc.)**
- **Unlike oil, water cannot be sustainably and economically transported from one location to another.**
- **Uncertain water supplies inhibit growth and business**
- **Water is a “local” issue that we must solve.**



California saying: “Whiskey is for drinking and water is for fighting.”

California's challenge: More people, same amount of water

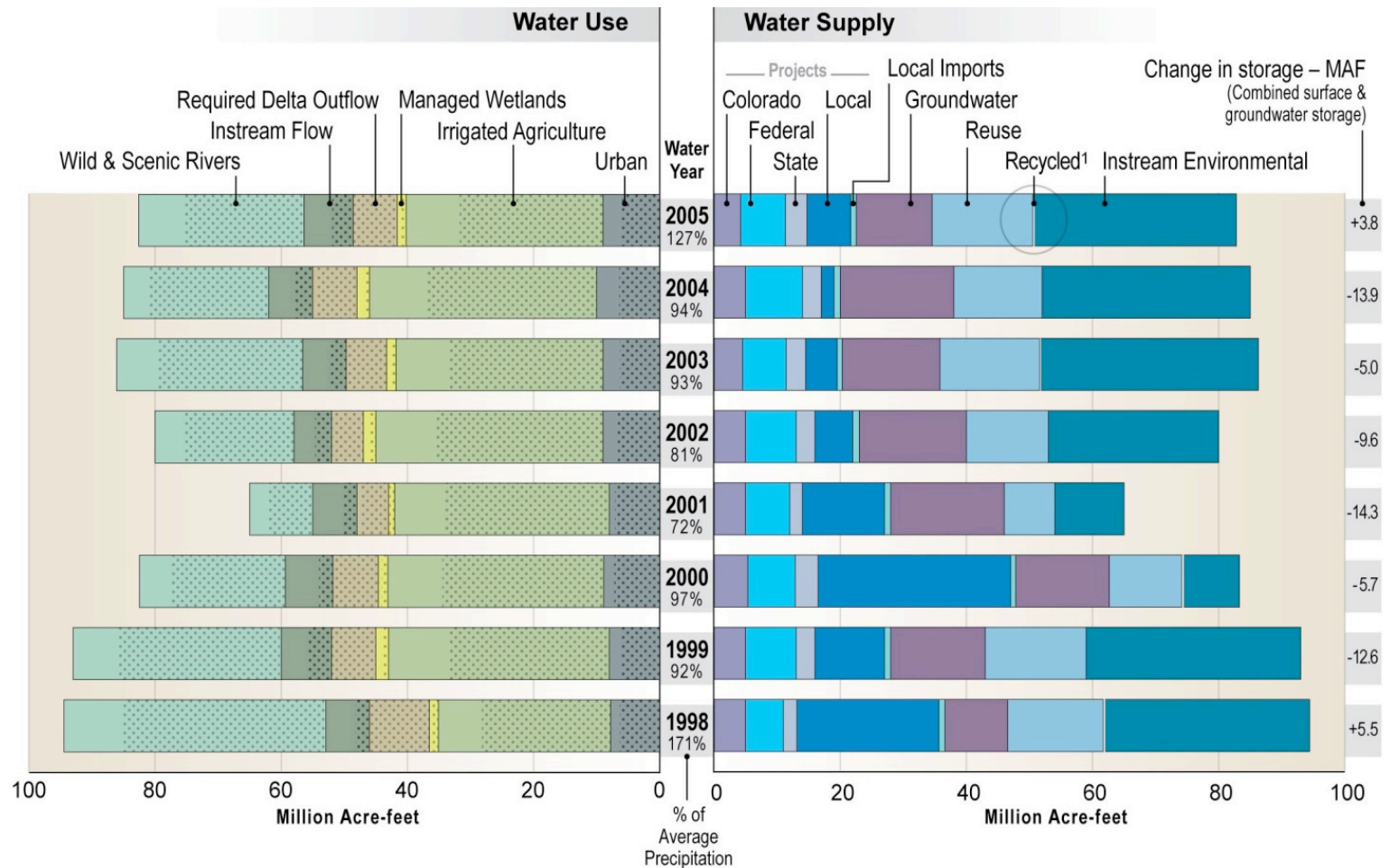


	Today	2050 Scenario 1	2050 Scenario 2	2050 Scenario 3
Population	35 M	44M	59M	70M
Increase		20%	63%	90%
Available Water	Approx. 80 million Acre Feet (or less depending on climate change)			
AF/person	2.3	1.8	1.4	1.1
Gal/person	744,802	592,456	441,832	373,468
Reduction		21%	41%	50%

Source: Cal. Dept. of Water Resources



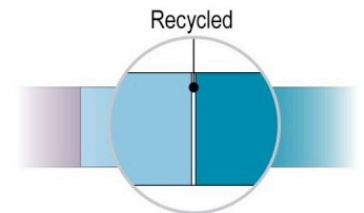
Competing uses of water



Source: Cal. Dept. of Water Resources

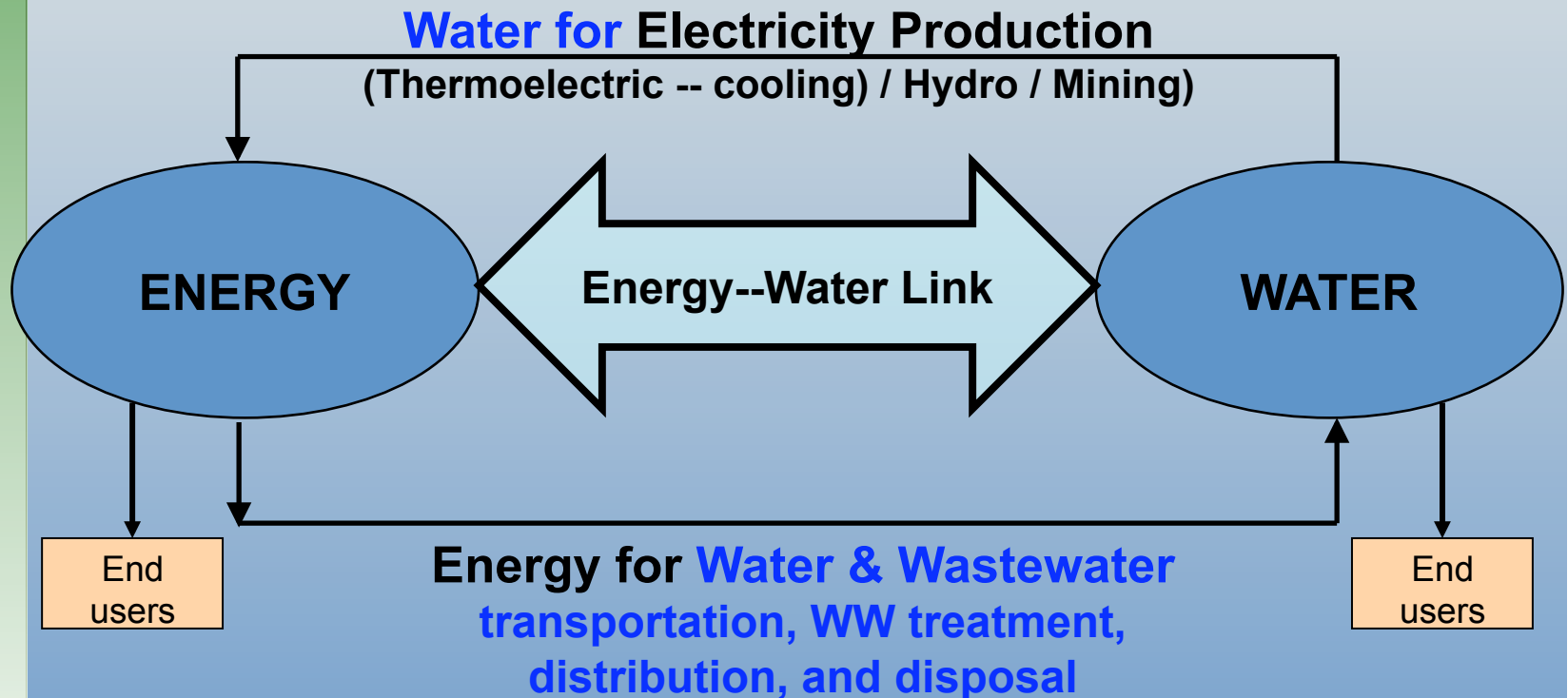
Stippling in bars indicates depleted (irrecoverable) water use (water consumed through evapotranspiration, flowing to salt sinks like saline aquifers, or otherwise not available as a source of supply)

¹ Detail of bar graph: For water years 1998-2005, recycled municipal water varied from 0.2 to 0.5 MAF of the water supply.



Water and Energy Linkage

US Department of Energy: Electricity production from fossil fuels and nuclear energy requires 190,000 million gallons of water per day, or 39% of all freshwater withdrawals in the nation.



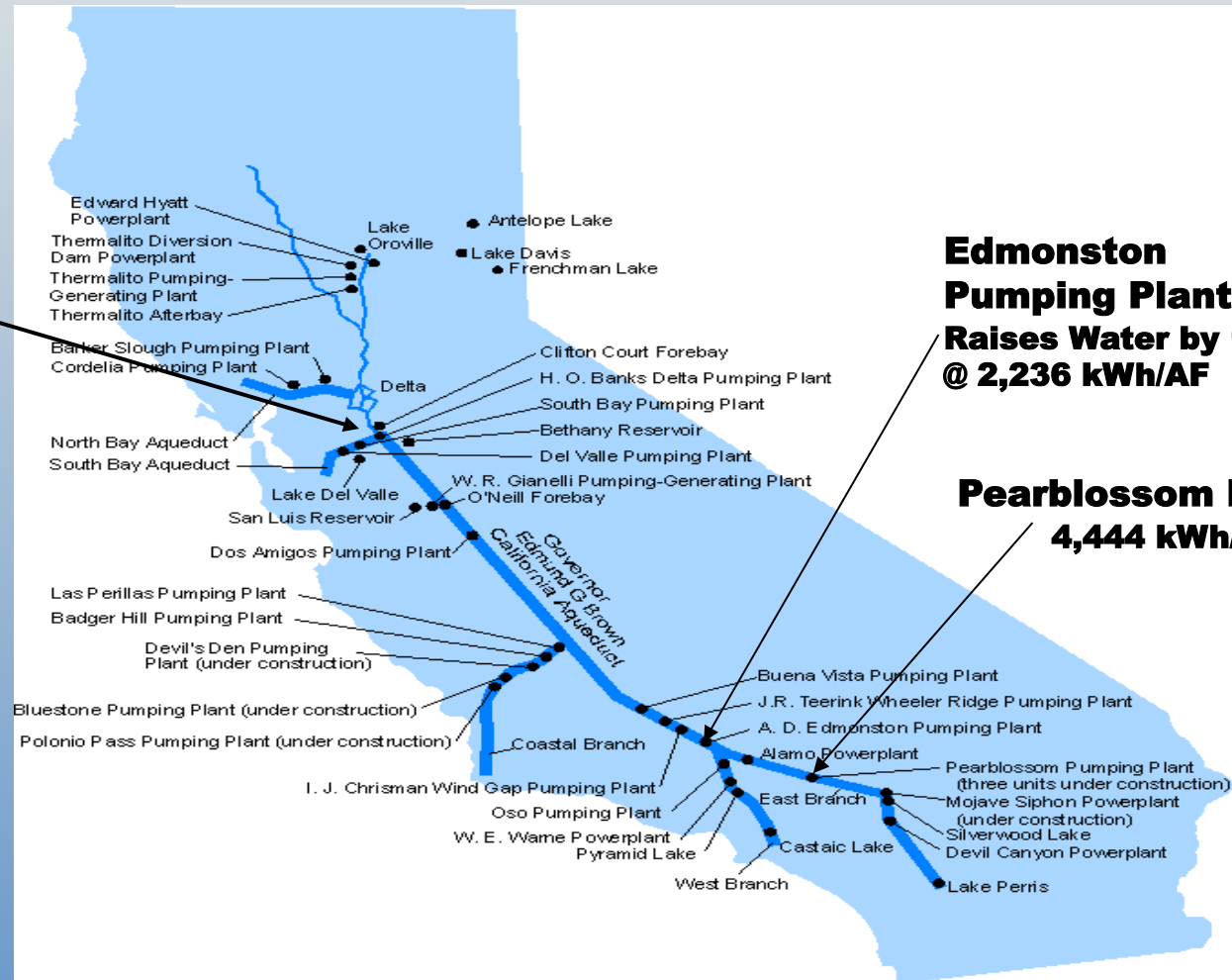
California Energy Commission: Water-related energy use consumes 19 percent of the state's electricity, 30 percent of its natural gas, and 88 billion gallons of diesel fuel every year.

State Water Pumping Facilities

**H. O. Banks
Pumping Plant**

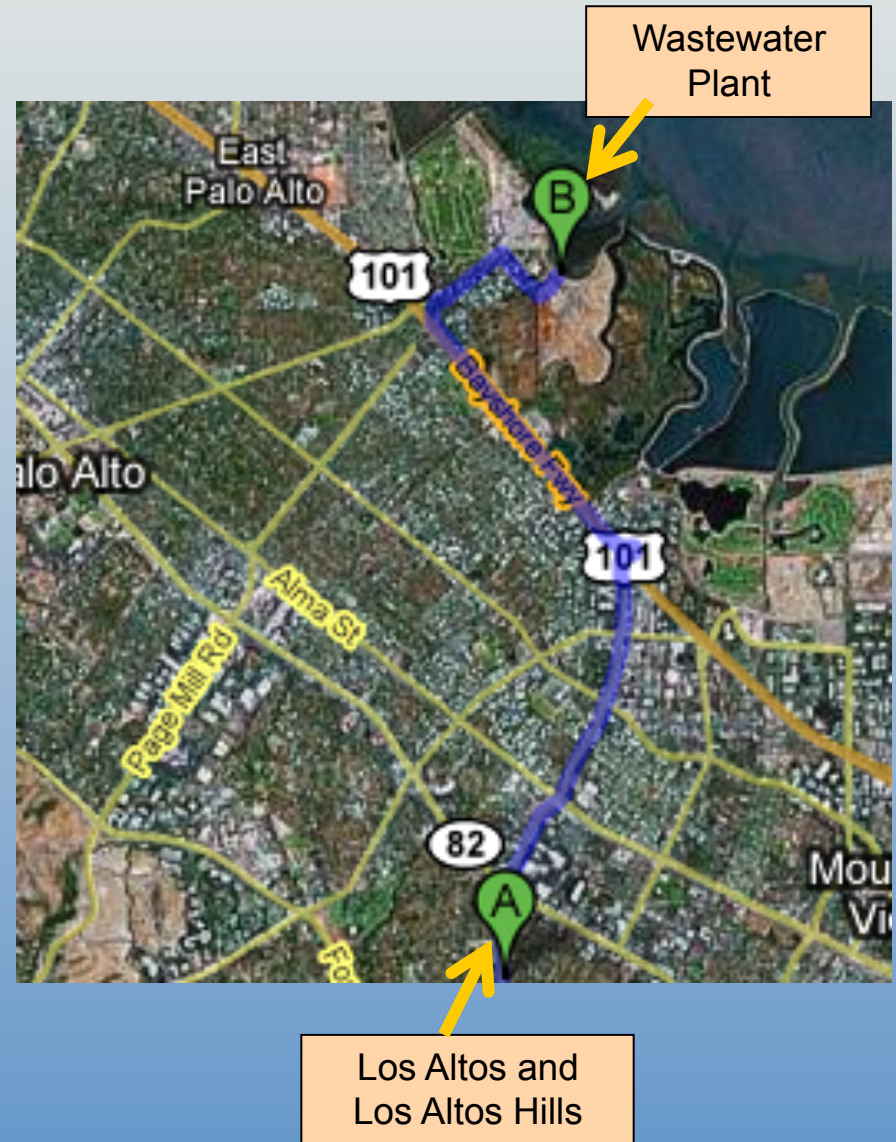
**Edmonston
Pumping Plant
Raises Water by 1926'
@ 2,236 kWh/AF**

**Pearblossom P/P
4,444 kWh/AF**

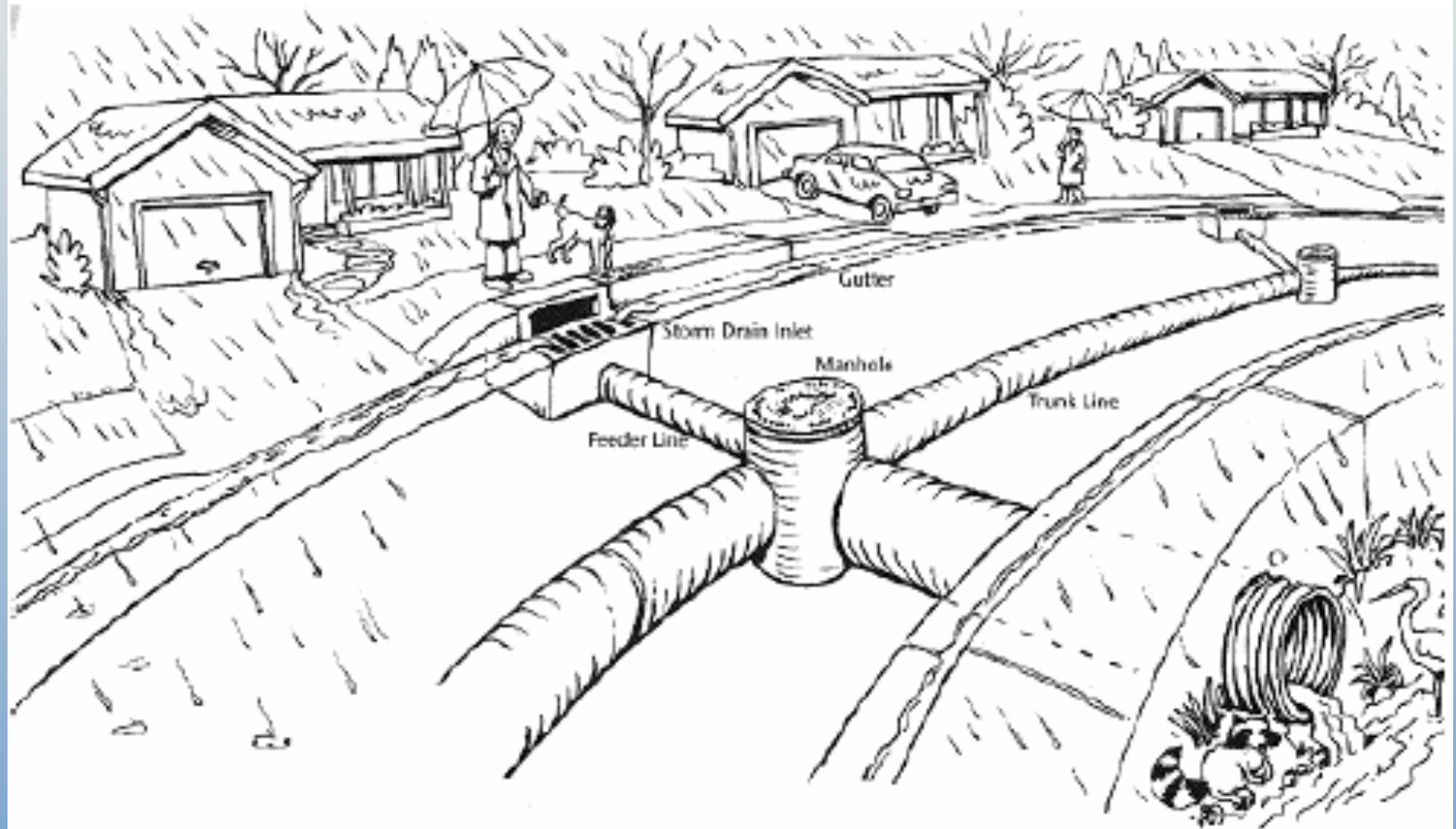


Regional Wastewater Plant – Palo Alto

- Largest energy-user in Palo Alto
- Processes 22 million gallons/day - Los Altos/ Los Altos Hills provide 12%
- Recycles about 1% for irrigation
- Rest flows into the bay.
- Contaminants – such as mercury and copper – cannot be removed



Storm Drains flow to Creeks



"Stormwater runoff is the toxic brew of oil, fertilizers and trash picked up by rain and snowmelt as the water flows over parking lots, roofs and subdivisions."

- CBS News Report, Oct. 16, 2008

Water in our communities

- **Los Altos and the southern 1/3 of Los Altos Hills:**
 - Water is from CalWater
 - Approx 32% from wells in Los Altos. Remainder from County reservoirs and the Delta
 - 2005: Water usage per household approx 194,173 gallons/year or 532 gallons/day
 - Outdoor usage estimated to be 50% of total
- **Northern 2/3 of Los Altos Hills and Foothill College:**
 - Approx. 2,000 households
 - Water provided by Purissima Hills Water District
 - All water from Hetch Hetchy
 - 2009: Water usage per household approx. 305,932 gallons/year or 838 gallons/day
 - Outdoor usage estimated to be 80% of total



Water Stewardship program focus

1. ***Water Conservation:*** Ensure a continued high quality of living in our communities.

- Water use - and its associated energy
- Amount of water sent to wastewater treatment plant

2. ***Pollution Reduction:*** Protect our local streams and the bay which are essential to the local environment.

- Non-point source water pollution (e.g., irrigation and wasteful water).
- Chemicals and salinity in the wastewater (e.g. toxins, pharmaceuticals, painkillers, perfumes, fire retardants, caffeine, birth control hormones, cholesterol etc.)



Program goals



1. Reduce per capita water use in our communities
2. Work with our city governments to encourage reduction of municipal and resident water use
3. Instill water awareness and stewardship in our communities

2011 program focus



1. Primary:

- Two talks/events this year
- One or two creek clean-ups
- Support the Los Altos History Museum water exhibit

2. Other:

- Web site information
- Work with water retailers on usage goals and programs
- Coordinate with cities for water reduction
- Develop contest(s) to recognize water stewardship



- ***Volunteers Needed! Water group meeting 1/25, Room 2, Hillview center at noon.***