

Districts and Recharge

April 8, 2009

*Upper Verde River Watershed Protection
Coalition
Safe-yield workgroup*



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State	Groundwater Rules				Groundwater Districts	
	Capture	Reasonable Use	Correlative Rights	Prior Appropriation	State Control	Local Control
Arizona		X			X	
California			X			X
Colorado				X	X	
Florida		X			X	X
Idaho				X	X	
Kansas				X	X	X
Nebraska		X		X		X
Nevada				X		
N. Mexico				X	X	
N. Dakota				X		
Montana				X	X	
Oregon				X	X	
S. Dakota				X		
Texas	X					X
Utah				X		
Washington				X	X	
Wyoming				X	X	



Case

Upper San Pedro Water District

Upper San Pedro Partnership

- Formed in 1998
- 21 local, state, federal, private org's
- Implement policies & projects to ensure adequate water



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Upper San Pedro Water District

- *HB 2300 passed in 2007 (Rep. Burns)*
- *Establishes under Title 48, Ch. 37*
- *Shall be established with a specific water resource goal*
- *District may be established by an election*
- *AZ Public Improvement District*



Upper San Pedro Water District

- *Purpose – Maintain Aquifer & Base Flow Conditions to sustain Upper San Pedro River*
- *At the request of the **Organizing Board**, allows the County Board of Supervisors to place District Formation on Ballot*
- *Tax vote separate from District formation vote*
- *Majority rules*



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Organizing Board

- *7 Members – 5 appointed by Gov., 2 appointed by President of Senate*
- *Electors of Area*
- *Serves until elected Board of Directors begins serving*
- *Must prepare an Organizational Plan*
- *Financial Plan*



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Organizing Board

- *Comprehensive Plan (conservation, recharge, augmentation)*
- *Election Plan for District formation*
- *Public Meeting Laws*
- *County Attorney may advise or represent*
- *Terminated if District not established in 5 years*



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District Board

- *7 Members*
- *2 Classes of Board Members*
- *First Class – 4 year term*
- *Second Class 2 year term*
- *Petitions and elections held*
- *Meets quarterly (minimum)*
- *No compensation*



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District Board

Can. . .

- *Acquire property, easements, R/W*
- *Purchase, operate, construct facilities*
- *Issue Revenue Bonds*
- *Acquire water supplies, rights, recharge, store and deliver*
- *Impose / Collect fees*



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District Board

Can. . .

- *Levy a Transaction Privilege Tax*
- *Receive Loans / Grants from WIFA*
- *Charge / Collect User Fees for Services*
- *Sell wholesale water or water rights*
- *Sell Revenue Bonds*



District Board

Must. . .

- *Update Comprehensive Plan every 10 years*
- *Develop and implement programs that meet District goals*
- *Work with DWR re: their actions*



District Board

Is Prohibited from. . .

- *Selling retail potable water*
- *Requiring well measuring devices*
- *Requiring mandatory conservation*
- *Regulating water use*
- *Regulating land divisions*
- *Exercising eminent domain*
- *Regulating zoning issues*



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HB 2300 Defines Adequate Water Supply as it relates to the District

- *Subdivisions – Adequate Water Supplies*
- *Exemptions to AWS rules*
- *Promotional, Real Estate Commission data*
- *Provisions for denial of Public Reports*
- *Allows for objections / hearings*



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District Finances

- *Can tax up to 50 cents per 1,000 gallons*
- *Paid to Dept. of Revenue*
- *State Treasurer remits to District*
- *Must adopt / adhere to annual budget*
- *Requires public hearings for taxes*



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District Reports

- *Annual Accounting Audit required*
- *District must submit action report to House and Senate which describes:*
 - Projects*
 - Permits*
 - Programs*
 - Finances*
 - Progress*
- *Report must be filed in AZ State Library, Archives & Public Records*



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Santa Clara Valley Water District

- *Manages water resources and wholesales treated water to retailers in Santa Clara County, California*
- *Uses local reservoirs to capture surface water supplies*
- *Imports water via the Sacramento-San Joaquin Delta*



Santa Clara Valley Water District

- *Groundwater management agency in Santa Clara County since the early 1930s as authorized by the California legislature*
- *Relies on groundwater for a significant portion of its water supply*
- *Prepared a Groundwater Management Plan in 2001*

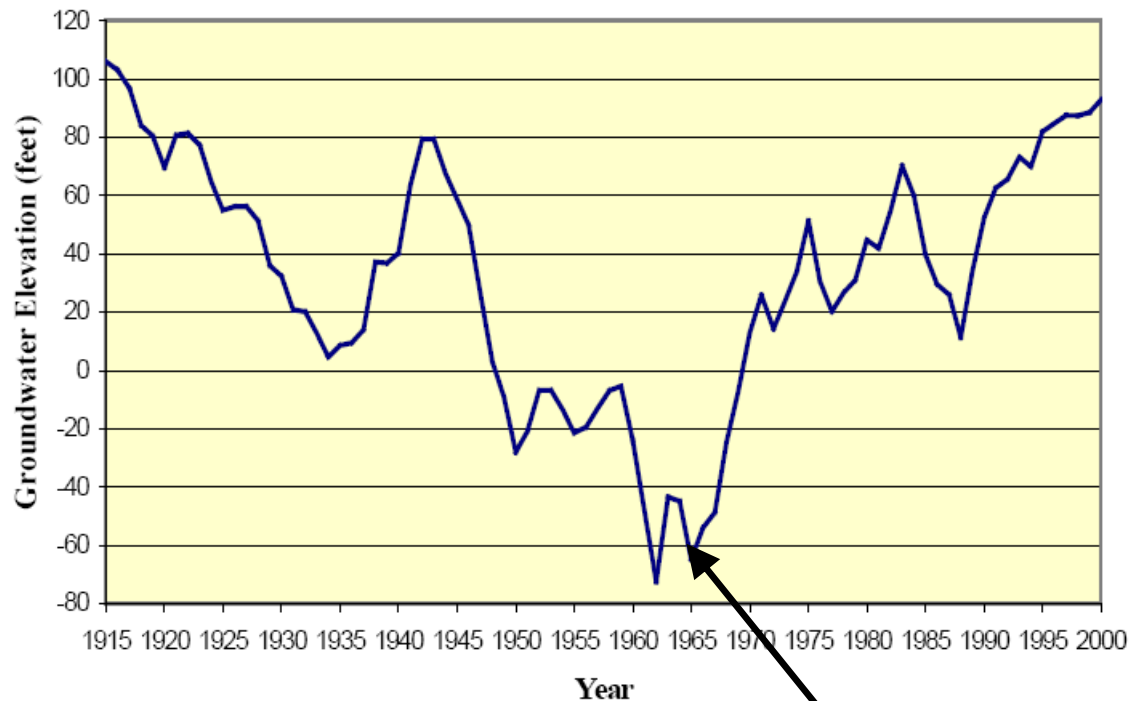


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Santa Clara Valley Water District

Figure 2-4
Groundwater Elevations in San Jose Index Well



Begin Recharge Efforts



Santa Clara Valley Water District

- *Significant decreases in groundwater levels occurred until the mid 1960s*
- *Decreasing groundwater levels lead to land subsidence as much as 13 feet*
- *Imported water from the State Water Project reduced the demand on the groundwater basin and provided water for the recharge of the basin*



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Santa Clara Valley Water District

- *The District augments natural recharge with a managed recharge program to offset groundwater pumping, sustain storage reserves, and minimize the risk of land subsidence*
- *Uses imported and local surface water to supplement groundwater and maintain reliability in dry years*



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Santa Clara Valley Water District

- ***In-stream recharge***
 - ***Accounts for approximately 45 percent of groundwater recharge through District facilities***
 - ***Occurs along stream channels in the alluvial plain, upstream of the drinking water aquifer***
 - ***Can release flow for recharge into 80 of the 90 miles of streams***
 - ***Uncontrolled in-stream recharge accounts for approximately 20 percent of groundwater recharge***



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Santa Clara Valley Water District

- ***Off-stream recharge***
 - ***Accounts for approximately 35 percent of groundwater recharge***
 - ***Includes abandoned gravel pits and areas excavated specifically as recharge ponds***
 - ***Operates 71 off-stream ponds in 18 major recharge systems***
 - ***Locally conserved and imported water delivered to ponds by the raw water distribution system***



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Santa Clara Valley Water District

Neighborhood work

Page Groundwater Recharge System Pond Maintenance

About the project

The Santa Clara Valley Water District will be in your neighborhood performing maintenance on the ponds in the Page Groundwater Recharge System. Sediment is removed annually to sustain the recharge capability of the ponds. This helps replenish the groundwater basin and provide reliable water supply.

Work is expected to start in mid-December and take approximately three to six weeks to complete.* Project work hours are 8 a.m. to 5 p.m., Monday through Friday. In the unlikely event of delays, it may be necessary to extend work hours or schedule some work on Saturdays.

A five- to six-person crew will be working at the project site. Equipment used will include loaders, trucks, a compactor and a sweeper. Typical construction noise can be expected during work hours.

Trucks and crews will access Page Ponds at Hacienda Avenue and Sunnyoaks Avenue. Sunnyoaks Ponds will be accessed from Sunnyoaks Avenue and Waldo Road. Budd Ponds will be accessed from Waldo Road and San Tomas Expressway. No road closures are expected, but traffic control may be needed at times.

Approximate amount of sediment to be removed at pond sites:

- 1 **Budd** 990 cubic yards or 124 dump truck loads
- 2 **Sunnyoaks** 1,175 cubic yards or 147 dump truck loads
- 3 **Page** 700 cubic yards or 88 dump truck loads



Budd, Sunnyoaks and Page Ponds are indicated above by dotted yellow outlines.

* Project start dates and duration may vary due to site conditions and equipment availability.

continued on back..

Santa Clara Valley
Water District



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Sacramento Groundwater Authority

- *Created to manage the Sacramento region's North Area Groundwater Basin*
- *Draws its authority from a joint powers agreement signed by the cities of Citrus Heights, Folsom, and Sacramento and the County of Sacramento to exercise their common police powers to manage the underlying groundwater basin.*



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Sacramento Groundwater Authority

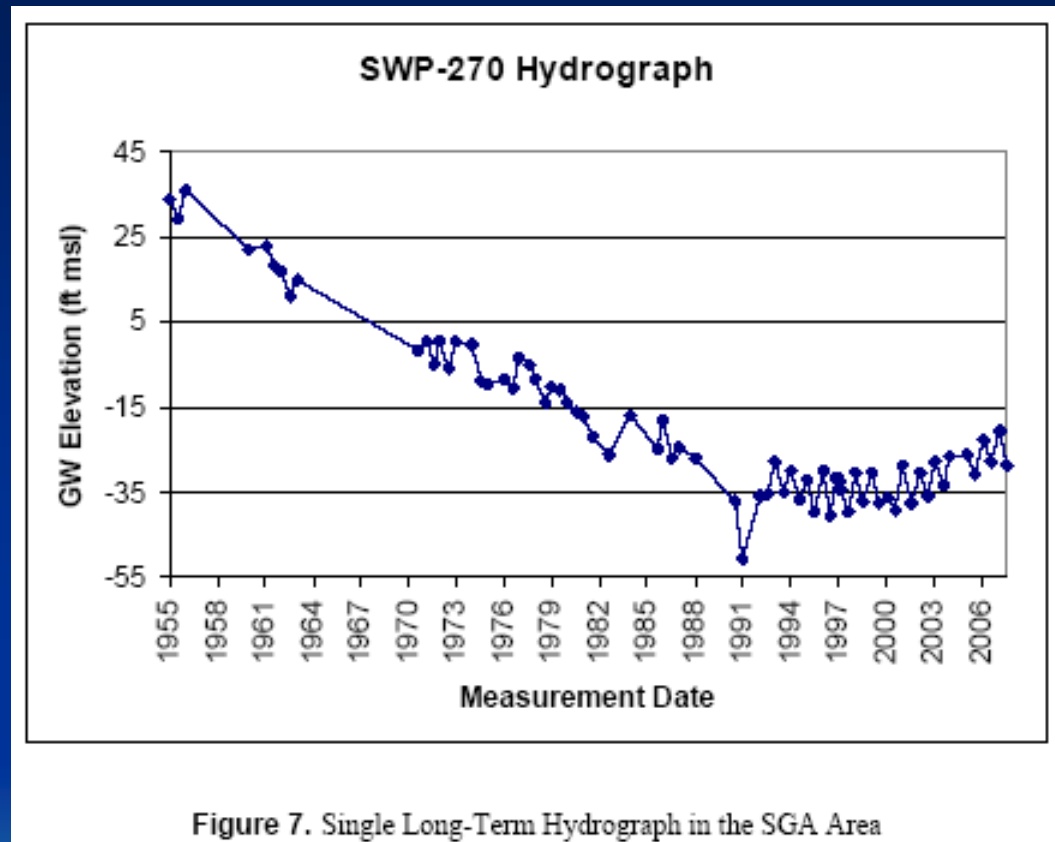
- *Core of management responsibility is a commitment to not exceed the average annual sustainable yield of the basin which was estimated to be 131,000 acre-feet*
- *Created a groundwater management plan updated in December 2008*



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Sacramento Groundwater Authority



Sacramento Groundwater Authority



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Sacramento Groundwater Authority

- *Conjunctive management activities include the planning and construction of facilities to increase the available surface water supply to the area as well as to create opportunities for the banking and exchange of water with partners after local needs are met.*



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Sacramento Groundwater Authority

- *Most of the recharge occurring through current conjunctive use is from in-lieu recharge (i.e., this is recharge that occurs naturally from rivers, streams, and surface percolation by simply reducing groundwater extractions).*



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Sacramento Groundwater Authority

- *Has also embarked upon a Water Accounting Framework to ensure a safe and sustainable water supply for the greater Sacramento region by encouraging water purveyors to “bank” water in the basin, when available, for use during dry periods.*



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Sacramento Groundwater Authority

- *Investigate opportunities for the development of direct recharge facilities in addition to in-lieu recharge (e.g. aquifer storage and recovery wells or surface spreading facilities, through constructed recharge basins or in river or streambeds)*



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Tucson Water

Clearwater Renewable Resource Facility

- *2 large recharge / recovery sites in Avra Valley*
- *Recharge up to 140,000 acre feet of CAP water (nearly all Tucson's allocation)*



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Tucson Water

Pima Mine Road Recharge Project

- *South Tucson near the Santa Cruz River*
- *Joint Project with the State*
- *Capacity to store 30,000 AFY*



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Tucson Water

Pima Mine Road Recharge Project



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City of Prescott

Recharge Project – East of Airport



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City of Prescott

Recharge Project – East of Airport

Vital component to our recharge system and credits

April through September = Allowable Surface Recharge Months (unless Lake Bartlet full)

Lake Conservation Level = 9 feet below spillway

ADWR Underground Water Storage Permit # 71-519567 et al



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City of Prescott

Recharge Project – East of Airport

- Storage for Sundog WWTP
- Modified to include surface waters from lakes 12/1998
- Up to 7,200 AFY permitted storage applied for on 4/29/08
- Recharge rights of 1391 AFY from Lakes
- 20 year duration



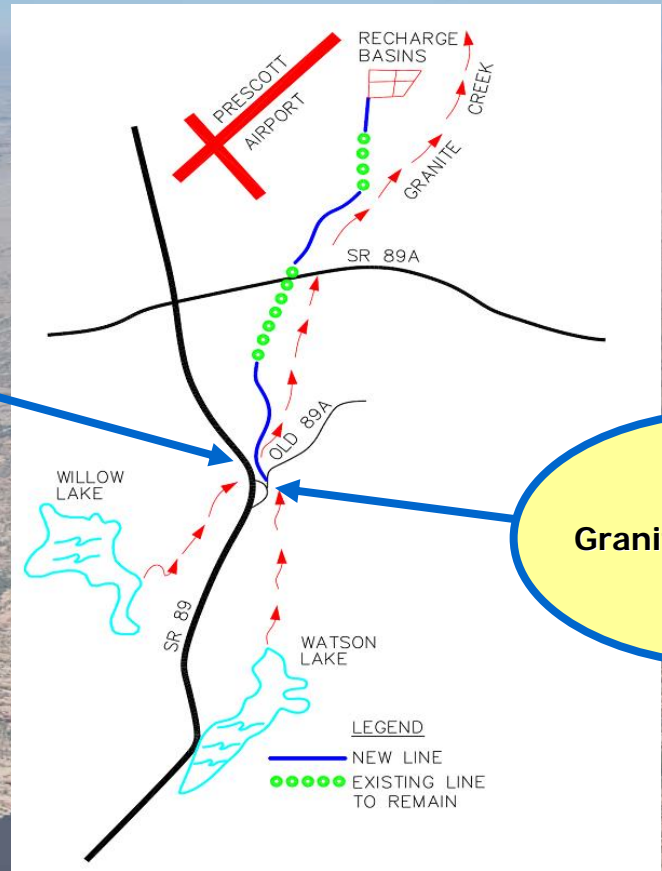
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City of Prescott

Recharge Project – East of Airport

Willow Creek intake



Granite Creek intake



COOP
FLY 1451-52 06-24-08

Thank you



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4/13/2009

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