


City of Paso Robles Water Conservation Program



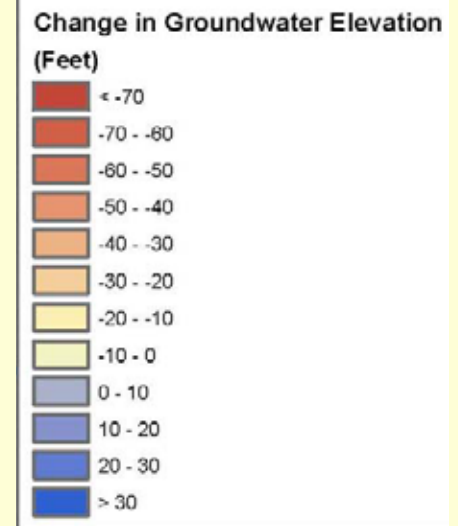
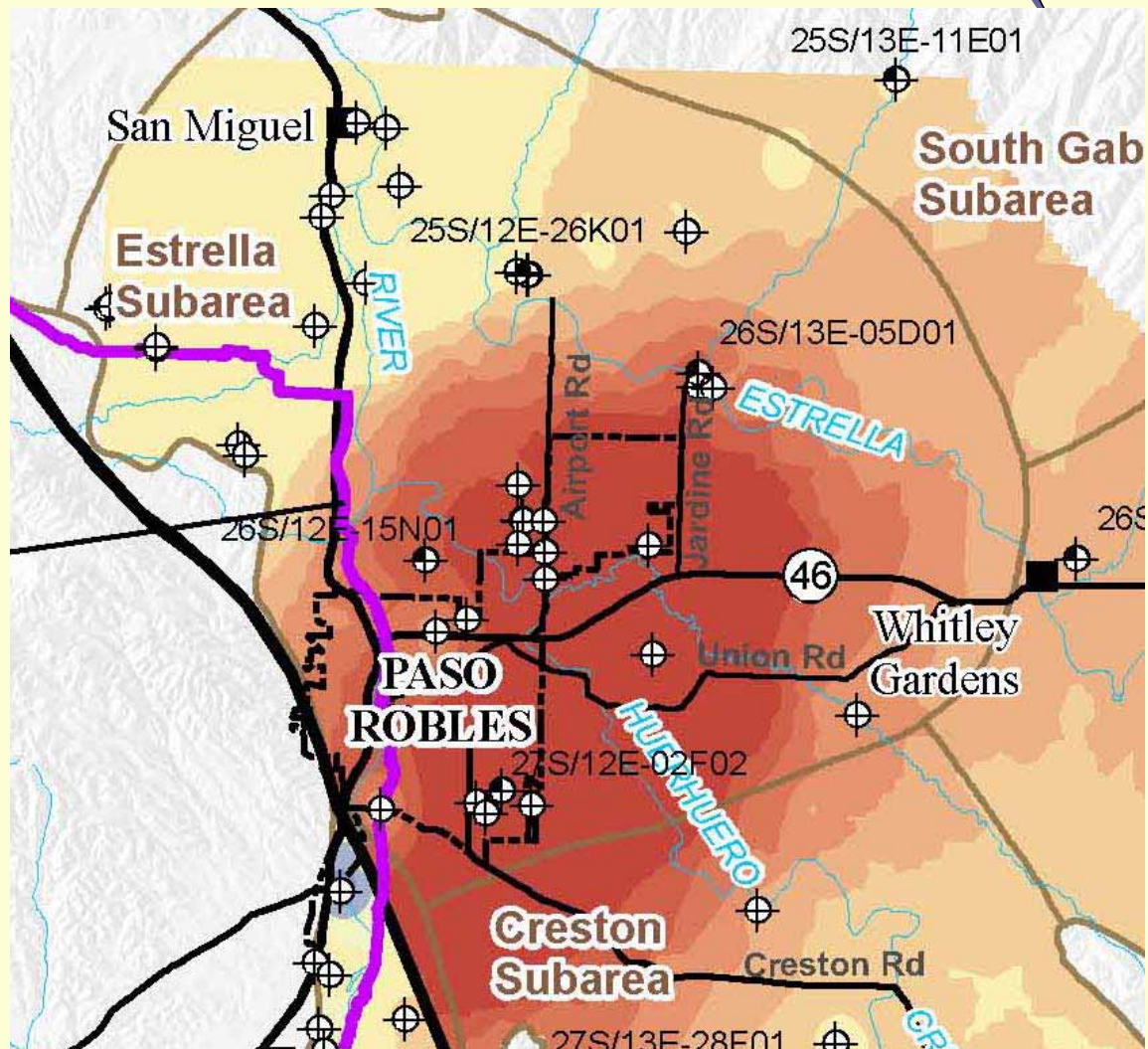
March, 2010

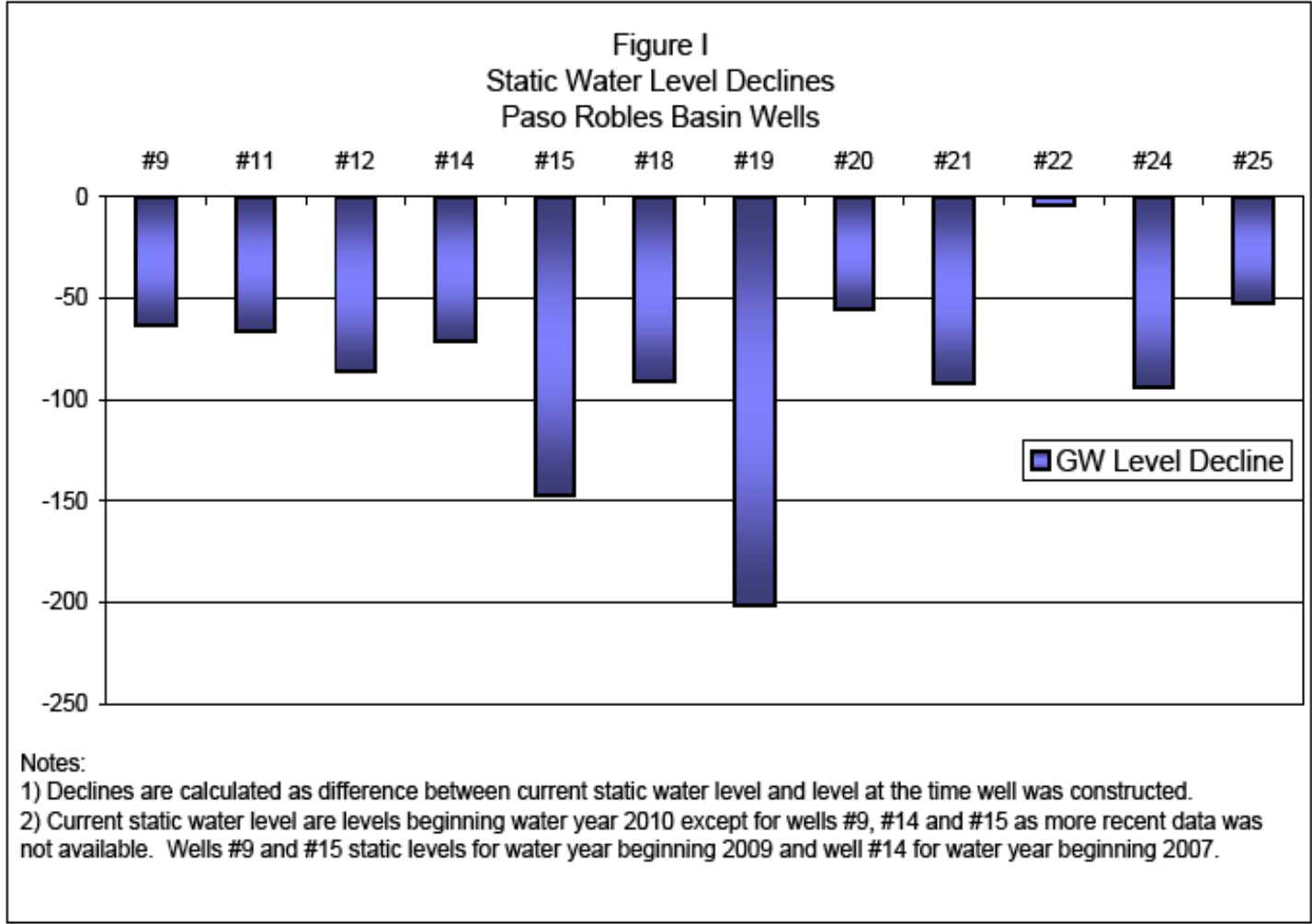


20% Summer Water Supply Shortfall due to Decreasing Well Production

- Increased demand on GW basin
- Lower groundwater levels, well production
- Declining GW Quality (Se, As, Mn)

Estrella Subarea - Change in Spring Groundwater Levels (1997 to 2009)







Managing the Short-term Supply Problem

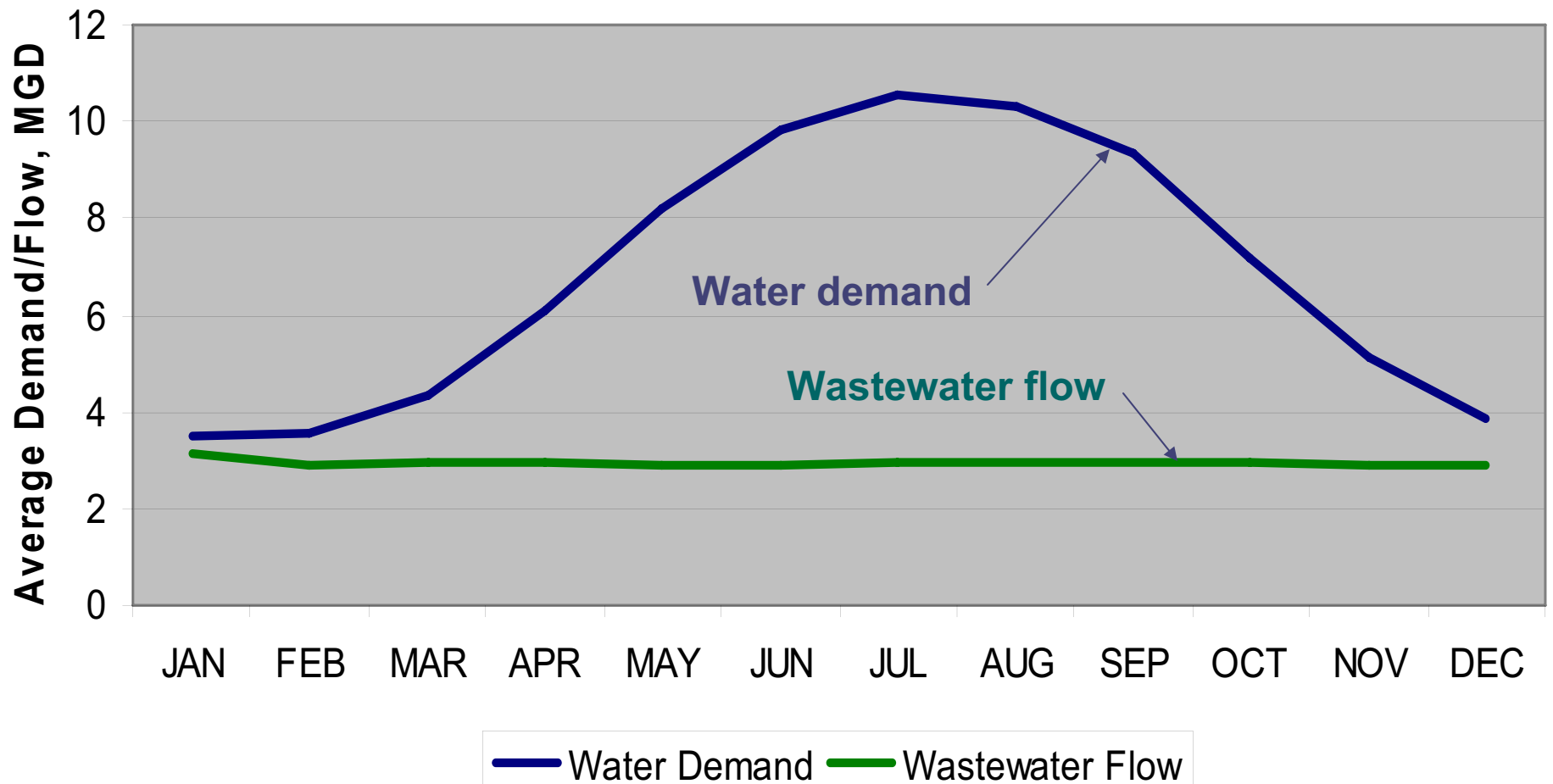
- Mandatory 3-day per week watering, water waste prohibitions enforced
- Intensive outreach on efficient irrigation

Result: 2009 peak demand reduced 20%



Seasonal Water Demand

Paso Robles Water Demand vs. Wastewater Flow



Why Such High Peak Demand?

- Irrigation
- Irrigation
- Irrigation



City of Paso Robles
Watering Schedule - Summer 2009
Pop-Up Fixed Spray Systems

	Normal Year Weekly Run Time (Minutes)	<u>Summer 2009</u> Weekly Run Time (Minutes)
Jan	Turn Off	Turn Off
Feb	Turn Off	Turn Off
Mar	28	14
Apr	57	29
May	67	33
Jun	67	34
Jul	69	35
Aug	66	33
Sep	51	25
Oct	31	31
Nov	20	20
Dec	Turn Off	Turn Off

Additional Watering Tips

- (1) Summer 2009 watering guidelines based on 50 percent of normal year irrigation schedule, average weather conditions and irrigation systems in good repair.
- (2) Adjust the number of minutes depending on soil, irrigation system, and weather conditions.
- (3) For rotating sprinkler heads, consult manufacturer specifications.
- (4) Water during the night or early morning hours to reduce evaporation losses.
- (5) Water no more than 3 days per week according to the schedule for your area.
- (6) Run two or three irrigation cycles per day separated by 30 minutes to avoid water runoff.
 Example: If watering 12 minutes, 3 days per week, use two cycles of 6 minutes each.

Zone 1 (North) Watering Days - Tues., Thurs, Sat. (No watering Mondays)

Zone 2 (South) Watering Days - Wed, Fri, Sun. (No watering Mondays)



Why Mandatory Restrictions?

- Real threat - loss of tank storage, health and safety risk
- Voluntary programs result in only 3-10% savings
- Failure to achieve 20% not an option

Minimal Fines Issued Last Year



Long-term Conservation Program Driving Forces

- State mandate - reduce overall gpcd by 20% by 2020 (99-08 avg. 238 gpcd)
- State water grant and loan conditions
- Demand management plays key role in integrated water resource plan



Long-term Conservation Program Elements

- Education and Outreach
- Incentives (Rebates, water surveys)
- Ordinances (new development)
- Water Rates

Elements Work Together to Increase
Overall Effectiveness



Program Elements In Place to Date

- Conservation and Water Shortage Contingency Plan Ordinance
- Landscape ordinance – turf limits for new development
- Public Education/Outreach



Program Elements In Place to Date

- Home Water Surveys
- Incentives – rebates for high efficiency toilets and turf conversions
- Joining California Urban Water Conservation Council (Commitment for 14 Best Management Practices)



Landscape Ordinance Turf Limits

- SF Residential - < 25% front yard
- MF Residential - < 20 landscaped area
- Commercial - <10% landscaped area
- No turf in parkway strips



Toilet Rebates

- Over 5,000 Paso homes pre-1993
- 1.28 gal./flush (HET) or dual flush
- Up to \$125/toilet rebate
- Avg. savings 12,000 gal./yr/home



Turf Replacement Rebate

- Rebate of \$0.50/s.f. up to \$500
- Up to 30,000 gal/year water use reduction for every 1,000 ft. of turf



Home Water Surveys

- Inventory indoor and outdoor uses
- Replace high-flow shower heads, faucet aerators, toilet flappers.
- Recommend irrigation schedules, irrigation system improvements.



2010 and Beyond

- Continue summer mandatory 3-day watering (20% reduction goal)
- Promote incentive programs, landscape conversions
- Continue outreach (efficient irrigation, landscape workshops)



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Possible Future Programs

- Increased funding of current incentives
- Additional incentives (washers, commercial programs, others)
- Toilet retrofit on resale ordinance (combined with rebates)
- Interior plumbing ordinance (new devel.)
- Tiered water rates

Paso Robles Climate Appropriate Landscape



Questions?