Las Posas Basin Plan Discussion Paper No. 6

Management Alternatives
March 31, 2010 Draft and Subject to Change
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Reference: Discussion Papers No. 1 Hydrologic Summary and Goals, No. 2 Plan Outline, No. 4 Issues for Evaluation, and No. 5 Draft Management Plan - Condensed

The purpose of this discussion paper is to stimulate debate on the mix of alternatives to bring the Las Posas Basins to a sustainable yield. Please forward comments to Henry Graumlich at hgraumlich@calleguas.com. Additional opportunities for comment will be available as the plan progresses.

I. Implicit Assumptions

A. The existing groundwater management approach of historical allocations, efficiency allocations, credits, and expansion of groundwater use has overallocated the sustainable yield of high quality groundwater. The status-quo groundwater management approach is unsustainable.

B. Cooperative regional alternative management approaches offer potentially greater benefits than if each interested party pursues its narrow self-interest.

C. Due to the complexity of the geological setting, the influence of imported water, and water quality considerations; the technical basis for understanding the hydrology of the basins is continuing to develop. Management alternatives will necessarily be based on the best available information, but will require an adaptive approach.

D. The protection of water quality and the adopted salts TMDL will require investment in the reclamation of brackish groundwater.

E. Agricultural enterprise requires flexibility in its use of water resources in response to climatic variability and as a cost component in its business decisions.

F. Las Posas stakeholders have a continuing interest in maintaining current inflows from the Simi Basin as part of the water balance.

G. A transition period to sustainable yield is preferred to allow for adaptation of water use by all parties.

H. Are there other implicit assumptions that are critical to management alternatives?

II. Estimated Basin Yield

A. East/South Las Posas

1. Basin yield estimated from 13,500 to 16,500 af/yr, or approximately 15,000 af/yr.
2. Estimated overdraft: 2,000 to 5,000 af/yr.
3. Irrigated acreage: 10,000 acres

B. West Las Posas

1. Basin yield estimated <= 12,000 af/yr.
2. Estimated overdraft: >= approximately 1,000 af/yr.
3. Irrigated acreage: 10,300 acres

III. Proposed Basin-Specific Management Plan Alternatives

A. Demand Management Alternatives

1. Historical allocations proportionally reduced
2. Per acre allocation
3. Combination of historical and acreage based
4. Facilitation of reapportionment of allocation among agricultural interests
5. Differential treatment of new or expanded water uses
6. Rolling average use
7. Others?

B. Remove and Treat Poor Quality Groundwater

1. Regional desalination of shallow groundwater
2. Remediation of degraded confined aquifer groundwater
3. Wellhead treatment and brine disposal
4. Extent of shared cost and benefit
5. Others?

C. Supplemental Water to Achieve Safe Yield

1. Imported water supplies
2. Blend water to facilitate brackish groundwater use
3. Recycled water
4. Others?

D. Enhanced Recharge: Managed Drawdown of Unconfined Aquifer and Stormwater Capture and Controlled Release

E. Adaptive Management and Monitoring