

Facts Concerning Borrego Valley's Water Supply

The primary source of freshwater for the Borrego Valley is groundwater; that is water that accumulated under ground over thousands of years. Precipitation in the mountains to the north and to the west of the valley is the sole source of replenishment of the groundwater.

A groundwater basin is in overdraft when the amount of water pumped from the basin over time exceeds the amount of replenishment to the basin. Overdraft is demonstrated by downward-trending water levels in wells. When water levels fall, natural springs stop flowing, wells go dry, and wells collapse. All of these impacts from overdraft have been observed in the Borrego Valley. In addition, other effects have been observed such as loss of native vegetation, subsidence of the ground surface, earth fissures, and degradation of water quality.

The current rate of groundwater pumping produces an average annual overdraft equivalent to about 1,500 40-foot-long tanker trucks of water leaving Borrego Valley every day. At the current rate of use, the groundwater supply is not sustainable.

A Few Reasons Why You Might Care

- As water levels decline, water quality often decreases. To render this deeper water potable or potentially even useful for irrigation may require more expensive advanced treatment. This increases water costs.
- As water levels decline, greater amounts of electricity are required to pump this water to the surface. Pumping costs can dramatically increase. This increases water costs.
- As water levels decline, existing wells fail and no longer can pump adequate water to the surface. New wells need to be drilled. This increases water costs.
- As water levels decline, sometimes compaction of the aquifer and subsidence occurs. This may create the need for expensive repairs to homes, commercial structures, roads, and water distribution systems.
- If the overdraft continues at its present rate, it is certain that some or all of these increases in water costs will occur. The only question is when.

What Needs To Be Done?

Bringing an overdrafted groundwater basin back into balance is a difficult task and is best done by cooperation among all affected parties. Purely voluntary solutions usually are not effective and market forces are also not effective by themselves. The best solutions rely on a combination of market forces, legal requirements and good old-fashioned cooperation. The Borrego Water Coalition is looking for this type of solution to solve our common problem.

Executive Summary of 30 pp. DRAFT DISCUSSION DOCUMENT: BASIN MANAGEMENT OBJECTIVES & STRATEGIES FOR BORREGO VALLEY GROUNDWATER MANAGEMENT PLAN UPDATE - 2014 available at [http:// borregowatercoalition.org](http://borregowatercoalition.org)

TWO BASIN MANAGEMENT OBJECTIVES

- 1. Bring Basin Supply And Demand Into Balance.** What this means is that outflow = inflow. In a balanced basin, there is no longer an overdraft (overdraft means that outflow is greater than inflow).
- 2. Protect Water Quality.** What this means is that we are protecting and restoring groundwater quality to safeguard public and environmental health and secure water supplies for beneficial irrigation, recreational, and domestic and commercial uses.

Priority Basin Management Strategies for Bringing Basin Supply and Demand into Balance

- Use and Reuse Water More Efficiently. Use water more efficiently with significantly greater end-use efficiency, water conservation, recycling, and reuse to help meet future water demands and adapt to climate change.
- Expand Environmental Stewardship through Improved Land Use Management. Work with San Diego County Department of Planning and Development Services (DPS) to remove land use barriers for fallowing presently irrigated farmland; establish formal mechanisms to purchase farmland from those growers wishing to exit the Valley at this time and to permanently retire this irrigated land; develop pricing incentives to promote the use of best management practices (BMPs) by agriculture, recreation, commercial, and recreational water users.
- Improve Data and Analysis for Decision-making. Use USGS MODFLOW model to estimate impact of particular strategies on improving the balance of inflows and outflows from the upper aquifer of the Basin; review pending Reclamation Southeast California Regional Basin Study results. Use results to forecast the economic cost of replacement water for recharging the Basin.

Not to Pursue at this Time Strategies for Bringing Basin Supply and Demand into Balance

- Invest in New Water Technology
- Build Conveyance Systems to Transport Purchased Water to the Valley
- Expand Conjunctive Management of Groundwater (Water Banking)

Priority Basin Management Strategies for Protecting Water Quality

- Monitor Drinking Water Treatment Requirements and Distribution Integrity and Invest in Advanced Water Treatment, If Necessary
- Manage BVGB Watershed
- Protect Existing Groundwater Recharge Areas

Not to Pursue at This Time Strategies for Protecting Water Quality

- Monitor and Reduce Sources of Nonpoint Source Pollution
- Remediate Groundwater and Aquifer to Protect the Basin from Expensive Future Water Quality Issues
- Match Water Quality To Use