Ojai Basin Modeling Update and Drought Analysis

Ventura River Watershed Council
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Gregory Schnaar, Ph.D.
Stephen J. Cullen, P.G., Ph.D.
Daniel B. Stephens & Associates, Inc.

gschnaar@dbstephens.com
scullen@dbstephens.com
(805) 683-2409
Santa Barbara, CA
Mission

It is the mission of the Ojai Basin Groundwater Management Agency to preserve the quantity and quality of groundwater in the Ojai Basin in order to protect and maintain the long-term water supply for the common benefit of the water users in the Basin.

Activities

- Groundwater Management Planning
- Documents groundwater extraction from reported pumping
- Collects extraction charges from well owners
- Coordinates with the County and private entities to monitor Basin conditions
- Supports the San Antonio Spreading Grounds Rehabilitation Project (SACSGRP)
- Maintains a groundwater model of the Basin
- Monitors water levels in the Basin
- Performs outreach and education activities
- Participates in watershed, County, and State-wide meetings
- Assists individual stakeholders and landowners
Current Drought Conditions Unprecedented
Ojai Groundwater Model Updated through December 2013
Distributed Parameter Watershed Model (DPWM) estimates groundwater recharge from precipitation and irrigation.
Recharge Primarily from Precipitation, Focused in Stream Channels
Recharge $\leq$ 1,000 ac-ft/yr when rain is less than 10 inches
Groundwater model estimates groundwater levels and groundwater balance
Updated Groundwater Model Calibration - Mean Error 21 ft
Groundwater Balance:

Change in Groundwater Storage = Groundwater Inputs - Groundwater Outputs
1970 - 2013: Net loss of 111 ac-ft/yr groundwater in storage

Explanation
- Recharge from septic systems, wastewater, former SACSG
- Irrigation recharge
- Precipitation recharge (upgradient)
- Precipitation recharge (basin floor)

Groundwater outflow
Riparian evapotranspiration
Discharge to San Antonio Creek
Pumping for Ojai city use (GSWC)
Pumping from private wells
2009 - 2013: Net loss of 2,532 ac-ft/yr groundwater in storage
Groundwater Levels Projected to Remain Relatively Low Even if 2015 is a “Wet” Year (~40 inches precipitation)
Questions?