

# Vision for the Antelope Valley Integrated Regional Water Management Plan



David Pedersen

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Los Angeles County Waterworks District No. 40,  
Antelope Valley

## About District No. 40



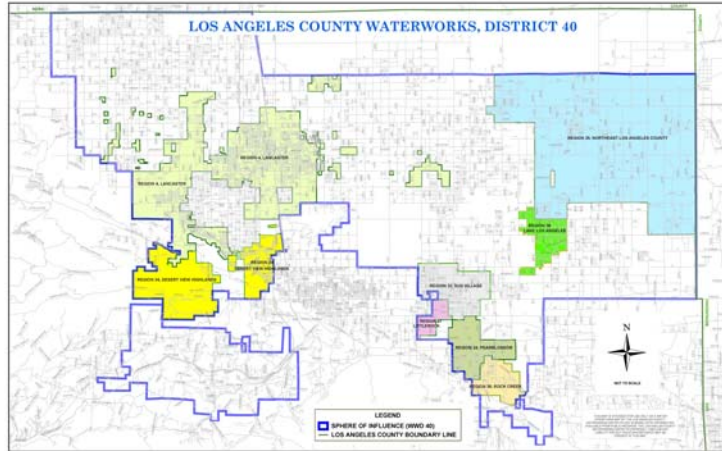
- Largest of 5 County Waterworks Districts managed/operated by LACDPW
- 53,000 active connections serving a population of approx. 160,000
- 2005 demand – 54,000 acre-feet
- District's supplies are groundwater and treated SWP water from AVEK



Los Angeles County Waterworks Districts



## Service Area Map



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## Issues and Challenges

- Water supply
  - Operational capacity
  - Reliability
  - Sufficiency
- Water quality
  - Disinfection by-products (TTHMs)
  - Arsenic
  - Future regulations



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## Operational Capacity

- Capacity of AVEK's Quartz Hill Water Treatment Plant (QHWTP)
  - Based on the 2005 IUWMP, the max-day demand for the District's Region 4 & 34 and QHWD will be 200 MGD by 2030; and AVEK's UWMP estimates a total demand for its service area of 197,000 AF by 2025.
    - Approx. 45 MGD of demand can be met with groundwater
    - Balance of 155 MGD must be met from QHWTP



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## Operational Capacity (con't)

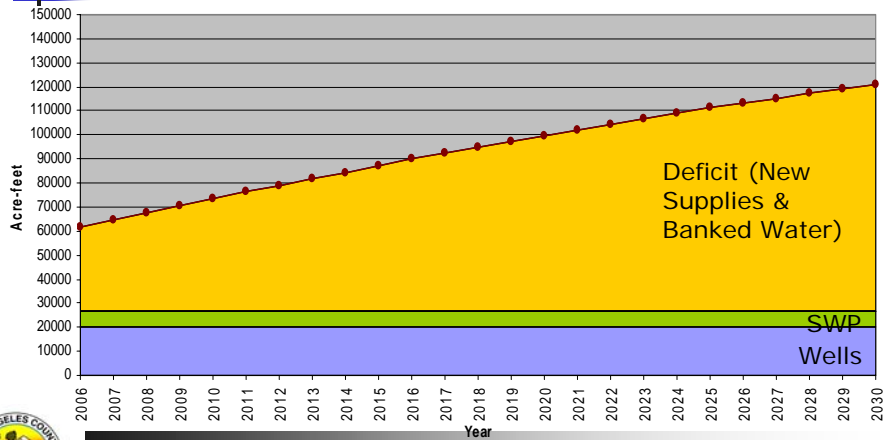
- Planned Expansion of QHWTP from 65 to 90 MGD – completion 2009, capacity will be exceeded by 2013
- AVEK needs to start planning for additional treatment plant capacity
- District requested that AVEK initiate a demand-based evaluation of water treatment plant capacities
- Transmission system capacity
  - Need for hydraulic modeling and master planning of AVEK's and District's transmission system to ensure sufficient conveyance capacity.



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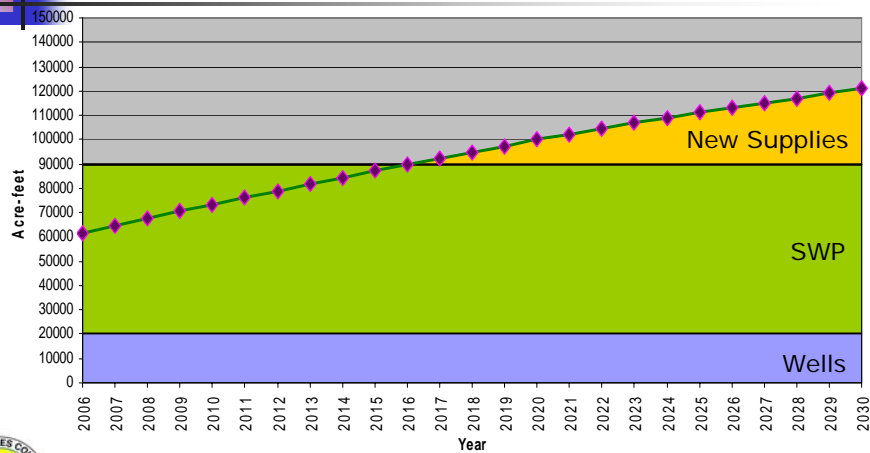
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# Water Supply Reliability (Single Dry Year)



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# Water Supply Sufficiency (Normal Water Years)



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## Accomplishments/Progress

- Antelope Valley IRWM Plan (in progress)
- 2005 Integrated Urban Water Management Plan for the Antelope Valley
- Aquifer Storage and Recovery Program
- District's In-Lieu Recharge Program
- Water Conservation Program
- Chloramines Conversion Project
- Arsenic Mitigation Project



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## Vision for the Future (cont.)

- Increase operational capacity:
  - Evaluate the capacities of AVEK's water treatment plants based on 2030 demands and plan for future expansions.
  - Identify limitations in our existing transmission system and construct the necessary improvements.



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## Vision for the Future (AV IRWMP)

- Improve water supply reliability:
  - Bank surplus State Water Project water in the Antelope Valley Groundwater Basin;
  - Protect the quality of the Antelope Valley Groundwater Basin;
  - Protect the Antelope Valley Groundwater Basin from overdraft;
  - Prevent potential land subsidence; and
  - Increase groundwater levels.



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## Vision for the Future (cont.)

- Increase water supply sufficiency:
  - Purchase additional entitlement and pursue other opportunities such as water transfers;
  - Establish a recycled water program;
  - Encourage water conservation and use of native, drought-tolerant landscaping; and
  - Participate in innovative water supply projects (i.e. desalination).



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## Potential Projects

- Western Development and Storage's Groundwater Banking Project
- Other water banking projects (Stetson Report)
- Groundwater Recharge w/Recycled Water (City of Lancaster)
- Expansion of ASR Program
- North Los Angeles/Kern County Regional Recycled Water System
- Water conservation projects
- Agricultural In-lieu Recharge Program
- Storm water capture/recharge



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