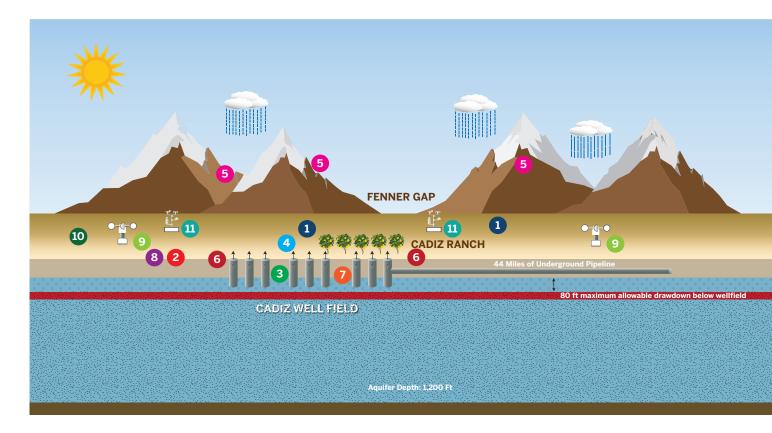


# GROUNDWATER MANAGEMENT, MONITORING AND MITIGATION PLAN

**Cadiz Valley Water Conservation, Recovery & Storage Project Protecting the Desert and Sensitive Habitats** 



### **GROUNDWATER MANAGEMENT, MONITORING AND MITIGATION PLAN**



### **More than 100 Separate Monitoring Points for Scientific Certainty**

A key design feature of the Cadiz Valley Water Conservation, Recovery & Storage Project is its state-of-the-art Groundwater Management, Monitoring, and Mitigation Plan. The Plan was designed by leading groundwater experts in consultation with San Bernardino County staff and will provide a thorough and fully transparent approach to ensuring safe and sustainable management of the groundwater basin and protection of the local environment.

The Plan includes over 100 separate monitoring elements to ensure that the basin's management is based on sound science:

16 Observation wells
21 Cluster wells with depth-discrete screened intervals
3 Up to 34 project production wells
4 20 Land survey benchmarks
5 3 Springs observation and monitoring
6 3 Extensometers for land subsidence monitoring
7 5 Downhole flow meter surveys
8 6 Gamma-ray and dual induction logs at cluster wells to determine changing conditions
9 4 Nephelometers for dust monitoring
10 Vegetation monitoring
11 4 Weather stations



2019

This extensive and ongoing management will allow the County to compare the projections used to design the Cadiz Water Project and its groundwater management plan with updated field data. If variations develop that appear to be potentially harmful to the aquifer, springs or desert habitats, corrective measures will be implemented to ensure that any unanticipated results are addressed immediately.

#### **Creating the Groundwater Management Plan**

In 2001, the U.S. Department of Interior approved a monitoring plan for an earlier version of the Cadiz Water Project. The new Plan carries forward the key elements of this earlier federal plan, adding new monitoring requirements based on extensive field investigations, groundwater modeling, technical analysis and pilot programs.

The draft Plan was reviewed by an independent Groundwater Stewardship Committee made up of recognized leaders in hydrology, hydrogeology and academia. After their suggested changes were added to the draft, it was reviewed again by the County's groundwater basin management experts, and after their suggestions were incorporated, it was published for public review prior to its consideration and approval by the San Bernardino County Board of Supervisors.

#### **Final Authority Over Pumping**

The Plan protects the public interest by giving independent and final authority to the County. It can address any impacts or potential impacts identified by monitoring, and make corrective measures when needed, up to shutting down pumping until a plan is developed to address an unforeseen impact.

## **Establishing a Maximum Level of Aquifer Drawdown**

The Plan also establishes a "floor," or maximum groundwater drawdown level, which will avoid over-drafting and guarantee that the project can never "drain the desert," as opponents falsely claim.

The floor is initially set so the current water table cannot be drawn down by more than 80 feet, over a two-mile radius from the center of the Project wellfield area. To put this in perspective, the aquifer is at least 1,000 feet deep at the wellfield. If future monitoring shows no impacts have occurred with an 80-foot drawdown, it can be increased to 100 feet, subject to public input and review.

#### http://www.cadizwaterproject.com/conserving-groundwater/





#### **Full Transparency**

Data received from the Plan's monitoring network will be compiled on a monthly basis by the Project operator, the Fenner Valley Water Authority, a public agency that is subject to the state's public disclosure laws. A Technical Review Panel (TRP) compromised of groundwater experts appointed by the County will assess the technical data and advise the County and the Fenner Valley Water Authority of current conditions and make recommendations for adjustments to operations, if needed. All reports of the TRP will be filed with the County and made available to the public.

In addition, the various models used during the Project's environmental review will be updated at least every five years to reflect the new data acquired during Plan monitoring and Project operations. These updated models will be used to confirm the accuracy of the original projections and provide an ongoing technical database for the Project.



#### To learn more, visit

http://www.cadizwaterproject.com/conserving-groundwater/.

