

DRAFT EXECUTIVE SUMMARY

Diamond Valley GID Financial Model Feasibility Analysis

It is proposed that a Diamond Valley General Improvement District (GID) be formed to develop and execute a water management program to enhance the sustainability of the underground water supply and storage for Basin 153. The Diamond Valley GID would provide a financing vehicle to implement the water management program.

The model considers two water management strategies. The first is a water retirement program under which the GID pays farmers for their water rights and then relinquishes them to the State. The second is a set aside program. Under a set aside program portions of land are not irrigated for a specified period of time (3 years or 5 years for example) and then are returned to irrigated crop production while other portions of land are not irrigated. This rotation of land holds appeal for the societal benefits that may be achieved such as keeping population within the valley and maintaining social stability and the County's tax base; however, it would add another layer of implementation challenges, primarily with eligibility and equity. A set aside program would increase total program costs and could lengthen the timeframe to complete the water rights retirement program.

The analysis finds that financial feasibility of a GID to retire water rights in Diamond Valley is subject to acceptability of the timeframe to complete the program, level of County commitment to assist with funding the program (or ability to obtain other sources of contributions), the prices paid to farmers to purchase their water rights and the farmers' willingness to participate in the program.

The cost to form and operate a Diamond Valley GID to retire water rights is high. Water rights retirement and/or set aside water management strategies would benefit those farmers compensated for loss of their water rights. In addition, the strategies would benefit the aquifer and remaining irrigating farmers by stabilizing water levels such that farming can continue in perpetuity, but they would not benefit other residents of the County unless the land that is stripped of its water rights is put to other economic use. Other residents of the County may benefit if some portion of the County's financial commitment to the water issue in Diamond Valley is spent on researching and supporting alternative farming practices and other economic activities that recognize value in the land as well as the water resources in Diamond Valley.

Key Financial Model Results

- A water rights retirement program is estimated to cost between \$36.6 million and \$47.8 million.
- Total cost burden is estimated in the range of \$420 to \$486 per participating acre with the County contributing 75% of the water retirement program cost. Addition of a set-aside program could increase the total cost burden up to a total of \$611 to \$677 per participating acre with 243 acres set-aside each year. In the model the County does not contribute to funding the example set-aside program.

- At \$420 per acre total cost burden the annual burden is \$8.41 per acre (applied to all agricultural land with water rights in 2013) per year for 50 years.
- Target program goals can only be achieved using a per acre parcel charge revenue collection methodology. An ad valorem tax rate collection methodology would require either a greater County financial contribution or a time-period in excess of 50 years.

Key Assumptions

- Target Goals of a Water Rights Retirement Program over 50 Years to stay within the perennial yield of Basin 153:

Reduction in Annual Pumping from 2013 Pumping Level	Total Irrigation Rights Retired	Agricultural Land Compensated for Loss of Irrigation Water Rights
<i>Acre-feet</i>	<i>Acre-feet</i>	<i>Acres</i>
47,530	88,460	22,214

- Achieving these goals would result in 60% reduction in current level of irrigation pumping from 77,790 acre-feet per year to 30,260 acre-feet per year.
- County financial contribution is \$633,100 per year for 50 years (75% of total water retirement program cost) plus absorption of GID formation costs, County staff time costs, and potential other costs not quantified in the model associated with the program upon retirement of water rights.
- Average price paid to retire water rights over the 50-year period is \$1,900 per acre. This price is bracketed by a low range of \$1,650 per acre (assumes the land value decreases from \$800 to \$300 after removal of water rights) and a high range of \$2,150 per acre (assumes the land has no value after removal of water rights).
- There will likely be circumstances under which certain properties would be paid more or less than the bracketed range per acre depending on the farmer's time-preference of money (whether the farmer prefers to get cash now or wait until some future time period).
- Diamond Valley alfalfa producers receive an average annual price of \$204 per ton and yield 4.52 tons per acre per year. The analysis is based on 100% irrigated alfalfa hay production because it represents the majority of irrigated agricultural activity.
- Agricultural land with water rights and the County are the GID funding participants even though the GID boundary could encompass the entire Basin 153 allowing for other future potential funding participants.