

IWVWD General Manager's Column  
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## **“Local Studies Will Assist in Understanding IWV Basin”**

**By Don Zdeba**

Much of the press regarding water issues in recent months has been about meetings of the Indian Wells Valley Groundwater Authority (IWVGA) that was approved as the local Groundwater Sustainability Agency (GSA) by the Department of Water Resources. It is important that residents of our valley are aware there are some very significant studies being conducted on a parallel path that will aid in better understanding of the characteristics of the aquifer within the Indian Wells Valley basin.

In March 2016, Kern County was awarded \$500,000 in grant funding through the Proposition 1 - Sustainable Groundwater Planning Grant Program for Counties with Stressed Basins. The funds are designated to be used for sustainable groundwater planning and technical support and to be split evenly between the San Joaquin Valley and the Indian Wells Valley. Of the \$250,000 allocated to our basin, \$90,000 is earmarked for a study being conducted by the U.S. Geological Survey (USGS) to model and quantify recharge into the basin. It is noteworthy that the USGS is sharing the cost of this study. The analysis is being done using a Basin Characterization Model (BCM) that utilizes such information as historical climate data, local evapotranspiration rates, and soil properties. The BCM has been used successfully in desert basins within the Southwest. The USGS began preliminary data gathering for this study early last month and it is expected to take a year or more to complete. The USGS has committed to providing periodic updates in a public forum as the study progresses.

Another study that is currently in progress is a Brackish Groundwater Feasibility Study being funded by a partnership consisting of Searles Valley Minerals, Coso Geothermal, Mojave Pistachio, and Indian Wells Valley Water District. Initial contributions to this study amount to \$370,000. There may be need for an additional \$103,000 to complete the project scope as outlined. The group will apply for funding from Proposition 1 to cover the balance. The objective of the Feasibility Study is to identify and quantify brackish groundwater resources and evaluate the feasibility of developing these resources as a potential alternate source of water supply in IWV. This study also was initiated in May and is primarily being conducted by aquilogic, an environmental and water resources consulting company based in Orange County. The District's consulting hydrogeologist, Tim Parker, is also participating. An overview of the Feasibility Study was presented at the June 15<sup>th</sup> meeting of the IWVGA.

Finally, the Danish government will be signing a Memorandum of Understanding (MOU) with the State of California September 22<sup>nd</sup> allowing the Danes to share their experience with groundwater management as a result of declining groundwater levels and quality in the 1990's similar to that which California has experienced during the recent drought. Although the direct causes are different, the end result was development of technologies and management practices that have proven to be very successful. As part of the MOU,

Stanford University is submitting a proposal to conduct aerial geophysical surveys of three California basins; Butte County, San Luis Obispo County, and Indian Wells Valley. This is a \$2.1MM project to be funded jointly by the Danes, the State, and the local basins. According to the proposal, local funding for our basin would be \$200,000. Once approved, the work would take place later this year. The aerial survey would yield a 3D view of the basin to depths of up to 1,300 feet indicating depth to water, whether the water is brackish or potable, identify geological features such as faults, and identify the stratigraphy (sands, gravels and clays). The deliverables for this project would be the data acquired, development of a data management system, and a revised hydrogeological conceptual model. In consideration of limited space, for more information on this technology I refer you to the following link to a YouTube video.

<https://www.youtube.com/watch?v=fSQaNRbzTmU>

As you can see, there are some very exciting and encouraging studies both in progress and being planned. I urge everyone to stay informed about these studies as well as the actions of the IWVGA as it tackles the task of developing a Groundwater Sustainability Plan by January 31, 2020, as required by the 2014 Sustainable Groundwater Management Act.

For information related to state and local water issues, I encourage you to regularly visit the District's Facebook page (IWV Water District).