



# INDIAN WELLS VALLEY WATER DISTRICT



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August 9, 2023

Carol Thomas-Keefer, General Manager  
Indian Wells Valley Groundwater Authority

cc: Steve Johnson, Water Resources Manager  
Indian Wells Valley Groundwater Authority

Subject: Indian Well Valley Groundwater Authority  
Imported Water Conveyance System Project

Dear Ms. Thomas-Keefer,

We understand that the purpose of the Imported Water Conveyance System Project (Project) is to augment the supply of water within the Indian Wells Valley by importing water from the State Water Project (SWP), via the Antelope Valley East Kern Water Agency (AVEK) into the Indian Wells Valley for direct connection to the Indian Wells Valley Water District's (District's) domestic water system; thus providing in-lieu groundwater replenishment by reducing the District's groundwater extraction. As such, we believe that our participation in the Project is necessary for the Project's success, especially with a direct connection to the District's facilities currently being proposed. However, to date, the District's Board of Directors and other stakeholders have not been provided with sufficient information from the Indian Wells Valley Groundwater Authority (Authority) to allow it to formulate the District's position on the Project as currently conceived.

To proceed, it is incumbent upon the District to perform the necessary due diligence and accurately assess the various impacts of the Project on the District's customers and facilities, particularly with regard to costs. We appreciate the information provided to date by the Authority and its consultants to address our questions and concerns; but the provided details are not comprehensive enough to perform a thorough analysis, resulting in a number of questions remaining unanswered, which are set forth below. We believe that the Authority's responses will be informative for not only the District, but for other stakeholders as well.

### Water Rights/Capital Cost

A comprehensive cost estimate covering the water rights purchase and capital costs of the Project has not been provided to date, but is necessary to assess the Project's financial impact on the District's ratepayers. It is anticipated that this cost estimate will need to address, at a minimum, the following questions:

- According to the current "letter of intent" that is in place per the Dudley Ridge Water District's (Dudley Ridge's) website, the Authority is to purchase 750 acre-feet per year (AFY) of SWP Table A water allocation from Dudley Ridge at a cost of \$8,528 per acre-foot (AF) for a total cost of \$6,396,000.
- The SWP is a variable water source that rarely provides 100% of the water allocations. Currently, the estimated long-term average allocation is approximately 42%, reducing the amount of the anticipated resulting "letter of intent" water allocation to 315 AFY. At this reduced rate, the Authority's future deliveries target of 6,431 AFY would require SWP Table A water allocations of 15,312 AFY. Assuming these additional water allocations would be acquired at a cost

similar to the Dudley Ridge "letter of intent" rate of \$8,528 per AF, this would be a total cost of approximately \$131,000,000.

- If an adequate amount of SWP Table A water allocation rights cannot be obtained, will alternate sources of water be pursued? If so, what are these sources and what are their anticipated costs?
- What is the Project's estimated capital cost? It appears likely to approach \$200 million, considering the Project consists of 50 miles of 20" or 24" pipeline, a 7 million gallon (MG) blending tank, three booster pump stations, disinfection station(s), and a pressure reducing valve (PRV) station.
- What are the estimated soft costs (design, permitting, construction engineering, inspection, etc.)?
- What is the estimated cost for CEQA/NEPA compliance, including anticipated related litigation and resulting Project delays?
- What is the estimated cost for the installation of the necessary Southern California Edison infrastructure to provide power to the three booster pump stations and one PRV station?
- What is the estimated cost for acquiring adequate easements for the installation of the conveyance system?
- What is the estimated cost for securing mitigation land needed to offset habitat disturbance resulting from Project construction?
- If loans/bonds are required to cover the above costs, what are the anticipated terms (interest rate and duration) and resulting financing costs?

#### Annual Operating Cost

It is anticipated that this cost estimate will need to address, at a minimum, the following questions:

- What are the SWP costs (both the fixed costs and variable transportation costs) required to secure the water on a yearly basis?
- What are AVEK's costs that will apply (treatment, delivery of treated SWP water to Project, injection/recovery of stored AVEK groundwater for delivery, wheeling, other)?
- What is the anticipated yearly cost (labor, electricity, disinfectant chemicals, repair materials, etc.) for operating and maintaining the conveyance system?

#### Future Capital Cost

The conveyance system will require replacement at the end of its design life (likely 50+ years for pipeline after completion, less for mechanical components), unless the basin demands are low enough that the system can be abandoned (which may then result in the Bureau of Land Management (BLM) requiring complete removal of the facility). What will be the estimated annual contribution to a "capital replacement fund" to prepare for such replacement activity?

#### Planning

- The District's current minimum day demand (typical for winter months) is between 1.0 and 1.5 MGD. The District's current maximum day demand is generally 5 MGD. The ultimate delivery of 6,431 AFY translates to about 5.8 MGD. What is the plan to accommodate the surplus delivery?
- Has delivery to a groundwater replenishment facility (either full-time or during low demand periods in the District's service area) been considered?

### Operation/Permitting

- The District has stated that it would prefer to take operational control at the blending tank where water will be delivered and not be responsible for operation of the conveyance facilities, but no agreement is currently in place. The State Water Resources Control Board, Division of Drinking Water (DDW) has informed us that the entity that operates the proposed conveyance facilities must be a public water system. Who will be the operator of the proposed conveyance system?
- Are the intended operating hours of the conveyance system planned to be outside of the peak Time of Use (TOU) rates imposed by Southern California Edison (in order to help reduce operating costs)?
- The District has been informed by DDW that introducing State Water Project Water directly into the District's system, even if it has been treated and passed through a groundwater banking facility, will result in the District requiring surface water system licensure, which would require additional certifications for District's employees and additional monitoring. Said certifications will impose additional costs on the District and will take time to obtain. Additional monitoring requirements will be dependent on the specific quality parameters of the water to be delivered to the District. Are the results of a complete water quality analysis of the water proposed to be delivered via the proposed conveyance system available so that potential water quality issues requiring action by the District are known?

### Water Quality

- Should any water quality constituents of the imported water, such as Total Dissolved Solids (TDS), exceed those of the existing groundwater supplies, will the City of Ridgecrest's Wastewater Treatment Plant be required to incorporate additional improvements to comply with its operating permit discharge regulations, and to prevent adverse impacts on the groundwater basin? If so, what are the estimated costs for said capital improvements?
- There is a potential issue with Trihalomethanes (THMs) in the AVEK system that we understand will need to be addressed with additional treatment at the connection point to the District's system. What is the proposed treatment process, and what is the anticipated cost of the necessary facilities?
- What is the plan for maintaining water quality in the pipeline (especially during low flow conditions)?

### Flushing/Disinfection

- It is possible that a complete flushing and disinfection will be required any time the system sits unused for a period of time. In these instances, it appears an expected loss of water of approximately 18-20 AF is possible for every flushing occurrence (which would constitute 2-6% of the initial water quantity anticipated to be conveyed by the pipeline). What is the plan to prevent/reduce the need for these flushing events (i.e., maintain a constant flow to percolation ponds during low flow periods, etc.)?
- Where will discharge points be located for flushing of the pipeline, and how will the flushing water be disposed? Are the necessary permits for flushing water disposal from California Department of Fish and Wildlife and the BLM currently being acquired?
- As it is understood that disinfectant levels will need to be maintained throughout the length of the conveyance system, where will the disinfection stations be located in the system? This will have a direct impact on the operating cost of the pipeline.
- Where will the associated disinfectant sampling stations be located in the conveyance system? This will also impact operating cost of the pipeline.

## Impact to the District's System

Introducing large flows into the proposed connection point of the 3.0 MG Ridgecrest Heights Reservoir in Pressure Zone B will require a minimum of the following improvements to the District's system. How will these improvements be funded?

- Replacement of the existing C Zone booster station at the Ridgecrest Heights Reservoir site: cost estimate of \$2.5 million in 2021 dollars.
- Replacement of the Springer Avenue, South Gateway Boulevard, and Bowman Road pipelines: cost estimates of \$3.4 million, \$2.5 million, and \$5.4 million, respectively, in 2021 dollars.
- Upgrades of the Bowman and Springer PRV stations: cost estimates of \$1 million each in 2021 dollars.

Because the Project capital cost will be hundreds of millions of dollars, and will result in significant annual operation and maintenance expenses, the District requests that the Authority prepare and present a comprehensive cost summary for consideration by the District, the Authority Board of Directors, the Indian Wells Valley community, and other interested local, regional, state, and federal individuals and entities. The summary should include all costs identified in the previous sections, together with other costs the Authority or its consultants are aware of, as may have been identified during their discussions/negotiations with State Water Contractors, Department of Water Resources, AVEK, and others. The summary should reflect total cost and annualized cost, which should be presented as both total cost per year and unit cost per AF. The summary should include ranges for "optimistic" conditions (delivery of 100% Table A allocations, securing grants as may be reasonably expected, and other factors) and "pessimistic" conditions (reduced delivery of Table A allocations such as 5% for recent years and 42% projected by State, no grants, and other factors). The summary should also include financing/interest costs for the capital expenditures. Lastly, the summary should include costs for short-term (initial allocation of 750 AFY) and long-term (ultimate allocation of 15,312 AFY), included in the "optimistic" and "pessimistic" scenarios.

The above described cost estimates should then be analyzed by the Authority in order to identify the funding mechanism(s) required for Project implementation and operation. Specifically, what fees (replenishment, pumping, other) will be imposed on the various groundwater pumpers as a result of this Project.

We appreciate the opportunity to present our questions and concerns to the Authority and look forward to your responses, which will allow the District's Board of Directors to proceed fully-informed with their deliberations regarding the District's potential support of the Project.

Sincerely,



Don Zdeba  
General Manager