1316 Elsa Way Boulder City, NV 89005 September 25, 2017

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Subject: Southern Nevada Water Authority's Plans to Pump Groundwater in Eastern Nevada

Desalinization of ocean water is a better alternative for acquiring an additional water supply for the Las Vegas area. The Pacific Ocean's limitless supply of water will be far more dependable than a finite groundwater supply in eastern Nevada.

The Southern Nevada Water Authority (SNWA) should invest in a desalinization plant off the California coast and enter into a contract with the entities necessary to allow SNWA to divert more water from Lake Mead in exchange for California's use of the desalinated water developed at the expense of SNWA.

The keys to making this proposal work rest on (1) having sufficient water in Lake Mead for SNWA to divert and (2) an exchange of water arrangement with a California entity or entities. Finite quantities of Colorado River are permanently apportioned to 7 Colorado River Basin States, including California and Nevada. Colorado River Law establishes that water apportioned to one state cannot be transferred to another state. However, this limitation can be worked around.

While working for the United States Bureau of Reclamation, I took part in the development of innovative water banking agreements among the states of Arizona, California and Nevada in the early 2000s. In one agreement, SNWA paid an Arizona entity (the Arizona Water Banking Authority) to store Colorado River water underground in Arizona. Under terms of that agreement, when SNWA needs additional water in the future, Arizona will decrease its diversion of Colorado River water in the finite quantity that SNWA requests. Arizona's agreement not to divert that water creates a category of water called "intentionally created unused apportionment." Because Arizona and other Colorado River water users have already committed to not diverting this water, the Secretary of the Interior can then release it to Nevada for diversion by SNWA. In lieu of diverting a finite quantity of Colorado River water, Arizona will pump an equal quantity of groundwater that SNWA paid to store in Arizona. The groundwater that Arizona pumps for the water bank will decrease the amount that was stored in the water bank for the benefit of SNWA.

A similar water banking agreement allowed SNWA to store water in surface reservoirs of The Metropolitan Water District of Southern California (MWD).

SNWA should develop or participate in the development of one or more desalinization plants off the California coast. SNWA and appropriate parties with rights to divert and use Colorado River water

would need to enter into an agreement that would accomplish the same purpose as the aforementioned water banking agreements. Under the terms of that agreement, there would be a commitment for one or more California entities to use SNWA's share of desalinated water. In exchange, the California entity or entities would divert less Colorado River water. As in the aforementioned water banking agreements, an agreement would need to be signed by several other parties. California entities that have a Colorado River water priority that is higher than MWD would need to agree not to divert that water. The water not diverted by a California water user with a right to divert it would establish "intentionally created unused apportionment." The Secretary of the Interior should also sign the agreement so that all parties would recognize that the Secretary would release "intentionally created unused apportionment" to Nevada. MWD has a relatively low priority to Colorado River water among California water users. A future shortage in the Colorado River water supply could reduce MWD's diversion right below the quantity required to satisfy any obligation to SNWA under a desalinization agreement. Therefore, California water users with a higher priority of use would need to be parties to the agreement. This includes Palo Verde Irrigation District, Imperial Irrigation District, and Coachella Valley Water District.

As noted above, SNWA's ability to divert water from Lake Mead depends on water elevation in Lake Mead and agreements with multiple parties in Arizona, California and Nevada who have rights to divert and use Colorado River water. There is no guarantee that Lake Mead could not turn into a mud puddle and thus prevent SNWA from being able to benefit from a desalinization plant on the California coast. However, SNWA's "third straw" will allow SNWA to divert water from Lake Mead at a much lower elevation. There is likewise no guarantee that the groundwater basins from which SNWA seeks to withdraw water in Lincoln and White Pine Counties will not go dry, leaving an expensive but empty pipeline in place.

I believe the feasibility of developing or buying into desalinization plants is a viable option that should be thoroughly evaluated. The cost of buying and maintaining farms in eastern Nevada and the construction and maintenance of the proposed pipeline from eastern Nevada to southern Nevada would not appear to be justified for a limited and finite water supply.

The type of arrangement to implement SNWA's benefit from desalinization plants in California could easily follow the pattern for the water banking agreements signed in the early 2000s. If your office wants to learn more about the water banking agreements, you should contact SNWA and Reclamation's office in Boulder City, Nevada.

Thank you for the opportunity to comment.

Sincerely,

Dale Ensmirger
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