California Water Commission to comment on post-2026 Colorado River Operations Plan

An Item 8. Public Testimony interest for the Commission's August 16, 2023 meeting

Sample post-2026 operations comment:

Seek justice and truth with honest science, engineering, and history for post-2026 Colorado River Management. Features of such an operating plan include:

- Federal funding for multi-benefit, multi-state projects associated with the Colorado River.
- Either drop the concept of "senior water rights" or reassess who really has the most senior water rights. Either way, this is essential for adjusting the total amount of water that can be extracted from the Colorado River each year.
- Have Native Americans decide the total amount of water that can be extracted from the Colorado River each year.

Example multi-benefit Project (there are others)

About 20% of Colorado River water use is for municipal and industrial users (near 3 million acre-feet/year (AFY)). Municipal and industrial users can pay more for water than can agricultural users. Also, low-cost water for agriculture helps make lower cost food.

Projects should have multiple benefits, for example desalting 6 million AFY of the Sea of Cortez while refilling the Salton Sea with the reject brine. Reject brine into the ocean is normally a big environmental impact. In the Salton Sea, reject brine prevents toxic dust clouds, an huge economic and environmental benefit. Figure 1 shows this multi-benefit project replacing Arizona's 2023 plans for a desalination plant near Puerto Peñasco, Mexico with a pipeline through the Organ Pipe Cactus National Monument. The pure water from the pictured Desal Facility can be pumped to Lake Havasu for conveyance to Southern California, Arizona, and water trading to all Colorado River States and Mexico.



Figure 1 – Conceptual depiction of multi-benefit Colorado River project Professional Engineers markcapron@OceanForesters.com and m.hasan@HasanConsultants.com

About 2 million acre-feet/year (AFY) of desal reject brine, and/or seawater, could grow the Salton Sea with more water than evaporates each year. The Desal Facility can be configured to produce reject brine that is less than 70 parts/thousand (ppt) of salt), less than the Salton Sea's current average. Gulf of California water is 35 to 35.8 ppt. The region has ample solar, geothermal, and tidal renewable energy. The Salton Sea is currently an ill-managed polluted salt dump. Reject brine could make it a well-managed salt disposal site for the farmers of California's Imperial Valley. A similar arrangement could be used to refill Great Salt Lake.

No, or different, "senior water rights"

A just rule would admit that Native Americans (including those in Mexico) have 100% of the senior water rights in the U.S. This based on many wrongs that need righting:

- 1) Colonizers, U.S. Federal, and State governments committed genocide while forcing natives to move. The genocide included biologic warfare (not often intentional) that killed 9 of 10 natives. Read Guns, Germs, and Steel (Jared Diamond) and others.
- 2) The 1862 Morrill Act "gave" unceded Native land, and mineral rights, to Union states. This theft of land was used to fund land grant colleges (such as the University of California). The theft included subsurface water and may have included surface water.
- 3) A region of tribal land larger than the state of Rhode Island has been submerged as a result of dam constructions.
- 4) A 22 June 2023 <u>Supreme Court decision</u> denied a Navaho request for the U.S. Federal government to identify the water rights it holds for them.

Even without the injustices, the late 1800's and early 1900's concept of "senior water rights" could be considered as mechanism to drive investment in water and water-using infrastructure in Western States. That is, the investors were assured of recovering their investment. Large investments, such as dams and canals, might be justified with a 50-year economic life. The investors have been overcompensated with over 100 years of investment recovery.

Replacing "senior water rights"

Water from a more-expensive-than-river-water project, such as desalting the Gulf of California, can be allocated to states based on how much a state contributes to the cost (capital and operation) of the project. States might adjust their amount and/or fraction of project water annually by trading with each other or adding more desalting modules and conveyance capacity.

Mexico, ideally the Native Americans in the Colorado River Delta, should have the most senior rights. The amount could be the 1944 agreement's 1.5 million AFY or some faction of the total.

States could receive a fraction of the total natural flow proportional to their land that is irrigated with Colorado River water.

Native Americans would receive a fraction of the total natural flow proportional to their land and population that could be irrigated with and/or receive Colorado River water. The Native Americans select the total amount of water that can be withdrawn from the river each year as follows (fictious numbers for example): If the Native Americans decide to withdraw 2 million acre-feet from the Colorado River in 2035, the total withdrawal (perhaps excluding the flow to Mexico) in 2035 becomes 10 million acre-feet. Should Native Americans plan to use only 0.5 million AFY in 2037, then the total withdrawal (excluding Mexico) becomes 2.5 million AFY. Phase-in over a decade so that Native American's current lack of irrigated land does not constrain the total that can be withdrawn. (Yes. Making the total withdrawal proportional to Native American use leaves non-natives encouraging natives to use more water!)

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