



City of Peoria

WATER SERVICES DEPARTMENT

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September 1, 2022

Ms. Carly Jerla
Senior Water Resources Program Manager
United States Bureau of Reclamation

Sent via e-mail to CRB-info@usbr.gov

Re: City of Peoria, Arizona Comments to the U.S. Bureau of Reclamation on the Proposed Development of Post-2026 Colorado River Operational Strategies

Dear Ms. Jerla:

The City of Peoria, Arizona (“Peoria” or “City”) appreciates the opportunity to submit these written comments on the proposed development of Post-2026 Colorado River Operational Strategies pursuant to the June 24, 2022 Federal Register Notice and Request for Input [87 FR 37884].

Peoria is a growing community with 195,000 residents in the northwest of the Phoenix metropolitan area. The City’s Water Services Department serves approximately 180,000 of Peoria’s residents. Through investing hundreds of millions of dollars in Colorado River water from the Central Arizona Project (“CAP”) and the infrastructure necessary to treat and deliver, Peoria transitioned from being primarily dependent on non-renewable groundwater to renewable surface water. Today, Colorado River water satisfies just over fifty percent of Peoria’s water demand. Access to 34,121 acre-feet of renewable Colorado River water annually is a pillar of Peoria’s current prosperity. In recognition of and required by its place in the Sonoran Desert, Peoria has implemented and invested in developing a strong water conservation ethic. Being a desert city reliant on the Colorado River, Peoria is intrinsically interested in maintaining the health of the river and reliability of the systems that distribute its waters.

With the benefit of hindsight, it is now clear that actions taken since 2000, such as the 2007 Interim Guidelines and 2019 Drought Contingency Plan, have been inadequate to produce the reliability and predictability Peoria and all that relies on the Colorado River need. The development of post-2026 operating guidelines offers the rare opportunity to apply lessons learned from the past twenty-two years by implementing a new operating regime that achieves the shared goal of a sustainable Colorado River system.

Addressing Reclamation’s request for input on, “...potential substantive elements and strategies for post-2026 operations to consider in the anticipated upcoming NEPA process(es)...” we have outlined strategies that incorporate what we believe to be a number of the lessons learned since 2000. These suggested strategies are grouped into two categories, those improving information sharing and understanding and those improving system reliability and adaptation options.

Strategies to Improve Information Sharing and Understanding

A council of seven publicly elected representatives governs Peoria's Water Services Department. The Department is charged with managing the utility and its water supply on behalf of the public. Providing information, advice, and recommendations to its council to make sound decisions are central to the Department's ability to responsibly manage the public trust. With respect to Peoria's allocation of water from the Colorado River, this means having clear, complete, accurate, timely, and understandable information on the status and future risk of the Colorado River system. We offer the following strategies to improve information sharing and understanding so that Peoria and its fellow Colorado River users can better prepare for and respond to ever changing Colorado River conditions.

- Ensure descriptions match commonly understood definitions. For example, the 10th and 90th percentile forecasts are often labeled *minimum* and *maximum* probable for public consumption. This approach leads to an inaccurate and inadequate sense of the true scale of potential outcomes hampering the ability of utility managers to generate sufficient public support for implementing adequate preparations.
- Publicly communicate the full range of possibilities modeled by subject matter experts. Not knowing the true level of risk reduces the urgency and necessity for the public to invest in mitigating the impacts of worst-case scenarios.
- Include all consumptive uses of water e.g., evaporation and system losses when reporting total annual Colorado River water use. Excluding or not explicitly addressing system losses provides an inaccurate picture of total demand on the system and alters the perception of the scale of changes needed to balance supply and demand long-term.
- Avoid solutions that rely on inconsistency between actual water levels and water levels used for shortage declarations. Understanding and communicating complex Colorado River issues is challenging. Having decision-making frameworks that do not align with physical reality greatly increases this challenge.
- Shift focus away from highlighting probabilities of certain outcomes to highlighting specific scenarios. In addition to hindering public comprehension, focusing on probabilities masks risks and reduces preparations. Recent communication of one hydrologic scenario, a repeat of early 2000s runoff, has driven real action and understanding of the risk even though this scenario has been hiding within the five-year probability tables all along. We suggest focusing on communicating a few distinct scenarios e.g., worst, mid, best to better enable decision makers to take appropriate action.
- Improve modeling to incorporate the latest science and enhanced data availability. For example, the Lake Powell April – July Water Supply Forecast does not appear to adequately consider soil moisture or ambient temperature and routinely overestimates final runoff based on historical snowpack-runoff relationships. This overestimate results in sub-optimal operations and inadequate and delayed preparations.
- Quantify and communicate the effects of Lower Basin over-allocation compared to drought and aridification since 2000 before discussing solutions to stabilize the system. Over-allocation, particularly the “structural deficit” provides constant downward pressure on reservoir levels regardless of drought or aridification. Communication efforts that focus on whether future hydrology will be dry or very dry distracts from addressing the primary cause of today's record low reservoir levels, a structural deficit that existed well before the current drought began.

Strategies to Improve System Stability and Adaptation Options

The City of Peoria Water Services Department plans for a wide array of potential water supply futures to develop a more robust water delivery system. However, it is not financially feasible or physically practical to implement plans for every possible outcome. Therefore, Peoria believes one of the most important outcomes of post-2026 operational guidelines must be to greatly increase supply predictability and certainty. Peoria acknowledges increased supply certainty will likely require reductions to its current water allocation. Water utilities cannot meaningfully or responsibly plan based on a long-term water supply outlook that varies between zero – 100 percent. With increased climate variability, a secondary goal should be to provide as much lead-time as necessary to facilitate the development and implementation of adaptation strategies e.g., alternative sources, new infrastructure, demand reduction. Funding, agreements, and infrastructure necessary to adapt to significantly reduced Colorado River supplies requires at least five to ten years. The prospect of mandatory reductions four, twelve, or even twenty-four months in advance is not sufficient or practicable for any utility. With the dual goals of increased supply reliability and enhanced lead times to implement adaptations, Peoria suggests the following strategies for consideration.

- Proportionally distribute Lower Basin reservoir evaporation and other system losses to Arizona, California, and Nevada's apportionments before considering any climate related reductions.
- Distribute the Lower Basin's share of the United States' 1944 Mexico Treaty responsibility equally to Arizona and California's apportionments as contemplated in the 1928 Boulder Canyon Project Act before considering any climate related reductions.
- Assess the effects of aridification proportionally on all Colorado River users, including the Republic of Mexico, after the Lower Basin structural deficit has been adequately addressed.
- Assess actual annual evaporation losses from any water conserved in any reservoir in the Colorado River system to ensure the water available on paper matches actual wet water.
- Shift away from reliance on temporary, compensated conservation programs that create uncertainty with respect to water availability and water cost. Public water utilities cannot hold financial reserves sufficient to address the current level of uncertainty.
- If continued, set shortage tier elevation thresholds at higher water levels in Lake Mead. Higher elevation thresholds leave more water in the reservoir to provide more time to adapt to abrupt, multi-year declines in hydrology.
- Consider more strictly limiting the diversion of additional water above a state's apportionment unless Lake Mead and Lake Powell are near capacity or current year hydrology is significantly above average.
- Provide a greater buffer above minimum environmental flows to provide more operational flexibility when necessary without risking permanent environmental degradation.
- Avoid operating rules that allow a supply-demand imbalance in one major reservoir to continue at the cost of draining another major reservoir, effectively putting the entire system at risk.
- Enable different users, including tribal communities, to more easily temporarily or permanently transfer or exchange Colorado River supplies in voluntary arrangements. Balancing supply and demand long-term will require reductions to all users and additional flexibility is necessary to successfully adapt.

The City of Peoria Water Services Department recognizes the extreme complexity of the Colorado River situation and the incredible number and diversity of stakeholders. In the absence of silver bullet solutions, it is necessary that all parties reject binary propositions and embrace the often abundant area for compromise. With so much at stake, Peoria remains optimistic about the future of the Colorado River because the current situation requires us all to make real, lasting change to achieve a more sustainable river system.

Thank you for the opportunity to provide input. We look forward to participating in this historic process.

Sincerely,



Brett Fleck
Water Resources Advisor



Cape Powers, P.E.
Water Services Director