

# LIVING RIVERS

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Mr. Wayne Pullan, Regional Director  
Upper Colorado Basin Regional Office  
125 South State Street, Room 8100  
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February 17, 2022

Re: Comment Letter (2 of 2) for Drought Response Operations Agreement (DROA); Upper Basin Division

Due date: Close of business, February 17, 2022

Sent via eMail to: [droa@usbr.gov](mailto:droa@usbr.gov)

### A. INTRODUCTION

This is our second comment letter to US Bureau of Reclamation (Reclamation) for the development of the Drought Response Operations Agreement (DROA) in the Upper Basin. The first letter was provided by Living Rivers, Colorado Riverkeeper, and Center for Biological Diversity. With this second letter, we have enlarged the coalition to include Great Basin Water Network, WildEarth Guardians, Rio Grande Waterkeeper and Utah Rivers Council.

Our first comment letter of January 21, 2022 can be downloaded and reviewed here:

<http://www.riversimulator.org/2025Guidelines/USBR/DROAub/DROAcommentsLRandCBD2022Jan21.pdf>

We are attaching all the documents we have cited in both letters into a single Zip File and, for your convenience, this record can be securely downloaded from this url address:

<http://www.riversimulator.org/2025Guidelines/USBR/DROAub.zip>

### B. OPERATIONS AND FACILITIES: REVIEW OF 24-MONTH REPORTS AND PROJECTIONS TO YEAR 2026 AND SUGGESTED REMEDIES

Based on Reclamation's most recent 24-month Report,<sup>1</sup> the 2-Year Projection,<sup>2</sup> and the 5-Year Projection,<sup>3</sup> we recommend the following course of action.

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<sup>1</sup> 24-Month Studies; February 2022, USBR. <http://www.riversimulator.org/24month/2022.02.pdf>

<sup>2</sup> 2-year Projections; 2022, USBR. <https://www.usbr.gov/lc/region/g4000/riverops/crmms-2year-projections.html>

<sup>3</sup> 5-Year Projections; 2022, USBR. <https://www.usbr.gov/lc/region/g4000/riverops/crss-5year-projections.html>

**B.1. Enforce a prohibition on any and all new water projects in both basins. Whereas, projects and programs for tribes and endangered species should be implemented without any further delays.**

Based on the fact that imbalanced consumptive uses have nearly exhausted the active pools at Lakes Powell and Mead and that emergency reductions of active pools in 2021, at the reservoirs known as Flaming Gorge, Blue Mesa and Navajo, an order of restraint is necessary for the consideration of the seven states and the federal government in the Colorado River Basin (CRB).

The negotiated remedies, which include 2007 Interim Guidelines and 2019 Drought Contingency Planning, have not provided the necessary relief for a serious societal problem that will affect the general health and safety of humans and wildlife in the CRB.

This includes the surrogate water resource of the CRB, which is the groundwater supply. The threat of diminishing this water supply is actually greater than surface water supplies, because the recovery of depleted aquifers requires a considerable passage of time; aquifers are less resilient than surface water, especially with today's high evaporation rates and dry soil cover.

The Upper and Lower Divisions of the CRB must reduce their consumptive use in Water Year 2022 by a minimum of 2.4 million acre-feet per year, which is consistent with the reduction of the 30-year average since Year 2001.

Furthermore, that this annual reduction continues to the completion of the Annual Operating Plan (AOP) of 2032, which will incorporate the next 30-year average into planning documents of the CRB. By 2032, we understand the reduction in natural flow and the increase of evaporation rates, will require reductions of at least 3.2 million acre-feet.

We therefore recommend that the seven states of the CRB prepare an enforceable agreement that prohibits new infrastructure that would increase consumptive uses. This prohibition, however, would not include projects and programs to fulfill the delivery of long-awaited federal reserve water rights for tribes, and the recovery of endangered species.

**B.2. Operations at Glen Canyon Dam  
Reduction of consumptive use in the Upper Basin is necessary for dam safety and ecosystem protection in Grand Canyon National Park.**

According to the latest 24-Month Report, Lake Powell will drop below elevation 3520 feet at the beginning of Calendar Year 2023. According to an engineering report by Reclamation,<sup>4</sup> at elevation 3520 feet it is possible that the river outlet tubes will be opened to bypass the natural flow of the Colorado River through Grand Canyon National Park and the Lake Mead Recreation Area, rather than through the penstocks. This action would effectively end hydropower production at Glen Canyon Dam. This engineering report states the following information:

"The velocity profiles indicate the upper limit of withdrawal is near elevation 3520 ft. The lower limit of withdrawal was estimated to be about elevation 3430 ft."

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<sup>4</sup> Glen Canyon Dam Penstock Withdrawal Characteristics, 2007-2008; 2011, USBR. <http://www.riversimulator.org/2025Guidelines/USBR/DROAub/GlenCanyonDamPenstockWithdrawalCharacteristics2007to2008USBR.pdf>

This report eliminates some of the public confusion about exactly when and how operations at Glen Canyon Dam can safely be performed.

### **B.3. The Upper Colorado River Commission is distracted as shortage curtailments begin to arrive soon.**

Since the beginning of the 21st century, the declining natural flow of the Colorado River has actually exceeded the severity of previous mega-droughts in the Late Holocene Epoch. For example, this includes a mega-drought that occurred during an episode of global warming in the 9th century, and even during an episode of global cooling during the 16th century.<sup>5</sup>

Despite the rapid decline of reservoir storage in the CRB, the four states of the Upper Colorado River Division continue to focus all their attention on increasing their consumptive uses via new water development projects.

In 2006, the Upper Colorado River Division advocated for the implementation of a Depletion Schedule, and specifically to increase total consumption by 886,000 acre-feet to Year 2060.<sup>6</sup> Unfortunately, and by 2060, the natural flow of the CRB will not improve and this current mega-drought will extend well-beyond the 21st century. Chasing imaginary water in the CRB is a conversation that must be dismissed from all future agreements between the seven states and the federal government.

### **B.4. Operations at Hoover Dam**

#### **Eliminate the “structural deficit:” Transit losses to the points of diversion in Lower Basin Division must be counted as a consumptive use.**

The DROA plan for the Lower Basin of December 2021, and called the “500+ Plan” (greater than 500,000 acre-feet per year) was a false start, because the recent projection documents from Reclamation indicate the elevation of Lake Mead is still approaching the second and third shortage tiers. As we stated in our previous letter last month, the reduction of consumptive uses in the CRB must match the reductions in the 30-year average (2.44 million acre-feet).

## **CONCLUSION**

To support our petition to balance the water budget of the CRB, we reviewed the scientific literature that was published between 2007 and 2009 when Interim Guidelines was formalized and implemented. We will highlight two journals from this time-period:

- (1) A 2007 report by the National Academy of Sciences called: *Colorado River Basin Water Management: Evaluating and Adjusting to Hydroclimatic Variability*.<sup>7</sup>

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<sup>5</sup> Rapid intensification of the emerging Southwestern North American mega-drought in 2020–2021, 2022, Nature. <http://www.riversimulator.org/Resources/ClimateDocs/RapidIntensificationOfEmergingSWNAmegadrought2020to2021Williams2022.pdf>

<sup>6</sup> UB Depletion Schedule, 2007 Interim Guidelines. <http://www.riversimulator.org/Resources/Graphs/UpperBasinDepletionSchedule.pdf>

<sup>7</sup> Colorado River Basin Water Management: Evaluating and Adjusting to Hydroclimatic Variability; 2007, NAS. <http://www.riversimulator.org/Resources/NRC/NAS2007.pdf>

(2) A 2009 journal from Proceedings of the National Academy and called: *Sustainable water deliveries from the Colorado River in a changing climate.*<sup>8</sup>

Indeed, the solutions presented in these documents also petition the water managers to balance the water budget and to reduce consumptive uses in order to protect the living communities that depend on the Colorado River. Had this advice been heeded 13-years ago, it would not be necessary to renegotiate either 2007 Interim Guidelines or the documents of 2019 Drought Contingency Planning. Please do not dismiss this advice again.

Sincerely yours,

John Weisheit  
Living Rivers  
Colorado Riverkeeper

Jen Pelz  
WildEarth Guardians  
Rio Grande Waterkeeper

Zachary Frankel  
Utah Rivers Council

Robin Silver  
Center for Biological Diversity

Kyle Roerink  
Great Basin Water Network  
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<sup>8</sup> Sustainable water deliveries from the Colorado River in a changing climate; 2009, PNAS.  
<http://www.riversimulator.org/Resources/ClimateDocs/PierceBarnett2009.pdf>