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*Comments on preparation of a Supplemental Environmental Impact Statement for 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations For Lake Powell and Lake Mead*

Sent via email to [CRinterimops@usbr.gov](mailto:CRinterimops@usbr.gov)

Reclamation 2007 Interim Guidelines SEIS Project Manager  
Upper Colorado Basin Region, 125 South State Street, Suite 8100  
Salt Lake City  
Utah 84138

Dear SEIS Project Manager -

I thank you for this opportunity to contribute my suggestions to your efforts to save the Colorado River Basin and the economy and culture of the Western United States from the risk of catastrophe. What is at stake here is no less than that – the fate of this beloved region.

We as a community have made mistakes in managing the Colorado River, and we are now at the mercy of those mistakes. We cannot undo them, but we must learn from them.

The heart of our mistakes is this: we have obeyed a Law of the River that, year after year, permitted us to remove more water from the Colorado River than nature provided.

We now understand, to our great regret and peril, that the law is an ass.

As reservoirs reach critical elevations, we must be willing, if needed, to manage the Colorado River as an inflow-outflow system: the amount we take out for our communities' uses cannot continue to exceed the amount nature puts in.

My proposal, which I hope might be considered in your analysis, is four-fold

- sharply curtail water use in the Lower Colorado River Basin through a restructuring of section 2D of the 2007 Interim Guidelines, immediately;
- structure the Lower Basin cuts in a way that even deeper reductions *shall* be made if the hydrology demands it;
- adjust the framework for calculating releases from Glen Canyon Dam in order to protect critical elevations at the dam and, more importantly, begin refilling the reservoir;

- create a framework that leaves the door open for additional contributions from water users in the Upper Basin and Mexico toward the shared goal of saving the system and the West.

## The problem

At least a dozen years ago, the Bureau of Reclamation began decorating its presentations with a slide that would be repeated in various forms in ensuing years. It showed what came to be known as “the structural deficit”<sup>1</sup> – the 1.2 million acre foot imbalance between the Upper Colorado River Basin’s deliveries from Lake Powell and the Lower Colorado River Basin’s use of water from Lake Mead. By failing to consider evaporation and system losses, the Supreme Court pointed the river’s management bus toward a ditch. In the years since, we were unable to grab the wheel and turn it. We are now in that ditch.

Modeling done in the years that followed suggested that the 2007 Interim Guidelines – the rules at issue again today in this Supplemental Environmental Impact Statement – were insufficient to protect the Colorado River system from crashing.<sup>2</sup>

An agreement calling for additional reductions, the “Drought Contingency Plan”, negotiated in the ensuing years but not signed until 2019, was similarly insufficient. Scenarios from Reclamation’s modelers presented during the agency’s Nov. 29 and Dec. 2, 2022, Supplemental Environmental Impact Statement briefings show that, under a credible low flow scenario (responsive to the changes in the climate that we have seen in the last two decades), elevations at Lake Powell could drop by summer 2023 below elevation 3,490. Absent steps to reduce Lake Powell releases to prevent that, Reclamation would be forced to use Glen Canyon Dam’s “river outlets”, which were not designed for sustained operations.<sup>3</sup>

Avoiding those risks by decreasing releases from Glen Canyon Dam would then, under this modeling scenario, send Lake Mead into free fall – to “dead pool”, the point at which the only water that leaves the reservoir is the amount flowing in - within two years. At that point hydrologic reality will dictate

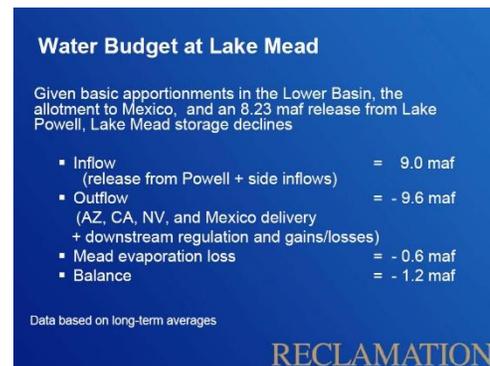


Figure 1 Fleck, May 2010; River Beat: Why is Lake Mead Dropping?; <https://www.inkstain.net/2010/05/river-beat-why-is-lake-mead-dropping/>

<sup>1</sup> Kuhn, Eric, and John Fleck. *Science be Dammed: how ignoring inconvenient science drained the Colorado River*. University of Arizona Press, 2019; p. 7

<sup>2</sup> *ibid.*, p. 205-07

<sup>3</sup> Comments by Assistant Secretary of Interior Tanya Trujillo, Wallace Stegner Center Symposium, March 17, 2022

releases to water users in the Lower Basin – municipalities, tribes, farm communities, and Mexico – far less than contemplated in Section 2D of the 2007 Interim guidelines.

I detail my specific suggested revisions in detail below, but in narrative form, I ask that you analyze the following possible changes to the Colorado River’s operation:

### Suggested Actions

#### Lake Powell Releases

The current “Mid-Elevation Release Tier” and “Lower Elevation Release Tier” should be replaced with a single “balancing tier” beginning at elevation 3,575 in Lake Powell. Below that point, Reclamation should “balance” the active storage in Lake Mead and Lake Powell, where “active storage” is redefined as the total available storage above elevation 3,515 in Lake Powell and 975 in Lake Mead – in each case, preserving 25 feet of risk mitigation water above minimum power pool in each reservoir.

Mead and Powell would then rise and fall together based on hydrology and use.

Importantly, there will be no minimum Powell release set in the new guideline – the risk of bad hydrology would be shared equally between the two basins.

Other numbers could be chosen for the elevations in Mead and Powell to protect, reflecting tradeoffs. Higher elevations would require cutting uses more now to protect against future risk. Lower elevations would trade allow more use now, at the expense of creating greater risk later.

#### Lake Mead Releases

Accepting the reality of the old “structural deficit” slide requires the immediate reduction of 1.2 million acre feet in use by the Lower Basin states, *now*. But the slide’s analysis falls short, presuming the river can continue to deliver 9 million acre feet per year in Lee Ferry flows and side inflows between Glen Canyon Dam and Lake Mead. We can no longer rely on that.

I recommend a release table that reduces the allocation available to the Lower Basin States by 1.5 million acre feet, to be shared proportionally by the three basin states relative to their full Arizona v. California allocation.

- California: 3.52 million acre feet
- Arizona: 2.24 million acre feet
- Nevada: 240,000 acre feet

As Lake Mead drops, the allocations would be reduced by the amount already negotiated by the states in the Interim Guidelines and Drought Contingency Plan. Should Lake Mead rise above elevation 1,125, the allocations would revert to their normal levels. Below that point, the Secretary would make a finding

under the 2006 Supreme Court Decree in the case of Arizona v. California that insufficient mainstream water is available to satisfy annual consumptive use of 7,500,000 in the Lower Basin states.

elevation	total	CA	AZ	NV
>1125	7.5	4.4	2.8	0.3
1125-1075	6.00	3.52	2.24	0.24
1075-1050	5.67	3.52	1.92	0.23
1050-1025	5.38	3.32	1.84	0.22
1025-1000	4.90	3.17	1.52	0.21
<1000	4.00	2.35	1.49	0.16

To be clear, this proposal if implemented will help guard against Lake Mead ever dropping into those lowest tiers. But we must not repeat a crucial mistake of the past. We need to know, today, what our plan is if, despite our best efforts, the hydrology takes us there.

#### Upper Basin Contribution

By permitting annual Lee Ferry releases to drop as far as it does, this plan creates a real risk for the states of the Upper Colorado River Basin that flows at Lee Ferry could drop below 82.5 million acre feet over a 10 year period, or even 75 million acre feet over a ten year period. That creates real risk of Colorado River Compact litigation that, depending on its outcome, might force curtailment of post-Compact rights in the Upper Basin.

In its NEPA analysis, Reclamation must model this risk.

In focusing on Sections 2D, 6C, 6D, and 7C of the Interim Guidelines, the Department of Interior leaves little space for imposing mandatory reductions in the Upper Basin. But the scenario outlined above or something very much like it - inevitable given hydrologic reality - suggests space for the sort of “grand bargain” that has been talked about in the basin for years: an Upper Basin contribution of water use reductions of some sort in return for a Lower Basin agreement not to pursue litigation as Lee Ferry deliveries fall.<sup>4</sup>

Both Upper and Lower Basin have strong incentives for a “consensus plan”, as encouraged by the Department of Interior, that would include concessions on both sides and would serve the basin well.

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<sup>4</sup> Kuhn, 2012, Risk Management Strategies for the Upper Colorado River Basin

Given the clear advantages of such a solution, I ask that you model the effect of a variety of hypothetical Upper Basin contributions ranging from 100,000 to 500,000 acre feet per year in foregone consumptive use to the resulting storage balances in Lake Powell and Lake Mead under a variety of hydrologies.

### Impact on the Tribes

The analysis to be done in support of this decision must include analyses of the impact of the alternatives on the 30 Native American Sovereigns in the Colorado River Basin, including but not limited to those tribes with quantified and fully used water rights, those with water rights that have been quantified but not yet put to use, and those whose rights have not yet been quantified.

### The Specifics

Rewrite Section 2.A of the interim Guidelines as follows:

1. Lake Mead above elevation 1,125 and below elevation 1,145

In Years when Lake Mead elevation is projected to be above 1,125 and below elevation 1,145 on January 1, the Secretary shall determine either a Normal Condition, or, under Section 2.B.5, an ICS Surplus Condition.

Rewrite Section 2.D.1 of the Interim Guidelines as follows:

- a. In years when Lake Mead content is projected to be at or below elevation 1,125 feet and at or above 1,075 feet on January 1, a quantity of 6 maf shall be apportioned for consumptive use in the Lower Division States of which 2.24 maf shall be apportioned for use in Arizona and 240,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 3.52 maf shall be apportioned for use in California.
- b. In years when Lake Mead content is projected to be at or below elevation 1,075 feet and at or above 1,050 feet on January 1, a quantity of 5.67 maf shall be apportioned for consumptive use in the Lower Division States of which 1.92 maf shall be apportioned for use in Arizona and 230,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 3.52 maf shall be apportioned for use in California.
- c. In years when Lake Mead content is projected to be at or below elevation 1,050 feet and at or above 1,025 feet on January 1, a quantity of 5.38 maf shall be apportioned for consumptive use in the Lower Division States of which 1.84 maf shall be apportioned for use in Arizona and 220,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 3.17 maf shall be apportioned for use in California.

- d. In years when Lake Mead content is projected to be at or below elevation 1,025 feet and at or above 1,000 feet on January 1, a quantity of 4.90 maf shall be apportioned for consumptive use in the Lower Division States of which 1.52 maf shall be apportioned for use in Arizona and 210,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 3.17 maf shall be apportioned for use in California.
- e. In years when Lake Mead content is projected to be at or below elevation 1,000 feet, a quantity of 4 maf shall be apportioned for consumptive use in the Lower Division States of which 1.52 maf shall be apportioned for use in Arizona and 210,000 af shall be apportioned for use in Nevada in accordance with the Arizona-Nevada Shortage Sharing Agreement dated February 9, 2007, and 2.35 maf shall be apportioned for use in California.

Rewrite Section 6.C of the Interim Guidelines as follows:

1. In Water Years when the projected Jan. 1 Lake Powell elevation is below 3,575 feet, the Secretary shall balance the contents of Lake Mead and Lake Powell, where the balancing volume is determined by the total storage in Lake Mead above elevation 975 feet and the balancing volume in Lake Powell is the total storage above elevation 3,515 feet.

Eliminate Section 6.D of the Interim Guidelines

Rewrite the final sentence of Section 7.C. of the Interim Guidelines as follows (additional language underline)

For Lake Mead, the Secretary in any mid-year review for the current Year to allow for additional or reduced deliveries from Lake Mead pursuant to Section 2 of these guidelines to prevent Lake Mead from dropping below elevation 975 in the remainder of the year.

## Conclusion

I have long argued that it does not matter what I, a writer and quasi-academic, thinks should be done to solve the problems of the Colorado River Basin. What matters, I have argued, is what can emerge from the consensus of the basin water users.

But that consensus has failed us, left us with wrecked speedboats emerging from the depths of Lake Mead as the reservoir drops away from its old shorelines.

That consensus process has left us with reasonable near-term projections from Reclamation's scientists of reservoirs reaching dead pool if we see a repeat of dry years we all have already lived through.

I still believe a consensus plan from the States is a preferred alternative. But a credible alternative plan will be needed – to encourage the States to come up with their own, better plan. And to save the Colorado River if they do not.

Title I of the National Environmental Policy Act nicely frames the task ahead. It calls on us to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations”. That is our charge at this critical moment.

Sincerely,

A handwritten signature in black ink that reads "John Fleck". The signature is written in a cursive, slightly slanted style.

John Fleck