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Subject: Post-2026 Operational Guidelines Draft EIS
Comments by Grand Canyon Private Boaters' Association

February 18, 2026

Grand Canyon Private Boaters Association (GCPBA) is a non-profit 501(c)3 organization. Established in 1996, we advocate for the non-commercial river enthusiast to have the opportunity to experience a float trip through the Grand Canyon as well as protect the resource.

Given that our mission, in part, is to protect the health of the river corridor, we offer the following comments:

Of the 4 alternatives, the supply driven alternative is best suited for boating as there is an 86% chance of meeting or exceeding the minimum flow of 8,000 cfs between Glen Canyon Dam and Lake Mead.

Chapter 1 Purpose and Need

In all of the alternatives, the operation of Lake Powell is limited by not considering the 4 million acre-feet of inactive storage. The reference to "safe guarding critical infrastructure " is false. There is no critical infrastructure. One can only guess that this refers to safe guarding hydropower production. The 4 million acre feet of storage that is thereby negated is on par with the level of cutbacks associated with the alternatives shown below;

- 2.5 Basic Coordination Alternative - 1.48 maf
- 2.6 Enhanced Coordination Alternative - 3.0 maf
- 2.7. Maximum Operational flexibility Alternative - 4.0 maf
- 2.8. Supply Driven Alternative - 2.1 maf

Hydropower is not an essential need for prudent management of the Basin. When legislation was enacted in 1956 to authorize the Colorado River Storage Project (CRSP), "...generation of hydroelectric power was *incident* to the delivery of water." This was reiterated in 1968 in the Colorado River Basin Project Act. The marketing/selling of power was transferred from the Dep't of Interior to the Dep't of Energy/Western Area Power Administration (WAPA) in 1977. WAPA's mission is to sell power on the open market. It is, and should not be, to dictate the operation of Lake Powell. It is noted that WAPA is one of several federal agencies that participated in the preparation of the Draft EIS.

Glen Canyon Dam's hydropower generation equates to 0.3% of the Western Power Grid's capacity of 286,000 MW. Despite the ominous drumbeat by special interests, the lights will stay on and the sky will not fall should power production be paused for any length of time.

The "needs" in this chapter begs the question: Is power production greater than the need for water delivery?

Chapter 1.2 Proposed Federal Action

One of the three actions to develop operating guidelines consists of emergency response operations at upstream CRSP reservoirs to protect critical infrastructure at Glen Canyon Dam. Thus, producing hydropower is no longer incident - not producing it constitutes an emergency. Upper Basin States will be required to conserve to ensure hydro power production - which they don't benefit from.

No mention is made of the alternatives evaluated for low-head hydro modifications. This \$2 million evaluation was a component of the \$200 million Reclamation received to address drought conditions in the West - Public Law 117-43. ⁽¹⁾

As described in TA 15.1.3, the river outlet work conduits have recently been relined - replacement or repair of the hollow-jet valves is under consideration. Should Lake Powell be operated below Elevation 3490, the river outlet works are capable of delivering water at a maximum rate of 15,000 cfs.

In subsection 8.4.1 of Chapter 1 Critical Infrastructure..... the last sentence in the statement below is utter nonsense.

"Infrastructure concerns associated with extended operations through the river outlet works include damage to the outlet works pipes at low reservoir elevations, erosion at the downstream base of the dam from outlet works operation, and the potential for additional unknown issues from operating the outlet works for extended periods. Any one of these factors could compromise the safety and stability of Glen Canyon Dam and affect the ability to meet critical downstream water supply needs."

The safety of Glen Canyon Dam is in no way jeopardized by releases thru the river outlet works. What engineering analysis has been conducted to conclude that operation of the river outlet works will jeopardize safety? If so, for any upcoming high flow experiments, the emergency action plan should be initiated and the canyon evacuated.

Chapter 1 Scope

The scope of the DEIS is too limited given that the analyses consider a linear interpolation of hydrologic conditions and conservation out to 2060. If projections are carried out 34 years into the future, the following should be acknowledged and considered in the scope:

1. Reservoir yield of Lake Powell does not warrant Glen Canyon Dam's height and 8 turbines. Given that it took 17 years to fill the reservoir should be an indicator that the design is inappropriate. The turbine intakes are at the wrong elevation - too high. The Technical Record of Design and Construction ⁽²⁾ noted the extreme variation of flows and corresponding possibility of a prolonged drought. The fundamentals of water resource engineering were obviously not considered.

¹ Bureau of Reclamation, Glen Canyon Dam, Low-Head Hydro Modifications, <https://shorturl.at/ptwX5>

² United States Department of Interior, USBR, Technical Record of Design and Construction, Denver, Colorado, December 1970

³ Milbrandt, A, Heimiller, D., Schwabe, P., 2018, Techno-Economic Renewable Energy Potential on Tribal Lands, NREL/TP- 6A20-70807, <https://shorturl.at/cCQ46>

⁴ Wyatt, J., Kristian, M. The True Land Footprint of Solar Energy, Sept. 2021, Great Plains Institute, <https://shorturl.at/cejT6>

⁵ Vrymoed, J, What to do with Glen Canyon Dam - An Engineer's Perspective, Dec. 29, 2023 - GCPBA.org

2. The Low Head Hydro evaluation⁽¹⁾ listed solar power as an option to mitigate loss of hydro power production. Studies ^(3, 4) have shown solar power to be effective - low cost, generating power at peak hours.
3. The abandonment of the river bypass tunnels by filling them with concrete showed a complete lack of foresight. Construction of inlet towers to provide a host of operational and ecological benefits is highlighted in the study by Vrymoed⁽⁵⁾

Chapter 2.9 Alternatives Considered

The statement "*Critical ecosystem needs were considered in the development of every action alternative. However, this Ecosystem Alternative was not advanced because it does not fully resolve the operational and legal requirements for managing Colorado River water.*"

The veracity of this statement is questionable because it ignores the 1992 Grand Canyon Protection Act - an applicable federal law - a legal requirement for managing Colorado River Water.

Other alternatives, such as a one-dam alternative, are dismissed in a rather cheeky manner. These are portrayed as all or nothing alternatives. Glen Canyon Dam doesn't require decommissioning to operate Lake Powell at levels below Elevation 3490. The CRSP authorized its construction, not how it should be operated. Additionally, the legislation authorized the construction of appurtenant structures. The vast majority of dams have inlet towers. Towers would greatly increase its degree of operational flexibility - these could have been combined with the river bypass tunnels. As a consequence, the dead pool and inactive storages negate 2 and 4 million acre feet of water, respectively for a total of 6 million acre feet of potential water delivery. Similarly, bypass tunnels are dismissed. Reclamation considered bypass tunnels as a low head hydro option ⁽¹⁾

It would be prudent for Reclamation to consider structural changes to Glen Canyon Dam as its design is inadequate to address long periods of drought. As an example of structural changes, Southern Nevada Water Authority addressed drought conditions by construction of a \$800 million third intake at Lake Mead.

It is understood the draft EIS is singularly focused on reservoir levels. At this point, without broadening the focus, the effort to satisfy NEPA is simply kicking the can down road - to the detriment of water delivery and the health of the river corridor.

The foregoing comments are based on my experience as past principal engineer with the California Department of Water Resources and consultant to the US Army Corps regarding their most critical dams.

Respectfully,



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President,
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