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PO Box 466 • Moab, UT 84532 • 435-259-1063

Bureau of Reclamation
Attn: LTEMP SEIS Project Manager
125 South State Street, Suite 800
Salt Lake City, UT 84138

November 3, 2023

Sent via eMail: LTEMPSEIS@usbr.gov

RE: Bureau of Reclamation (Reclamation) requests public comments to prepare a Supplemental Environmental Impact Statement (SEIS) to the December 2016 Record of Decision for the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) Final Environmental Impact Statement and will analyze flow options to prevent smallmouth bass and other warm water invasive nonnative fish from establishing below Glen Canyon Dam (by preventing additional spawning) and will analyze new information regarding the sediment accounting window associated with the LTEMP High-Flow Experiment (HFE) protocol.[1]

Part One: Introduction

This comment letter is provided by Center for Biological Diversity, Colorado Riverkeeper, Glen Canyon Institute, Great Basin Water Network, Great Basin Waterkeeper, Las Vegas Water Defender, Living Rivers, River Runners for Wilderness, Save The Colorado, and Utah Rivers Council.

Collectively, our organizations, members, staff and trustees have provided comments on the operation of Glen Canyon Dam (GCD) since 1989 when a Notice of Intent[2] was published to develop the first Environmental Impact Statement for operations at Glen Canyon Dam. The scoping report[3] for that original EIS highlighted that 71,000 unique comments from the public were received by April of 1990. We now know that 71,000 people will not be commenting for this SEIS because of the persistent state of

[1] Notice of Intent 2023: https://www.federalregister.gov/documents/2023/10/04/2023-22077/notice-of-intent-to-prepare-a-supplemental-environmental-impact-statement-for-the-december-2016

[2] Notice of Intent 1989: http://www.riversimulator.org/Resources/USBR/LTEMP/SEIS/Scoping/FR27October1989GlenCanyonDamEIS.pdf

[3] Scoping Report 1990: http://www.riversimulator.org/Resources/USBR/LTEMP/SEIS/Scoping/GCD1990EIScopingReportOcr.pdf

recalcitrance[4] demonstrated by the water managers of the Colorado River Basin (CRB). The reduction in public participation is a failure, signifying that current river management has demoralized the goodwill of the general public for parts of five decades.

The best example of this deliberate recalcitrance by water managers toward the public is best demonstrated by the last sentence from this 2002 letter to Reclamation from the Upper Colorado River Commission which is provided here:[5]

> *Therefore, the Upper Colorado River Commission strongly believes that through the Annual Operating Plan process and under the general guidance of the Operating Criteria, operational needs of the Colorado River reservoirs are being accommodated without and changes to the existing 1970 Operating Criteria. In addition we see no need for public meetings to review Operating Criteria that are working satisfactorily at this time.*

Because of the present and failed state of reservoir storage in the CRB, and the looming jeopardy toward federally protected fish species in Grand Canyon National Park, we submit that long-term solutions submitted by citizens is what Reclamation must adopt for this process of developing new operating criteria for GCD in this current epoch of advancing and debilitating climate change.

The documentation of agency recalcitrance is detailed by John Weisheit and Robert Lippman in a web-based post dated October 3, 2008 and entitled “A Legal History of Operations at Glen Canyon Dam.” We invite the readers of our scoping document to analyze the merits of this post located at the following url: http://www.onthecolorado.com/articles.cfm?mode=detail&id=1223044403735

Part Two: Negligence by Reclamation to adopt new operating criteria for Glen Canyon Dam in a timely and prudent manner to avoid jeopardy to biological and cultural assets in Grand Canyon National Park. A failure of the authorized agency to be precautionary and adaptive to the long-term monitoring programs mandated by the Grand Canyon Protection Act of 1992.

The development of this Supplemental EIS in 2023 means the Final EIS of 2016 (a 20-year management plan), was inadequate before the first day of its implementation, because basin-wide discussions about avoiding system shortages as a result of climate

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[4] Robert Lippman, 1990: Agency Recalcitrance and Evasion Regarding Compliance with NEPA Relating to GC Dam Operations: A Documented Need for Congressional Intervention. http://www.riversimulator.org/Resources/Legal/GCD/1990RecalcitranceLippman.pdf

[5] Wayne Cook, Upper Colorado River Commission; 2002. http://www.riversimulator.org/Resources/UCRC/lrocUCRC2002.pdf

change were actually underway as early as February of 2014.[6] These discussions culminated five years later with federal and state agreements known as 2019 Drought Contingency Planning.[7] Shortages in the system were declared by the Secretary of Interior in August of 2021.[8]

Therefore, this Supplemental EIS process of 2023 must take a hard look at the following missteps that occurred in the last nine years:

- To the extent that Reclamation made a decision not to prepare a precautionary SEIS in a timely manner, and that this decision was contrary to the guidelines of the National Environmental Policy Act (NEPA). This inaction demonstrates our argument that Reclamation and the seven states have not upheld their public interest obligations.
- The 2016 analysis relied upon incomplete and outdated data in regards to the impacts of climate change.
- Reclamation relied solely upon historic flow predictions rather than also considering climate change flow predictions to Year 2036.
- The purpose and need statement unreasonably omitted climate change in favor of a nonexistent obligation to produce hydroelectric power.
- The Final EIS included only near-identical alternatives and failed to consider any alternative that could potentially address the realities of future climate change.

Part Three: Submission of our administrative record in regards to providing public comments to Reclamation and specifically about operations at Glen Canyon Dam.

In consideration of the heavy lifting that we have already performed in providing public comments to Reclamation, we will again submit all our NEPA letters about operations at Glen Canyon Dam in the following table (next page):

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[6] Memorandum to State of Colorado, John McClow; 2014: http://www.riversimulator.org/Resources/States/McClowCWCBMemoToStakeholdersFeb2014.pdf

[7] Colorado River Basin Drought Contingency Documents, Reclamation; 2019: http://www.riversimulator.org/Resources/USBR/LTEMP/SEIS/Scoping/ColoradoRiverBasinDroughtContingencyPlans2019Reclamation.pdf

[8] Arizona Department of Water Resources, 2021: http://www.riversimulator.org/Resources/USBR/LTEMP/SEIS/Scoping/FactSheetColoradoRiverShortageAugust2021AdWR.pdf

January 18, 2002 - Comments on Adaptive Management Working Group and proposed Strategic Plan	http://www.livingrivers.org/archives/article.cfm?NewsID=234
September 25, 2002 - Requesting expanded public participation for review of Glen Canyon Dam experimental flows	http://www.livingrivers.org/archives/article.cfm?NewsID=368
October 30, 2002 - Comments on Glen Canyon Dam experimental flows	http://www.livingrivers.org/archives/article.cfm?NewsID=390
August 11, 2003 - Proposed modification to mechanical removal of non-native fish from the Colorado River in Grand Canyon	http://www.livingrivers.org/archives/article.cfm?NewsID=497
August 13, 2003 - Concerns regarding Glen Canyon Dam Adaptive Management Program (AMP).	http://www.livingrivers.org/archives/article.cfm?NewsID=496
March 3, 2004 - Letter to AMP calling for SEIS on Glen Canyon Dam	http://www.livingrivers.org/archives/article.cfm?NewsID=567
March 17, 2004 - Letter of extension for scoping period of temperature control device (TCD).	http://www.livingrivers.org/archives/article.cfm?NewsID=576
April 2, 2004 - EIS letter for temperature control device to Reclamation	http://www.livingrivers.org/archives/article.cfm?NewsID=578
August 9, 2004 - Demanding action to correct failing federal program to recover Grand Canyon native fish.	http://www.livingrivers.org/archives/article.cfm?NewsID=613
November 16, 2004 - Comments for Supplemental EA for experimental flows in Grand Canyon	http://www.livingrivers.org/archives/article.cfm?NewsID=634
November 8, 2005 - 60-day Notice	https://www.biologicaldiversity.org/news/press_releases/glencanyon11-8-05.pdf
February 28, 2007 - Letter to Secretary Kempthorne about Long-term Experimental Plan (LTEP) EIS	http://www.livingrivers.org/archives/article.cfm?NewsID=759
February 22, 2008 - Comments on EA for operations at Glen Canyon Dam 2008 - 2012	http://www.livingrivers.org/archives/article.cfm?NewsID=799
January 12, 2012 - Scoping for LTEMP	http://www.riversimulator.org/Resources/NGO/LTEMP/LTEMPeisCommentsLivingRivers31Jan2012.pdf
April 2, 2012 - Letter to Secretary Salazar (LTEMP)	http://www.livingrivers.org/pdfs/LRtoSalazar2April2012.pdf

May 27, 2012 - Letter to Secretary Salazar (LTEMP)	http://www.livingrivers.org/pdfs/LRtoSalazar27May2012.pdf
May 9, 2016 - Comments for LTEMP DEIS	http://www.livingrivers.org/pdfs/LRcommentsGCDltemp9May2016.pdf
October 10, 2019 - Complaint filed in Federal District Court for an SEIS	http://www.riversimulator.org/Resources/Legal/Earthwise/LTEMP/ComplaintBySTC.CBD.LR.LTEMP.ROD.2019.pdf

Part Four: Glen Canyon Dam (GCD) is not engineered for a water delivery system that includes the impediments of maximum human consumption under conditions of global warming that will persist for time periods that will last for multiple centuries. To protect downstream resources and jeopardy to living communities, Reclamation must begin discussions about decommissioning this facility.

- Sea level elevations began to rise in the 1880s, indicating a trend of thermal expansion and the melting of continental ice.[9]
- The geologic bedrock at Glen Canyon and the climate of the Colorado River Basin is problematic for a reservoir that can store 27 million acre-feet of water, entrained sediment and decaying organic materials.
- In 1983 it was discovered that the outlet works at GCD could not safely handle a four-month snow melt of 15 million acre-feet, which induced property damage to people and businesses that occupy the floodplain below Davis Dam.[10]
- During the lifespan of this facility, the demand to safely bypass a five-month snowmelt in the range of 30 to 60 million acre-feet will arrive. This structure will fail and damage and destroy all critical infrastructure downstream and will inundate the structural depression at the Salton Trough (Salton Sea) for decades, which currently provides the nation with dependable supplies of fresh produce.[11]
- In 2015 (before the implementation of the LTEMP) it was discovered that non-native fish can safely bypass through the penstocks of GCD.[12]

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[9] Wikipedia, 2023: https://en.wikipedia.org/wiki/Past_sea_level#:~:text=Since 1880, the ocean began,cm in the 20th century.

[10] John D'Anna for Arizona Republic, 2019: http://www.riversimulator.org/2025Guidelines/News/2019/In1983PlywoodWasAllThatKeptGlenCanyonDamFromOverflowing2019dAnnaAzRep.pdf

[11] Dam Failure Inundation Study, 1998; Reclamation: http://www.riversimulator.org/Resources/USBR/GCDDamFailure.pdf

[12] GCD Adaptive Management Program, Wiki Web Site: https://gcdamp.com/index.php/Green_Sunfish_Page

- In 2022 it was determined that hydropower production would be seriously impaired at GCD should the snow melt of 2023 fail to provide adequate runoff.[13]
- Reservoir water seepage through the bedrock at the dam site is significant. The Upper Colorado River Commission's annual report of 2015 reports the gain in river flow below Glen Canyon Dam averages 153,000 acre-feet per year, which is 211 cubic feet per second. We understand that leakage is normal, but this amount is unacceptable. We request an explanation from Reclamation that addresses this concern we have about dam safety.[14]
- During episodes of significant water evacuation from Lake Powell since 1992, we have observed the degradation of the natural cementation of the sandstone formations of the Glen Canyon Group. For example, you can easily crush these rocks types without tools. Reclamation's chief engineer recognized this issue too, in an engineering report.[15] This natural incompetence of bedrock is a dam safety issue that Reclamation should explain to the public.
- Sediment storage in Lake Powell is often interpreted as increasing the lifespan of Hoover Dam, but this belief is deceptive. With each passing decade, there is less water storage and less capacity for flood control at Lake Powell. In other words, the issue isn't where the sediment is stored, the issue is when does sediment storage compromise the priority mandates of flood control and water storage? Reclamation must explain this issue to the public.
- Lastly, connectivity to the tributaries from the confluence of the Green and Colorado rivers to the basin-and-range country at Lake Mead is how you will solve all the threats to the endangered species of the Colorado River Basin. Give them the habitat and the food web that they need to flourish by removing Glen Canyon Dam.

Part Five: Conclusion

Thank you for this opportunity to share our concerns with the agencies and the public. Again, progress to attain sustainability and resiliency in the Colored River Basin can only be achieved when the seven states yield to the rights of nature.

Very truly yours,

John Weisheit, Living Rivers and Colorado Riverkeeper
Kyle Roerink, Great Basin Water Network and Great Basin Waterkeeper
Taylor McKinnon, Center for Biological Diversity

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[13] Press Release, 2022; Reclamtion: http://www.riversimulator.org/Resources/USBR/LTEMP/SEIS/Scoping/DOIannouncesActionsToProtectColoradoRiverSystem2022Reclamation.pdf

[14] UCRC annual report of 2015: http://www.riversimulator.org/Resources/UCRC/UpperBasinReport2015.pdf

[15] Design Features of Glen Canyon Dam, 1961; Ernest R. Schultz: http://www.riversimulator.org/Resources/USBR/GCDDesign.pdf

Eric Balken, Glen Canyon Institute
Tick Segerblom, Las Vegas Water Defender,
Tom Martin, River Runners for Wilderness
Gary Wockner, Save The Colorado
Zach Frankel, Utah Rivers Council