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Ms. Sarah Bucklin
Regional Environmental Coordinator
Bureau of Reclamation
125 South State Street
Room 8100
Salt Lake City, Utah 84138-1147

March 10, 2023

Sent via eMail to: gcd_smb_ea@usbr.gov & sbucklin@usbr.gov

Re: Environmental Assessment (EA) for Smallmouth Bass Flow Options from Glen Canyon Dam.

Dear Ms. Bucklin,

The following conservation organizations present public comments for the Environmental Assessment to implement water releases from Glen Canyon Dam (GCD) to disadvantage non-native smallmouth bass:

Living Rivers & Colorado Riverkeeper, Center for Biological Diversity, River Runners for Wilderness, Save The Colorado and Great Basin Water Network.

1.0 - Introduction

The Colorado River Basin (CRB) is currently suffering from the consequences of poor reservoir management, deliberate overconsumption of water resources, and exceptional regional aridity, all of which are exhausting the contents of reservoirs and aquifers.

Velocity currents, near the unscreened intakes for hydropower generation (penstocks) at GCD, has facilitated the entrainment of predatory smallmouth bass from Lake Powell Reservoir to the Colorado River below GCD. The suction from these currents arrive when the reservoir elevation approaches 3525 feet,¹ which happened last March in 2022, and again in December of 2022.

Therefore, it is not surprising that non-native fish will successfully bypass through penstock tubes and spinning turbines, and then inhabit the critical habitat below GCD, which was designated by the recovery program for non-native species that are either

¹ Penstock withdrawal characteristics; USBR, 2008: <http://www.riversimulator.org/2025Guidelines/USBR/DROAub/GlenCanyonDamPenstockWithdrawalCharacteristics2007to2008USBR.pdf>

threatened, endangered or extirpated. This discovery of invasive smallmouth bass below GCD occurred on July 1, 2022 by scientists from Grand Canyon Monitoring and Research Center.

The suction of water moving at high velocity through penstocks and river outlet tubes will continue to occur 75- to 80-percent of the time for the next 30- to 40-years, according to scenario planning documents located in the appendix called *Technical Report G* from the 2012 Colorado River Basin Supply and Demand Study, and prepared jointly by Reclamation and the seven states of the CRB.²

It should not be forgotten that the entrainment of non-native species through penstocks has been occurring for some time and passing other types of invasive species, such as quagga mussels and green sunfish. We do understand that this incident should have been foreseen and prevented by the members of the Glen Canyon Dam Adaptive Management Program (GCDAMP).

2.0 - Our Purpose

The organizations Save the Colorado, Living Rivers, and Center for Biological Diversity are currently engaged in litigation in regards to the Environmental Impact Statement and Record of Decision for the 2016 Long-term Experimental Management Plan (LTEMP) and specifically about reforming hydropower operations at Glen Canyon Dam under a paradigm of ongoing impacts caused by climate change.

The lawsuit challenges specific provisions within the National Environmental Policy Act (NEPA), which we outlined during scoping in January of 2012.³ Our incentive is to protect habitat for endangered species in a National Park and a World Heritage Site, and because human-caused climate change is accelerating the aridification of the Colorado Plateau and with significant consequences, as described above.

The current LTEMP 20-year plan is a **revision** of a previous 20-year framework, which Center for Biological Diversity and Living Rivers litigated in 2005,⁴ and specifically about how the preferred alternative was insufficient toward the recovery of endangered and extirpated fish species in Grand Canyon National Park.

² Reclamation Bureau, *Supra* note 19: <http://www.riversimulator.org/Resources/USBR/BasinStudy/Final/09TechnicalGReportSystemReliability.pdf>

³ 2012 LTEMP Scoping Comments by Living Rivers et al: <http://www.riversimulator.org/Resources/NGO/LTEMP/LTEMPeIsCommentsLivingRivers31Jan2012.pdf>

⁴ 60-day Notice: <http://www.riversimulator.org/Resources/Legal/CBD/CBDvBoR.pdf>

Additionally, there is a behavior problem that is impeding the ability of the stakeholders in the GCDAMP, and specifically to be precautionary and proactive about the fulfillment of their mission statement. References are in footnotes below: Feller; ⁵ Camacho; ⁶ Susskind et al. ⁷

We interpret the present smallmouth bass EA as another urgent action item for a program that is chartered to be timely and adaptive about the changes in this geography and its climate. Various discussions about the characteristics of reservoir water discharging through turbines and outlet works at GCD has been a perpetual conversation for parts of four decades now.

3.0 - Need: To immediately provide a new Environmental Impact Statement that vacates Glen Canyon Dam and that properly addresses the global impacts of climate change and respects the mission of the national park system.

This invasion of non-native species is a problem that won't be solved successfully. We would prefer to be wrong about this conclusion, but the primary purposes of this recovery program has entered a compromised position that is quite serious.

The recent decision to down list the humpback chub from the endangered position to the threatened position, was premature, and we strongly recommend that the biological assessment that will be prepared for this EA will address this topic and consider reinstating the humpback chub to its endangered status.

Though the endangered fish populations above Lake Powell Reservoir are not yet thriving, they do exist and are not yet extirpated. They exist in the upper basin because the sediment load in the Green, Colorado and San Juan rivers disadvantages non-native, hunt-by-sight predators, such as smallmouth bass. The food web is much more nutritious (by four times) than the carbon deprived ecosystem below Glen Canyon Dam.^{8 9} Warm water, sediment, leaf litter, driftwood, and abundant insect hatches is what will save these fish from extinction, and not the dials and switches at GCD.

It's time to decommission Glen Canyon Dam and let Nature and protected landscapes do what they do best—fill ecosystems with living things. Removing GCD will restore approximately 500 miles of historic habitat, and also reconnect all the tributary habitats that converge at Cataract, Glen, Marble and Grand canyons.

⁵ Feller; 2008: <http://www.riversimulator.org/Resources/GCDAMP/GCDAMPchronicle/FellerGlenCanyonArticle.pdf>

⁶ Camacho; 2008: <http://www.riversimulator.org/Resources/GCDAMP/GCDAMPchronicle/Camacho2008ampGCD.pdf>

⁷ Susskind et al.; 2010: <http://www.riversimulator.org/Resources/GCDAMP/GCDAMPchronicle/aCautionaryTaleColumbiaSusskind2010.pdf>

⁸ Driftwood—an alternative habitat for macroinvertebrates in a large desert river; 1999: <http://www.riversimulator.org/Resources/AquaticResearch/DriftwoodAnAlternativeHabitatHaden1999.pdf>

⁹ Benthic community structure of the Green and Colorado rivers through Canyonlands National Park, Utah, USA; 2003: <http://www.riversimulator.org/Resources/AquaticResearch/BenthicCommunityColoradoRiverCanyonlandsHaden2003.pdf>

4.0 - Conclusion:

Our collective ask to the technical and working groups of GCDAMP is to please ask the Secretary to initiate a new Environmental Impact Statement with a preferred alternative that decommissions Glen Canyon Dam. We also suggest that Glen Canyon National Recreation Area be re-designated as a national park with critical habitat for the recovery of all eight threatened and endangered fish species, and that the mission statement for the Adaptive Management Program be repurposed, accordingly.

Sincerely yours,

John Weisheit - Co-founder, Living Rivers
and Colorado Riverkeeper

Robin Silver - Co-founder, Center for
Biological Diversity

Gary Wockner - Executive Director for
Save the Colorado

Kyle Roerink - Executive Director, Great
Basin Water Network and Great Basin
Waterkeeper

Tom Martin - Program Director for River
Runners for Wilderness