March 25, 2024

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

Re: Comments on the Glen Canyon Dam Long-Term Experimental and Management Plan Draft Supplemental Environmental Impact Statement

On behalf of the National Parks Conservation Association (NPCA) and our 1.6 million members and supporters nationwide, thank you for the opportunity to submit comments concerning the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) Draft Supplemental Environmental Impact Statement (SEIS). Founded in 1919, NPCA is the leading citizen voice for the national parks. Our mission is to protect and enhance America's National Park System for present and future generations. We are a national nonprofit with headquarters in Washington, D.C. and 27 field offices across the country, including in Colorado River states such as Colorado, Utah, Wyoming, New Mexico, Arizona and California.

NPCA appreciates the Bureau of Reclamation's (BOR) proposed updates to the LTEMP final environmental impact statement through the consideration of the draft SEIS. This indicates that BOR is strongly considering the impact that drought, low runoff, aridification, climate change, and other threats are having to the Colorado River and in turn impacting the landscapes that depend on the river. Lake Powell's declines are influencing the greater river basin, with warmer water being released downstream from the dam. This warmer water has benefited invasive fish species and threatened the stability of the larger Grand Canyon ecosystem. NPCA agrees with BOR that "potential impacts from smallmouth bass pose an unacceptable risk to threatened and endangered species below the dam." It is imperative that the timeline include the implementation of actions by the summer of 2024 to ensure that the Colorado River ecosystem is protected in the face of increasing threats.

In order to meet the purpose and need of this plan, as well as compliance with all applicable laws, the final selected alternative must take swift action to ensure that the problem does not grow in the future. Central to this is BOR taking action that lowers temperatures in the Colorado River below the Glen Canyon Dam – this will help reduce the reproductive potential of invasive fish like smallmouth bass that have already managed to enter the lower Colorado River Basin. It is crucial to saving the ecosystem and protecting the native fish species like the humpback chub, which is protected under the Endangered Species Act (ESA).

NPCA supports the high-flow experiment (HFE) protocol adjustments that are common to all

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alternatives. This HFE adjustment would shift the release timing to the spring or fall, reflecting a natural cycle. This would allow for more HFEs to occur and optimize the success of these HFEs, with strong implications for shorelines and beaches. These HFEs also have implications for cultural sites along the Colorado River. This adjustment to HFE timing is crucial for adequately managing the river moving forward and NPCA agrees with BOR's decision to optimize the timing of HFEs.

NPCA believes that reservoir releases with various temperature and flow velocity combinations is the best solution to protect the native fish species and ecology of the Grand Canyon. This mirrors Alternative 3: Cool Mix with Flow Spikes, which NPCA believes would be the most effective in addressing the smallmouth bass invasion. Cooler water releases have the highest certainty of preventing the establishment of new warm-water invasive fish through lowering the water temperature. This should be done through the release of water from the bypass tunnels in combination with the release of water from the penstocks. Flow spikes are important to include in the action due to their ability "to disrupt spawning in margin habitats that may be warmer than the mainstream river" and benefit sediment. Sediment-enriched flows are needed to ensure the restoration of beaches, which is important not only for the ecology of the Grand Canyon but for the economy as well. Additionally, Grand Canyon tourism, including river guides, outfitters, and the 22,000 people who float down the river every year, will benefit from the restoration of beaches and sandbars along the Colorado River.

NPCA strongly urges against Alternative 1: No Action Alternative, which would result in the "continued warming of water and the spread of smallmouth bass and other warmwater nonnative species in the Colorado River below Glen Canyon Dam" if low levels at Lake Powell continue. Grand Canyon National Park is already dealing with invasive smallmouth bass entering the lower Colorado River Basin through Glen Canyon Dam because of low water levels and allowing warmer water from the upper levels of Lake Powell to pass through the penstocks. The National Park Service has done the best it can to respond to this crisis, but ultimately the BOR must take action to remedy this situation as required by the Grand Canyon Protection Act of 1992, as well as a legal obligation under the ESA, to not only prevent smallmouth bass from entering the Grand Canyon, but also from reproducing there.

Similarly, NPCA opposes Alternative 6: Non-Bypass Alternative. The modeling results for the Non-Bypass Alternative in years with warmer water levels is similar to the No Action Alternative, as lambda (the growth in smallmouth bass population) still remains over 1.0, indicating population increase. When the Non-Bypass Alternative is used, it could indicate a reduction in HFEs, which have significant implications for native fish and the shorelines along the river. This option is inadequate to address the severity of the issue and does not meet the purpose and need established for this planning effort. Any combination of tools should not include the Non-Bypass Alternative for the same reason of its ineffectiveness in reducing the smallmouth bass population growth.

We also request the BOR make corrections and clarifications to the LTEMP Draft SEIS, specifically regarding assumptions used to perform analyses for smallmouth bass flow alternatives. The hydrologic data for this SEIS appears to be taken from the 2023 Revised Supplemental Environmental Impact Statement for Near-term Colorado River Operations. This is based on a set of 30 hydrologic traces, most of which had cooler water temperatures (below 15.5 Celsius), meaning the tool(s) would not need to be used the vast majority of the time. However, the presentation of this modeling provides a misleading analysis for the alternatives as they were analyzed for effects based on averaging over all

traces, giving an inaccurate calculation of the actual beneficial impacts of using the tool(s) during the limited instances they would be used. This does not provide an accurate calculation for considering how these alternatives would influence smallmouth bass population as several alternatives have actions that only occur in warmer water levels. It is important for BOR to calculate and present future smallmouth bass population growth with modeling data that considers the warmer, lower water levels that have been more reflective of the immediate term at Lake Powell. This miscalculation affects sediment and dissolved oxygen (DO) as well, demonstrating the importance for BOR to correct it. NPCA recommends BOR corrects these assumptions to ensure that the analyses of the proposed alternatives and their effectiveness are as accurate as possible. Additionally, the presentation of lambda needs to be split up for the years that the bypass tool is being used, as this demonstrates the non-bypass doesn't work to address the problem before us and the purpose and need of the planning. It is essential that BOR accurately present this information to prevent unnecessary confusion and misinterpretation that feeds misinformation.

We understand that the use of the bypasses will have a minor impact on hydropower production. The assumptions to estimate how the alternatives affect hydropower appear sound in this SEIS indicating only a maximum 1-2% value reduction for hydropower. This estimated loss appears minimal and necessary as both the flow spikes and the use of the bypasses are essential for ecological restoration purposes and protecting the Grand Canyon's critical ecosystem. The minimal loss to hydropower is consistent with the Grand Canyon Protection Act of 1992, which mandates the dam must be operated in a manner consistent with protecting the natural and cultural resources of the Grand Canyon.

Lastly, lower water levels in Lake Powell are the main cause of the issue as they have allowed the warm-water smallmouth bass to pass through the Glen Canyon Dam. With projections of increased drought conditions, Lake Powell water levels need to be addressed on a broader, systemic level and long-term solutions, including passthrough prevention and more funding to control invasive fish populations, need to be considered to not only prevent the smallmouth bass from entering the Grand Canyon but to protect the entire Grand Canyon ecosystem. We look forward to ongoing participation in the BOR's National Environmental Policy Act Processes around Glen Canyon Dam and the Colorado River.

Thank you for your work and for the opportunity to comment. We look forward to continued engagement.

Sincerely,

Sanober Mirza
Arizona Program Manager