USFWS Comments In Response to USBR Stakeholder Meeting and Request for Stakeholder Input on Glen Canyon Dam/Smallmouth Bass Environmental Assessment

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Hello Sarah,

On behalf of the U. S. Fish and Wildlife Service (USFWS), we thank the U.S. Bureau of Reclamation (USBR) for holding a virtual information session on December 1, 2022, to describe its plans to move forward with an Environmental Assessment (EA) to develop operational alternatives that could help prevent the establishment of Smallmouth Bass (SMB) and other invasive warmwater fish. Given the recent concern regarding the presence and reproduction of SMB in the Lee's Ferry reach below Glen Canyon Dam (GCD), USBR worked with partners to identify four options for GCD release flows that could potentially disadvantage SMB establishment. The USFWS is providing feedback regarding our agency's perspectives on these potential plans to address this important issue herein. We acknowledge the changing conditions in the Colorado River below GCD. Specifically, the water being released from Lake Powell is much warmer that preceding years and that this pattern is associated with the entrainment and increased potential for establishment of warm-water species such as SMB below GCD. Below are three critical pieces of information for your consideration as you plan for this process in the coming year.

The USFWS sees this action as a necessary one given the current circumstance. The threat presented to the federally threatened Humpback Chub (HBC; *Gila cypha*) by SMB comes in the form of direct predation as documented within the Colorado River Basin upstream (USFWS 2018). Recent expansion of SMB in the Yampa River and elsewhere in the upper Colorado River basin poses a significant threat to small-bodied fishes throughout the system (Johnson et al. 2008) including HBC. Recent modeling by the Grand Canyon Monitoring and Research Center has predicted positive population growth of SMB in Glen, Marble and Grand canyons in the coming years (Yackulic and Eppehimer 2022). The USFWS thinks effects to HBC in the Grand Canyon are likely to be appreciable if SMB become established below Glen Canyon Dam. Establishment and expansion of invasive predators in the Grand Canyon represents a threat to HBC and has been established as one of the key monitoring metrics of recent compliance documents (e.g.. the Biological Opinion for the Long-term Experiment Management Plan (LTEMP) for Glen Canyon Dam [USFWS 2016]).

While the USFWS will review the EA in depth when it is released, we agree based on the information provided to this point that the proposed flow actions are likely to be effective. Stakeholders and scientists assessed and deliberated on how to respond to the increased and potential establishment of SMB for nearly a year though the forums of the Glen Canyon Dam Adaptive Management Program. The proposed flow actions represent the most likely effective options for preventing establishment of SMB below GCD and down to the Little Colorado River confluence. Therefore, these flow options are likely the best options for limiting the effects of SMB to HBC and other native fishes in Grand Canyon. These

proposed actions are time sensitive and should be available to implement in late spring/early summer 2023 or their success will likely be limited.

Additionally, in the EA, the USFWS strongly suggests that USBR plan for flexibility among action alternatives. Adaptive management is the guiding principle of the LTEMP and this EA would tier to the LTEMP Environmental Impact Statement. To adequately apply adaptive management, it is necessary to understand if actions are being effectively applied. This helps establish if this or other actions may be warranted, and thus we recommend USBR monitor the success of this effort from the start. Whether this monitoring is done through agreements with USGS, NPS, or by USBR we have some specific requests regarding how it could be most effectively applied. Monitoring both biological and physical resource (water temperature, flow, etc.) responses to the operational alternatives would provide valuable information for the partners in deciding on how to continue addressing this ensuing problem. Moreover, there is a range of potential success for the proposed alternatives. As such, we recommend that the targeted EA provide for flexibility to move from one alternative to another if it is found that the action undertaken is not having the intended effect of preventing SMB establishment; assuming there is an alternative action that has increased likelihood of success based on monitoring assessments following the evaluation.

Literature Cited

Johnson, B.M., P.J. Martinez, J.A. Hawkins, and K.R. Bestgen 2008. Ranking Predatory Threats by Nonnative Fishes in the Yampa River, Colorado, via Bioenergetics Modeling. North American Journal of Fisheries Management 28:1941–1953.

U.S. Fish and Wildlife Service. 2016. Biological Opinion for the Glen Canyon Dam Long-Term Experimental and Management Plan, Coconino County, Arizona.

U.S. Fish and Wildlife Service. 2018. Species status assessment for the Humpback Chub (Gila cypha). U.S. Fish and Wildlife Service, Mountain-Prairie Region (6), Denver, CO. Version 1.1.

Yackulic, C. B. and D. Eppehimer. 2022. Operational alternatives to address warmwater invasives. Presentation to the Glen Canyon Dam Adaptive Management Program.

Thank you,
Heather

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