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Officially known as the Zuni Tribe of the Zuni Indian Reservation

22 July 2024

Dr. Andrew Schulz, Chief
Grand Canyon Monitoring and Research Center
Southwest Biological Science Center
United States Geological Survey
2255 Gemini Drive
Flagstaff, Arizona 86001

RE: Zuni Comments on the Grand Canyon Monitoring and Research Center's Draft Triennial Work Plan and Budget for FY 2025-2027.

Dear Dr. Schulz,

This letter transmits the Pueblo of Zuni's official comments on the proposed draft "Glen Canyon Dam Adaptive Management Program Triennial Budget and Work Plan – Fiscal Years 2025-2027 (Second Draft)." The Zuni comments offered below are presented first through general comments regarding the proposed triennial work plan, followed by proposed project specific comments.

General Comments

The Pueblo of Zuni's first general comment is directed toward the insufficient consultation and consideration of Zuni Indigenous Knowledge (IK) as an aspect of best available science by the Grand Canyon Monitoring and Research Center (GCMRC) in the development of this triennial work plan. Please be advised that the Pueblo of Zuni expects fulfillment of attentive and meaningful government-to-government consultation obligations as directed to your agency by Congress in the Grand Canyon Protection Act (GCPA; Public Law 102-575 section 18959(c)(3)) and further reiterated and reinforced by President Biden's Executive Order (EO) 13175, issued January 26, 2021 (Consultation and Coordination with Indian Tribal Governments). This EO charges all executive departments and agencies with engaging in *regular, meaningful, and robust consultation with Tribal officials* in the development of Federal policies that have Tribal implications. GCMRC, in the development of this triennial work plan, has clearly failed to fulfill charges under directives of the GCPA and EO 13175, evidenced by GCMRC's request for "meetings" with Tribes at the eleventh hour or the day prior to the scheduled Technical Work Group (TWG) meeting in anticipation of a TWG recommendation to the Adaptive Management Work Group (AMWG) in support of the triennial work plan. These practices neither stand as reasonable efforts nor good faith attempts at consultation with Zuni. The Pueblo of Zuni considers appropriate, proper, and agency fulfillment of obligations for government-to-government consultation as those conducted through face-to-face meetings between the Zuni Governor and Tribal Council with a federal agency official who has decision-making authority for the agency. It remains troubling and a persisting sign and symptom of bad faith that after twenty-seven years of GCMRC producing out-year work plans, bi-annual work plans, and triennial work plans that your agency has not developed and implemented a more meaningful, engaged, inclusive, and collaborative process for involving the Grand Canyon Dam Adaptive Management Program (GCDAMP) Tribes in early developmental stages of these plans, including

the current triennial plan under consideration here. As these facts and ongoing elision of Tribal concerns and best available sciences are well documented in public sources (see: Allen and Gunderson 2011, Austin and Drye (011, Dongoske et al. 2010, Susskind et al. 2010, Austin et al. 2007, National Research Council 1996), it is the position of the Pueblo of Zuni that this is a clear ongoing and aggregating failure of GCMRC/USGS to fulfill trust responsibilities to the Pueblo of Zuni and a related failure to adhere to the Department of the Interior's (DOI) Tribal consultation policy. This policy in part states that "[the DOI] fundamentally believe that honoring our relationship with Tribes and upholding our trust and treaty responsibilities are paramount to our mission. We take our commitment to strengthening Tribal sovereignty and self-governance seriously, and we know that robust consultations are the cornerstones of Federal Indian policy" (www.doi.gov/priorities/tribal-consultation). To begin fulfilling agency obligations, the triennial work plan must holistically recognize and operationally address, as has recently the Advisory Council on Historic Preservation (ACHP), that federal agency trust responsibilities may encompass "all aspects of historic resources, including associated Indigenous Knowledge and other intangible values" (ACHP 2024:3).

Upon review of the draft triennial budget and work plan, it is apparent to Zuni that GCMRC is intentionally ignoring and avoiding meaningful incorporation of the recent memorandum from the Executive Office of the President, Office of Science and Technology Policy (OSTP) and the Council on Environmental Quality (CEQ), which states that IK is "an aspect of best available science" which can more "accurately capture the impact[s] ... on culturally or ecologically significant land[s]" (Prabhakar and Mallory 2022:19). This memorandum further acknowledges that:

Since Indigenous Knowledge is often unique and specific to a Tribe or Indigenous People, and may exist in a variety of forms, Agencies often lack the expertise to appropriately consider and apply Indigenous Knowledge. As a result, consultation and collaboration with Tribal Nations and Indigenous Peoples is critical to ensuring that Indigenous Knowledge is considered and applied in a manner that respects Tribal sovereignty and achieves mutually beneficial outcomes for Tribal and Indigenous communities [emphasis added; Prabhakar and Mallory 2022:2].

These Zuni concerns are reinforced by projects D and J as presented in the second draft of GCMRC's triennial work plan. These projects and the language and concepts used to describe them demonstrates GCMRC's lack of care of previously spoken and written Zuni positions and concerns for consideration in the broader GCDAMP and this draft triennial work plan. As such, the work plan is exceedingly deficient in expressing its understanding or consideration of the deep time and deep space Zuni IK science system and strong cultural, religious and heritage relationships that the Zuni people have to the place of emergence: the Grand Canyon, Colorado River, and all the non-human and more-than-human life forms contained therein.

Equally, it is the position of the Pueblo of Zuni that this draft triennial work plan is highly inadequate because of its lack of incorporation of President Biden's directives to federal agencies issued in the January 2021 Executive Order 13985 calling for material changes necessary to meaningfully and effectively advance equity and support by the federal government for underserved communities. Throughout the history of the GCDAMP, Zuni has repeatedly expressed our knowledge, values, and concerns for this sacred place and how these concerns have been treated as almost irrelevant to operational concerns by your agency and the DOI. In those rare instances when Zuni concerns are considered, they are treated as "after thoughts" and do not receive the appropriate considerations that a sovereign Tribal nation warrants and demands. This condemnation of the DOI was once again confirmed, reinforced, and amplified by the recent Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) Supplemental Environmental Impact Statement (SEIS) produced by the Bureau of Reclamation (BOR).

Similarly, this draft triennial work plan remains highly biased toward a narrow and highly limited Western science perspective of the Colorado River while completely ignoring the deep time and deep space insights of Zuni science and our understanding of the Grand Canyon and Colorado River ecosystem.

The Pueblo of Zuni directs GCMRC's attention to EO 14112, signed on December 6, 2023, by President Biden, demonstrating enhanced respect for Tribal sovereignty and a commitment to ushering in the next era of Tribal self-determination by ensuring greater pathways for Tribal sovereignty and the autonomy of Tribal Nations. This EO *affirms that Tribal self-governance is about the fundamental right of a people to determine their own destiny and to prosper and flourish on their own terms, including in economic, political, and cultural terms*. It also affirms that Tribal governments must be treated as permanent, equal, and vital parts of America's overlapping systems of governance. It directs federal agencies, in coordination with the White House Council on Native American Affairs, to redesign or administer programs in a manner that reflects trust in Tribal priorities and deference to Tribal decision-making, recognizing that Tribal governments bring *invaluable expertise in how to effectively meet the needs of their citizens and steward their ancestral homelands*. Moreover, EO 14091, "Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government," and signed by President Biden on February 16, 2023, builds upon EO 13985 to promote racial equity and support underserved communities by directing federal agencies to integrate equity into their planning and decision-making processes. Clearly, the development of this draft triennial work plan and budget was done in violation of the above EO charges and without any consideration toward or respect of the Pueblo of Zuni's knowledge sovereignty as holders of aspects of best available science.

Zuni representatives have been approached by GCMRC personnel who are advancing the idea of developing a multi-Tribal guide for the Colorado River through Grand Canyon. Zuni will not participate in this effort and does not support the blatant attempt at co-opting and commodifying Zuni IK for release to the greater public. The Pueblo of Zuni believes that this project will result in diluting the Puebloan deep time and deep space ancestral and cultural affiliation with this very sacred place through advocating a "pan-Indian" perspective that directly affronts Zuni political and knowledge sovereignty. This position by Zuni should be respected by GCMRC and GCMRC should cease insisting on producing this misguided river guide. Any continued effort by GCMRC to move this project forward will be viewed by the Pueblo of Zuni as another example of GCMRC's intentional deafness toward expressed Zuni concerns through privileging the white possessive in the GCDAMP; thereby, further contributing to the aggregating failure of GCMRC/USGS to fulfill trust responsibilities to the Pueblo of Zuni and a continuing failure to adhere to the Department of the Interior's (DOI) Tribal consultation policy.

Specific Comments on the Triennial Work Plan

- Project Element C.1. Ground-based Riparian Vegetation Monitoring – The Pueblo of Zuni identifies the necessity of GCMRC to include documenting the occurrence and frequency of datura (*Datura stramonium*) in this project because it is a culturally important plant for the Zuni community. Bighorn sheep (*Ovis canadensis*) presence and abundance in the Grand Canyon are also important issues for the Pueblo of Zuni that should be included in GCMRC's triennial work plan.
- Project Element D.1. Monitoring the Effects of Dam Operations on Archaeological sites – As expressed by Zuni repeatedly for many years, this project is limited in its understanding of the concept of integrity for historic properties under the National Historic Preservation Act (NHPA) and historic and cultural resources and the human environment under the National Environmental Policy Act (NEPA). The project has advocated and encouraged in-place preservation as the sole factor for integrity considerations and has not given any meaningful thought to various aspects of integrity from Zuni perspectives. In Zuni, historic properties

designated as “archaeological sites” are known as ancestral places more accurately characterized and understood as *Ino:de Heshoda:we*, or “ancient homes.” For Zuni, all *Ino:de Heshoda:we* are historically significant landmarks that serve as tangible contextual *entrance points* to various spatial dimensions and temporal layers of ongoing traditional religious and cultural importance and information recovery. Rather than isolated, standalone, or temporally distinct “archaeological” structures, aspects of integrity of *Ino:de Heshoda:we* are first and foremost defined by how these ancestral places are able to connect to, calibrate, and direct Zuni practices of movement, pause, and return. Repeated High Flow Experiments and the mechanical removal of vegetation to reduce obstruction in the path of wind-blown sand to cover these archaeological sites are adverse effects to Zuni associative values and aspects of integrity to these historic properties for Zuni communication with their ancestors. The negative effects imposed upon Zuni that result from covering the material expression of *Ino:de Heshoda:we* has never been given serious consideration by GCMRC or the BOR. To continue to insist that the sand covering the *Ino:de Heshoda:we* is a form of appropriate historic property preservation remains an unproven hypothesis and incomplete perspective.

- Project Element D.4. Pilot Study to Evaluate Potential to Extract Cultural and Ecological Information from Colorado River Deposits using eDNA, Phytoliths, and Pollen (New Study) – Zuni is opposed to this new study because it was created and presented as a “proposed collaboration with the NPS and interested Tribes” without actually first consulting with Zuni and determining whether or not Zuni was interested in participating and, if so, how this should influence project concepts, methodologies, and designs. The unilateral development of research projects by GCMRC with Tribal involvement is part of the stated problem with the GCDAMP expressed above in this response letter. It maintains and perpetuates the “white possessive” (Moreton-Robinson 2015) in this program at the expense of Zuni and likely other participant Tribes. Moreover, the “focus of this pilot project to examine the types of environmental information that potentially can be extracted from pre-dam sedimentary deposits with a focus on extracting ancient eDNA for the purpose of characterizing the prehistoric vegetation community and cultural landscape at various points in the past” is an example of the “disorganized thinking (i.e., schizophrenic)” prevalent in this program that has resulted in conflicting management objectives. This project attempts to recreate a past that may or may not reflect any actual reality, but is more a part of the National Park Service’s (NPS) effort to create a West (both environmentally and culturally) that never existed (see Kantor 2007). It also appears to ignore the fact that the Colorado River ecosystem has been dramatically changed as a result of the installation and operations of Glen Canyon Dam and the annual presence of 30,000+ visitors who raft through the Grand Canyon each year. From a Zuni perspective built from and based in deep time and deep space IK, this proposed project does nothing to improve or engage the Tribes in a more equitable role in this program by advancing IK and associated stewardship responsibilities with this sacred place. Rather, it continues to promote a non-Tribal perspective of a National Park that conveys a false historic narrative of a geography laden with settler colonial infrastructure and an ecosystem sought to intrusively, invasively, and through extraction maintain the privileges of non-Native American society and international public.
- Project Element D.5. Monitoring Petroglyphs and Pictographs with Photogrammetry and Lidar (New Study) – The Pueblo of Zuni is in support of this monitoring effort as long as there is no “interpretation” of the petroglyph or pictograph panels associated with the monitoring and that all gathered data and information will be provided to the Zuni government.
- Project Element E.1. Phosphorus Budgeting in the Colorado River; Project E.2. Rates and Composition of Primary Producers in the Colorado River; and Project Element E.4. Linking Ecosystem Metabolism to Higher Trophic Levels. – The Pueblo of Zuni strongly supports these proposed projects and their efforts to help establish healthy ecosystem producers.

- Project G: Humpback Chub Population Dynamic Throughout the Colorado River Ecosystem – Zuni supports the importance of the Humpback Chub and also the Razor Back Sucker. Zuni would like to receive information of the mortality rate of all native fish handled through research and monitoring associated with the GCDAMP. Zuni would also like to see razor back sucker receiving equal concern and attention as the Humpback chub.
 - Project Element G.8. Sampling of Springs in the Upper LCR (Unfunded) – Springs are very important to the Zuni because all water is interconnected and water is the most sacred element of and to all of life. The connections of water are formed and live through rhizomic underground waterways that link to surrounding oceans and find expression on the surface of Earth Mother in the forms of seeps, springs, lakes, rivers, washes, pools, and ponds. This information is important to the Pueblo of Zuni and information of springs may be one way of understanding and assessing the ongoing deleterious effects of colonial- and industrial-induced climate change.
- Project H: Salmonid (Trout) Research and Monitoring Project – Zuni supports all research and monitoring that has a goal of enhancing life and abundance of a species. Non-native/native dichotomy is not an important distinction to the Zuni Tribe, and has been used by BOR and NPS at times to impose violence on Zuni non-human and more-than-human kin, which has attendant deleterious health effects on the Zuni Reservation and the Zuni community.
- Project Element I.4. Modeling Population Dynamics and Improving Forecasting Tools for Smallmouth Bass and Other Nonnative Fishes (New Study); Project Element I.5. Evaluating the Efficacy of Flow Experiments in the LTEMP SEIS to Control Smallmouth Bass (New Study; Experimental Fund); and Project Element I.6. Determining Hatch Dates of Larval Smallmouth Bass in Response to LTEMP sEIS Flow Experiments (New Study; Experimental Fund) – Zuni shares the same concerns as expressed by the Western Area Power Administration. It is important for GCMRC and Reclamation to demonstrate the validity, soundness, and reliability of the hypotheses presented in the LTEMP SEIS.
- Project Element J.3. Tribal Resources Research (Unfunded) – The Pueblo of Zuni adamantly opposes this research effort. Even though it is labeled as “unfunded” it remains as a potential research project that is highly negligent and offensive because there has been no attempt by GCMRC to work with Zuni (and presumably the other Tribes) to develop this research effort in concept, methodology, and design. In spite of the 15-16 years that Zuni has expressed the Zuni Tribe's resource values and concerns with the GCDAMP, it now appears that non-Tribal people within GCMRC have found a way to co-opt and exploit these values through the guise of research by utilizing a “ecosystem services” model that is essentially grounded in the Western capitalistic system of placing an economic value on various aspects of the natural environment. This is antithetical to the Zuni stewardship philosophy, our Zuni Constitutional responsibilities, and our associated commitment to be stewards for all life. This project is another entangled example of the “white possessive” (Moreton-Robinson 2015) in the GCDAMP, the bad habits of its poor ultracrepidarian scientific practices, and its continuing dismissal of expressed Zuni IK and values. Zuni must underscore that Zuni and other Tribal values appear to only be considered when they can be manipulated, exploited, subsumed, and assimilated by the GCMRC for their own interests, values, and ends. The Pueblo of Zuni insists that this project be eliminated from this triennial work plan, and an inclusive and collaborative program directed by and in deference to Zuni IK Tribes be developed and funded for Zuni as knowledge and political sovereigns.

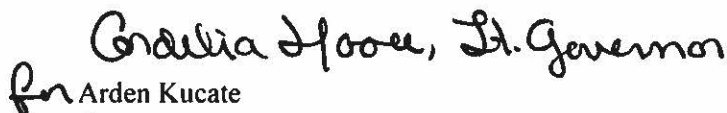
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- Propose Project Element J.4. – Zuni proposes including a project that evaluates the long-term effects of climate change on the Colorado River ecosystem through Grand Canyon because from Zuni IK this issue is not given sufficient attention and consideration in this program.
- Propose Project O – Funding for Zuni to take the lead in designing actionable ways of implementing Executive Order 13985 into the GCDAMP and the White House memorandum on IK.

Zuni reminds GCMRC that as a federally recognized, sovereign, self-determined, and self-governing Indian Tribe, the Zuni Tribe is a rights holder and more than a stakeholder in the GCDAMP. If you have any questions or need additional information, please do not hesitate to contact me at 505.782.7022 and Zuni Tribal Councilman Edward Wemytewa at 505.782.7021.

Sincerely,


for Arden Kucate
Governor

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Dr. Andrew Schultz, Chief, Grand Canyon Monitoring and Research Center

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