



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION IX**  
**75 Hawthorne Street**  
**San Francisco, CA 94105-3901**

December 19, 2022

Marcie Bainson  
U.S. Bureau of Reclamation  
Upper Colorado Basin Region  
125 South State Street, Suite 8100  
Salt Lake City, UT 84138

**Subject:** Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead

Dear Ms. Bainson:

The Environmental Protection Agency has reviewed the November 17, 2022 Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to EPA. It requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The Notice of Intent states that given the historic drought and low runoff conditions in the Colorado River Basin, Reclamation needs to modify operating guidelines for the operation of Glen Canyon Dam and Hoover Dam to address water delivery and hydropower objectives. Reclamation is currently operating under the December 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, expiring in 2026, but these existing operating guidelines are insufficient given current hydrology and reservoir conditions and considering plausible low runoff conditions in the Colorado River Basin over the next four years. As part of this process, Reclamation intends to initiate a Supplemental EIS to analyze proposed operational changes in order to better protect dam operations, system integrity, and public health and safety.


Concurrently, Reclamation has begun to initiate a NEPA process for the Long-term Operations. EPA submitted comments on this Notice of Request for Input on September 1, 2022, and have included those as an attachment here. We understand that Reclamation is preparing separate documents and that the emergency operational scenarios detailed in the NOI are not intended to include long term climate change modeling and will respond to immediate conditions, however, we think that many of our NEPA recommendations are appropriate and relevant. Protecting public health and the environment is an important consideration when developing emergency drought procedures. In addition, we stress the importance of meaningful engagement with communities and tribes. Water shortages affect all communities and can be particularly challenging for already burdened communities. Please include a discussion of community and tribal coordination in the Supplemental EIS.

We appreciate the opportunity to review this Notice of Intent and are available to discuss our comments. Please

add us to the distribution list for the Supplemental Draft EIS. If you have any questions, please contact me at (415) 972-3098 or [gordon.stephanies@epa.gov](mailto:gordon.stephanies@epa.gov).

Sincerely,

STEPHANIE  
GORDON

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Stephanie Gordon  
Environmental Review Branch

Cc via email: Dedina Williams, U.S. Bureau of Reclamation

Enclosures: EPA's September 1, 2022 Comment letter



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION IX  
**75 Hawthorne Street**  
**San Francisco, CA 94105-3901**

September 1, 2022

Carly Jerla  
U.S. Bureau of Reclamation  
CADSWES  
University of Colorado at Boulder  
421 UCB  
Boulder, CO 80309-0421

**Subject: Notice of Request for Input on Development of Post-2026 Colorado River Reservoir Operational Strategies for Lake Powell and Lake Mead Under Historically Low Reservoir Conditions**

Dear Carly Jerla:

The Environmental Protection Agency has reviewed the June 24, 2022 Notice of Request for Input on Development of Post-2026 Colorado River Reservoir Operational Strategies for Lake Powell and Lake Mead Under Historically Low Reservoir Conditions. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to EPA. It requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The Notice of Request for Input states that Reclamation is beginning work to develop operational strategies for the continued operation of Lake Powell and Lake Mead. The December 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead are expiring in 2026. Reclamation intends to initiate the NEPA process through a Notice in Intent to Prepare an EIS in 2023. Reclamation has stated that ongoing parallel processes, such as the Drought Contingency Measures, as well as the updated science and climate change scenarios, are informing the development of the operational strategies for the operating guidelines.

The beneficial uses of the Lower Colorado River are diverse, providing vital environmental, economic, and public health benefits for Arizona, California and Nevada (Lower Basin States). The Draft Environmental Impact Statement would evaluate the direct, indirect, and cumulative impacts of the proposed guidelines taking into account recent hydrologic trends, unprecedented shortage criteria, demand reductions and many other inputs. Special attention should be given to water quality, collaboration and communication with a wide range of stakeholders including Basin Tribes, conservation measures that can be implemented across federal, state and local governments, and a thorough analysis of impacts of those who are most vulnerable to water shortages. Please see our attached detailed comments for additional information regarding these topics.

We appreciate the opportunity to review this request for input prior to the formal Notice of Intent and are available to discuss our comments. If you have any questions, please contact me at (415) 972-3098 or [gordon.stephanies@epa.gov](mailto:gordon.stephanies@epa.gov).

Sincerely,

**STEPHANIE  
GORDON**

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Stephanie Gordon  
Environmental Review Branch

Enclosures: EPA's Detailed Comments

### **Statement of Purpose and Need**

The Draft Environmental Impact Statement prepared for the Colorado River Reservoir Operational Strategies should clearly identify the underlying purpose and need to which Reclamation is responding in proposing the alternatives. The *purpose* of the proposed action is typically the specific objectives of the activity, while the *need* for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity.

The purpose and need should be a clear, objective statement of the rationale for the proposed project, as it provides the framework for identifying project alternatives. The EIS should concisely identify why the project is being proposed, why it is being proposed now, and should focus on the specific desired outcomes of the project (e.g., demand reduction, ecosystem protection, hydropower, water deliveries). The purpose and need should also clearly describe Reclamation's role and federal action in the project and possible future federal actions.

### **Alternatives Analysis**

All reasonable alternatives that fulfill the project's purpose and need should be evaluated in detail. The EIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail. A robust range of alternatives will include options for avoiding significant environmental impacts. The EIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. We encourage Reclamation to explore Alternatives, or elements of Alternatives, beyond the agency's direct control, such as partnerships with states and other entities to increase water recycling and efficient water use.

The No Action Alternative should clearly describe the current regulatory framework including current operational parameters of the reservoirs. It should specify the regulatory vehicles that govern the operational regimes including the Endangered Species Act and international agreements.

The Action Alternatives should include a wide range of Alternatives that describe possible future scenarios for both water supply and demand reduction. To fully inform the public about consequences of continuing the status quo, the document should disclose the real-life environmental impacts of reduced water deliveries for agriculture and municipal and industrial uses, cessation of hydropower caused by dead pool, and other possible scenarios.

The environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14(b)). The potential environmental impacts (including benefits) of each alternative should be quantified to the greatest extent possible (e.g., production of hydropower; change in water quality parameters).

### **Coordination with Tribal Governments**

Reclamation's 2020 "Review of the Colorado River Interim Guidelines"<sup>1</sup> describes that during the initial NEPA process in 2005-2007, Reclamation engaged with 29 federally recognized tribes in the Basin and conducted government-to-government activities with tribal entities who may have been affected or had interests in the proposed federal action. Meaningfully engaging and encouraging the participation of tribes is crucial to the success of any future operational decisions and studies. As stated in the pre-scoping notice, Reclamation is committed to engaging and consulting with Basin Tribes in a meaningful and transparent manner and to fully consider tribal input and viewpoints and to conduct government-to-government consultations as appropriate.

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<sup>1</sup> [https://www.usbr.gov/ColoradoRiverBasin/documents/7.D.Review\\_FinalReport\\_12-18-2020.pdf](https://www.usbr.gov/ColoradoRiverBasin/documents/7.D.Review_FinalReport_12-18-2020.pdf)

Executive Order 13175 *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000) was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes.

The Draft EIS should thoroughly describe the process and outcome of government-to-government consultation between Reclamation and tribes, including issues that were raised and how those issues were addressed in the development and selection of the proposed alternative and proposed mitigation.

The EPA notes that the Advisory Council on Historic Preservation (ACHP) considers that “[c]onsultation is more than simply notifying an Indian tribe about a planned undertaking.” While consultation should begin with a formal letter, the ACHP advises that “[f]ace-to-face meetings or on-site visits may be the most practical way to conduct consultation.”<sup>2</sup>

In the Long Term Experimental and Management Plan<sup>3</sup>, Reclamation and the National Park Service incorporated tribal information, perspectives and analyses into multiple resource chapters. This was a unique and special opportunity to discuss tribal perspectives in a holistic and informative way and we encourage Reclamation to explore a similar approach, as appropriate, in this Draft EIS.

#### *National Historic Preservation Act and Executive Order 13007*

Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act. Historic properties under the NHPA are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer. Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources (36 CFR 800).

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site.

The Draft EIS should address the existence of Indian sacred sites in the project areas. It should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how Reclamation will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist. The Draft EIS should provide a summary of all coordination with Tribes and with the SHPO/THPO, including identification of NRMP eligible sites, and development of a Cultural Resource Management Plan.

### **Water Quality**

Should the project modify flow through operational changes, increased diversion of water, or introduction of new water sources, we recommend the Draft EIS include an analysis of water quality that evaluates the areas below.

- Compare current water quality, post-project water quality, and the applicable NPDES or state water quality standards.
- If the EIS identifies the potential for the project to cause or contribute to violations of water quality standards, identify alternatives, mitigation or operational controls to avoid such impacts. If it proves

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<sup>2</sup> Advisory Council on Historic Preservation. June 2021. Consultation with Indian Tribes in the Section 106 Review Process: The Handbook. Available at <https://www.achp.gov/sites/default/files/2021-06/ConsultationwithIndianTribesHandbook6-11-21Final.pdf>.

<sup>3</sup> <https://www.usbr.gov/uc/progact/amp/ltemp.html#LTEMP>

difficult to determine the project's potential for impacts to water quality standards, we recommend implementing a water quality monitoring program. In such cases, monitoring should be done before, during and after project implementation.

- Account for changes in background water quality for water quality modeling and when making determinations of assimilative capacity.
- Identify reaches with existing water quality impairments per State Clean Water Act Section 303(d) lists, draft or established total maximum daily loads (TMDLs), and potentially affected dischargers and ensure the project will avoid contributing to existing impairments.
- Identify Source Water Protection areas and explain how the project would be consistent with Source Water Protection planning measures.
- Identify potentially affected drinking water treatment providers with intakes on reaches with predicted water quality changes and describe the potential need to change treatment processes.
- Identify waste water treatment plants discharging to reaches with predicted water quality changes. Evaluate current and post-project water quality at a critical flow conditions and expected changes to assimilative capacity or permit limits for any NPDES or state discharge permits.
- Discuss the impacts that proposed operational strategies, such as fluctuating reservoir levels, could contribute to sediment resuspension and transport.
- Evaluate whether agricultural irrigation in the project area would increase or decrease as a result of this project, and consider whether there would be water quality effects related to return flows in receiving waters, and any associated impacts to water treatment facilities and discharge permittees.

### *Groundwater*

EPA anticipates this project has the potential to both positively and negatively impact groundwater resources. In assessing the potential impacts of each alternative on groundwater systems in the project area, we recommend that the Draft EIS examine the potential for changes in the volume, storage, flow and quality of groundwater using available characterization of groundwater resources and groundwater use. If the EIS identifies any adverse impacts to groundwater resources, we recommend considering alternatives, mitigation measures or operational controls that would avoid, reduce or minimize impacts on groundwater.

### **Biological Resources**

The Draft EIS should identify all proposed/candidate and listed threatened and endangered species and critical habitat (final or proposed) that might occur within the project area. The document should identify and quantify which species or critical habitat might be directly, indirectly, or cumulatively affected by each alternative and mitigate impacts to these species; emphasis should be placed on the protection and recovery of species due to their status or potential status under the federal or state Endangered Species Act.

### **Cumulative and Indirect Impacts**

The cumulative impacts analysis should identify how resources, ecosystems, and communities in the project have already been, or would be, affected by past, present, or future activities in the project area. These resources should be characterized in terms of their response to change and capacity to withstand stresses. Trends data should be used to establish a baseline for the affected resources, to evaluate the significance of historical degradation, and to predict the environmental effects of the project components.

For the cumulative impacts assessment, we recommend focusing on resources of concern or resources that are "at risk" and/or are significantly impacted by the proposed project, before mitigation. For this project, Reclamation should conduct a thorough assessment of the cumulative impacts to aquatic, biological, and tribal resources.

The EPA recommends that the DEIS identify which resources are analyzed, which ones are not, and why. For each resource analyzed, the DEIS should do the following.

- Identify the current condition of the resource as a measure of past impacts.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis.
- Identify all on-going, planned, and reasonably foreseeable projects in the study areas, which may contribute to cumulative impacts.
- Identify the future condition of the resource based on an analysis of impacts from reasonably foreseeable projects or actions added to existing conditions and current trends.
- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource and provide a specific measure for the projected impact from the proposed alternatives.
- When cumulative impacts are identified for a resource, mitigation should be proposed.
- Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts.
- Identify opportunities to avoid and minimize impacts through changes to project elements or mitigation, including working with other entities that may have authority or responsibility for these measures.

The Draft EIS should consider the cumulative impacts associated with other development projects proposed in the area and the potential impacts on various resources including water quality and quantity, endangered species, and habitat.

The Draft EIS should quantify cumulative impacts across resources areas, as well as describe and evaluate feasible mitigation measures to avoid and minimize the identified adverse cumulative impacts. Although these mitigation measures may be outside the jurisdiction of Reclamation, describing them in the EIS would serve to alert other agencies or officials who can implement these extra measures (CEQ 40 Questions No. 19(b)).

### **Climate Change**

As stated in the pre-scoping notice, since 2007, unprecedented drought has changed our understanding of basin hydrology; climate science tells us that the future temperatures in the Colorado River Basin will continue to warm and that we can expect an increased likelihood of experiencing deep, prolonged droughts. Reclamation believes that future policies must be tested across a wide range of potential future conditions, including drought sequences that are longer and more severe than those that have been observed. Absent such an approach, policies are likely to be insufficiently robust, adaptable, and successful. We support Reclamation in this endeavor to develop operational guidelines that respond to drought and shortages in a meaningful way, as well as addressing more extremes in climate variability such as the flooding and more intense storms.

### **Environmental Justice**

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (February 16, 1994), directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations. It further directs agencies to develop a strategy for implementing environmental justice and providing minority and low-income communities access to public information and public participation. As such, we recommend that Reclamation address adverse environmental effects of the proposed project on these communities and outline measures to mitigate for impacts.

A minority population does not need to meet a 50 percent standard if “the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.”<sup>4</sup> To best illustrate the presence of a minority population, we recommend that Reclamation analyze block groups, the smallest geographical unit that the U.S. Census Bureau publishes data for. We caution using larger tracts in the analysis, such as counties or cities, as these may dilute

<sup>4</sup> Council on Environmental Quality. Environmental Justice: Guidance Under the National Environmental Policy Act. December 1997. Available at [https://www.epa.gov/sites/production/files/2015-02/documents/ej\\_guidance\\_nepa\\_ceq1297.pdf](https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf).



the presence of minority populations.

The NEPA Committee of the Federal Interagency Working Group on Environmental Justice has noted that, in some cases, it may be appropriate to use a threshold for identifying low-income populations that exceeds the poverty level.<sup>5</sup>

After Reclamation has determined if minority and low-income populations exist in the project area, we recommend that the Draft EIS discuss whether these communities would be potentially affected by individual or cumulative actions of the proposed action. We also recommend addressing whether any of the alternatives would cause any disproportionate adverse impacts, such as higher exposure to toxins; changes in existing ecological, cultural, economic, or social resources or access; cumulative or multiple adverse exposures from environmental hazards; or community disruption.

If it is determined that minority and low-income populations may be disproportionately impacted, describe in the Draft EIS the measures taken by Reclamation to fully analyze the environmental effects of the action on minority communities and low-income populations and identify potential mitigation measures. Clearly identify a monitoring and adaptive management plan to ensure that mitigation is effective and successful.

Present opportunities for affected communities to provide input into the NEPA process. In the DEIS, include information describing what was done to inform these communities about the project and the potential impacts it will have on their communities (notices, mailings, fact sheets, briefings, presentations, translations, newsletters, reports, community interviews, surveys, canvassing, telephone hotlines, question and answer sessions, stakeholder meetings, and on-scene information), what input was received from the communities, and how that input was utilized in the decisions that were made regarding the project. The "Environmental Justice (EJ) Interagency Working Group (IWG) Promising Practices for EJ Methodologies in NEPA Reviews"<sup>4</sup> report, or the Promising Practices Report, provides ways to both consider environmental justice concerns during environmental analyses and encourage effective participation by communities with environmental justice concerns. The Promising Practices Report is a compilation of methodologies gleaned from current agency practices concerning the interface of environmental justice considerations through NEPA processes. For example, the Promising Practices Report suggests initiating meaningful engagement with communities early and often; providing potentially affected communities with an agency-designated point of contact; and convening project-specific community advisory committees, as appropriate.

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<sup>5</sup> Federal Interagency Working Group on Environmental Justice & NEPA Committee. Promising Practices for EJ Methodologies in NEPA Reviews. March 2016. Available at: [https://www.epa.gov/sites/production/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf).