
Glen Canyon Dam Long-Term Experimental and Management Plan EIS

<http://ltempeis.anl.gov/faq/index.cfm>

[Home](#) » [FAQs](#)

Frequently Asked Questions (FAQs)

A list of frequently asked questions about the LTEMP EIS.

Below is a list of frequently asked questions about the LTEMP EIS. Click a question to see the answer.

Process-oriented FAQs

- [What is an Environmental Impact Statement \(EIS\)?](#)
- [Why is the Long-Term Experimental and Management Plan \(LTEMP\) EIS needed?](#)
- [What is the purpose of the LTEMP EIS?](#)
- [Why are the Bureau of Reclamation and the National Park Service co-leads on the LTEMP EIS?](#)
- [What is the scoping process?](#)
- [How can I participate in the LTEMP EIS process and what are the deadlines for commenting?](#)
- [When will the Draft EIS be published?](#)
- [How can I get a copy of the Draft EIS when available?](#)
- [When will the Final EIS be published?](#)
- [Will there be any cooperating agencies involved with the LTEMP EIS?](#)
- [How will tribes be involved in the LTEMP process?](#)
- [What is the Glen Canyon Dam Adaptive Management Program?](#)
- [What is the relationship between the LTEMP and the existing Glen Canyon Dam Adaptive Management Program?](#)
- [What is Adaptive Management?](#)
- [What is the relationship between the LTEMP and the Long Term Experimental Plan \(LTEMP\) processes?](#)
- [What is the relationship of the LTEMP EIS to the two EAs on non-native fish control and high-flow experiments?](#)

Resource and Scope-oriented FAQs

- [What is the scope of the analysis for the LTEMP EIS, and what resources, impacts, and issues will it address?](#)
- [Will the LTEMP EIS consider effects on the various natural, cultural, and recreational resources downstream of Glen Canyon Dam?](#)
- [Will the LTEMP EIS consider effects on recreational users and the recreation industry downstream of Glen Canyon Dam, or on visitor experience?](#)
- [Will the LTEMP EIS consider effects on water availability for communities or agriculture or on water levels in Lake Powell or Lake Mead?](#)

- [What are the current dam release patterns?](#)
 - [Will the LTEMP affect dam release patterns?](#)
 - [Will the LTEMP affect hydroelectric power production?](#)
 - [What have been the effects of previous high-flow experiments on beaches and other resources?](#)
 - [What have previous experiments told us about the humpback chub?](#)
 - [Why are additional experiments needed?](#)
 - [How will the need for specific experiments be determined?](#)
 - [What alternatives will be evaluated in the LTEMP EIS?](#)
 - [Will the removal of Glen Canyon Dam be considered as an LTEMP alternative?](#)
 - [What is a Recovery Implementation Program \(RIP\) and how would that affect dam operations?](#)
-

Process-oriented FAQs

What is an Environmental Impact Statement (EIS)?

An EIS is a tool for making decisions. It describes the beneficial and adverse environmental effects of potential management actions. An EIS is required whenever a federal agency proposes to take an action that could have significant impacts on the environment.

Purpose of an EIS

An EIS is a document that describes the effects of proposed actions on the environment. "Environment," in this case, is defined as the natural and physical environment and the relationship of people with that environment. This means that the "environment" considered in an EIS includes land, water, air, structures, living organisms, environmental values at the site, and social, cultural, and economic factors. An "impact" is a change or consequence that results from an activity. Impacts can be beneficial, adverse, or both. An EIS describes impacts, as well as ways to "mitigate" impacts. To "mitigate" means to lessen or remove negative impacts.

EIS Requirements

Federal laws and regulations require the federal government to evaluate the effects of its actions on the environment and to consider alternative courses of action. National Environmental Policy Act (NEPA) regulations require, among other things, federal agencies to include discussion of proposed actions and a range of reasonable alternatives in an EIS. The EIS must include sufficient information for reviewers to evaluate the relative merits of each alternative. The Council on Environmental Quality (CEQ) regulations provide the recommended format and content of EISs.

[Back to Top](#)

Why is the Long-Term Experimental and Management Plan (LTEMP) EIS needed?

The need for the proposed action stems from the need to utilize scientific information developed over the past 15 years to better inform Departmental decisions on dam operations and other management and experimental actions so that the Secretary may continue to meet statutory responsibilities for protecting downstream resources for future generations, conserving Endangered Species Act-listed species, and protecting Native American interests, while meeting water delivery obligations and for the generation of hydroelectric power.

[Back to Top](#)

What is the purpose of the LTEMP EIS?

To fully evaluate dam operations and identify management actions and experimental options that will provide a framework for adaptively managing [Glen Canyon Dam](#) over the next 15 to 20 years consistent with the [Grand Canyon Protection Act \(GCPA\)](#) and other provisions of applicable Federal law. The proposed action will help determine specific alternatives that could be implemented to meet the GCPA's requirements and to minimize, consistent with law, adverse impacts on the downstream natural, recreational, and cultural resources in the park units, including resources of importance to American Indian Tribes.

[Back to Top](#)

Why are the Bureau of Reclamation and the National Park Service co-leads on the LTEMP EIS?

The Bureau of Reclamation has the primary responsibility for operating [Glen Canyon Dam](#), and the National Park Service has the primary responsibility for visitors and resources in the [Grand Canyon National Park](#) and [Glen Canyon](#) and [Lake Mead](#) National Recreation Areas. Both agencies are part of the U.S. Department of the Interior.

[Back to Top](#)

What is the scoping process?

Public scoping is a phase of the National Environmental Policy Act analysis process, and is intended to give the public the chance to comment on the LTEMP, recommend alternatives, and identify and prioritize the resources and issues to be considered in the EIS analysis. The public scoping phase of the EIS process gives interested parties the opportunity to comment and provide early ideas about:

- The resources or issues to be evaluated in the LTEMP EIS,
- The alternatives to be included in the LTEMP EIS, and
- Concerns or observations regarding [Glen Canyon Dam](#) operations and downstream resources.

Public scoping for the LTEMP EIS began July 6, 2011, and ran through January 31, 2012. Scoping is the earliest (but not the last) opportunity for people to provide input on the Glen Canyon Dam LTEMP EIS. Also note that while public comments are not votes, public input is considered in the evaluation process.

[Back to Top](#)

How can I participate in the LTEMP EIS process and what are the deadlines for commenting?

The public was provided the opportunity to submit written comments electronically through a public comment form and via regular mail as part of scoping, through January 31, 2012. The Draft EIS is scheduled for release in December of 2012. Updates will be available on this website (<http://ltempeis.anl.gov>).

[Back to Top](#)

When will the Draft EIS be published?

The proposed schedule currently calls for release of a Draft EIS in December 2012.

[Back to Top](#)

How can I get a copy of the Draft EIS when available?

A Notice of Availability will be published in the Federal Register when the Draft EIS is released. The Notice of Availability will provide instructions for obtaining copies of the draft. This website, <http://ltempeis.anl.gov>, will also have specific instructions for downloading or otherwise obtaining copies.

[Back to Top](#)

When will the Final EIS be published?

The proposed schedule currently calls for release of the Final EIS in the fall of 2013.

[Back to Top](#)

Will there be any cooperating agencies involved with the LTEMP EIS?

Yes, the following agencies will participate in the LTEMP EIS as cooperating agencies: Arizona Game and Fish Department, Bureau of Indian Affairs, Colorado River Commission of Nevada, The Havasupai Tribe, The Hopi Tribe, The Hualapai Tribe, Kaibab Band of Paiute Indians, The Navajo Nation, The Pueblo of Zuni, Salt River Project, U.S. Fish and Wildlife Service, Upper Colorado River Commission, Utah Associated Municipal Power Systems, Western Area Power Administration, and Yavapai-Apache Nation.

[Back to Top](#)

How will tribes be involved in the LTEMP process?

Tribes are being formally invited to participate and will be involved as sovereign nations collaborating directly with the

Department of Interior, Reclamation, and the National Park Service to determine their desired nature and level of involvement. Several American Indian tribes have indicated their interest in being cooperators in this NEPA process.

[Back to Top](#)

What is the Glen Canyon Dam Adaptive Management Program?

As stated in the July 6, 2011, *Notice of Intent*, "The [Glen Canyon Dam Adaptive Management Program](#) (GCDAMP) was established by, and has been implemented pursuant to the Secretary's 1996 Record of Decision on the Operation of Glen Canyon Dam (ROD), in order to comply with monitoring and consultation requirements of the Grand Canyon Protection Act (GCPA). The GCDAMP includes a federal advisory committee known as the Glen Canyon Dam Adaptive Management Work Group (AMWG), a technical work group, a scientific monitoring and research center administered by the U.S. Geological Survey (USGS), and independent scientific review panels. The AMWG makes recommendations to the Secretary concerning Glen Canyon Dam operations and other management actions to protect resources downstream of Glen Canyon Dam consistent with the GCPA and other applicable provisions of federal law."

[Back to Top](#)

What is the relationship between the LTEMP and the existing Glen Canyon Dam Adaptive Management Program?

As stated in the July 6, 2011, *Notice of Intent*, "The LTEMP process will build upon the input and recommendations from the Adaptive Management Working group (AMWG), which is a subcomponent of the [Glen Canyon Dam Adaptive Management Program](#) (GCDAMP), as well as on input received from public scoping, internal scoping, and analysis of more than 15 years of scientific information." The LTEMP will be coordinated with the existing GCDAMP.

[Back to Top](#)

What is Adaptive Management?

Adaptive management is a decision process that promotes flexible decision making. Under Adaptive management, decisions can be adjusted in the face of uncertainties, as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes advances scientific understanding and contributes to adjusting policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in ecological resilience and productivity. It is not a "trial and error" process, but rather, emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather, a means to more effective decisions and enhanced benefits. Its true measure is in how well it (a) helps meet environmental, social, and economic goals; (b) increases scientific knowledge; and (c) reduces conflicts between stakeholders.

[Back to Top](#)

What is the relationship between the LTEMP and the Long Term Experimental Plan (LTEP) processes?

A previous planning process called the Long Term Experimental Plan (LTEP) for the operation of [Glen Canyon Dam](#) started in late 2006. Multiple factors, including extraordinarily large sediment inputs from tributaries, new information on the endangered humpback chub population, and litigation led to a temporary suspension of work on the LTEP EIS in 2008. During this time, the DOI completed the 2008 High Flow Environmental Assessment (EA), which included five years' data for fall steady research flows, and then moved into the [High Flow Experimental Protocol EA](#) and the [Non-native Fish Control EA](#), both of which are still underway. As stated in the July *Notice of Intent*, this LTEP EIS will supersede the LTEP EIS, though the LTEP EIS will draw on the environmental documentation and updated information developed for the LTEP EIS.

[Back to Top](#)

What is the relationship of the LTEP EIS to the two EAs on non-native fish control and high-flow experiments?

The LTEP EIS is a separate process, but it will incorporate the information from the 2011 EAs for [non-native fish control](#) and [high-flow experiments](#).

[Back to Top](#)

Resource and Scope-oriented FAQs

What is the scope of the analysis for the LTEP EIS, and what resources, impacts, and issues will it address?

Public scoping is the time to obtain input on the scope of the EIS, so public feedback via written comments is encouraged.

As currently planned, the geographic scope of this analysis will include the resources that could be affected by operations of [Glen Canyon Dam](#) along the Colorado River in [Glen Canyon National Recreation Area](#), [Grand Canyon National Park](#), and, potentially, [Lake Mead National Recreation Area](#).

The preliminary list of considerations (resources, impacts, or issues) includes:

- Recreation (fishing, rafting, camping, etc.)
- Hydropower production
- Hydrology and water delivery
- Sediment (deposition and erosion)
- Historic properties
- Tribal perspectives
- Wilderness
- Riparian and terrestrial ecology, including native, non-native, and endangered species
- Aquatic ecology, including native, non-native, and endangered species
- Air quality

- Climate change

[Back to Top](#)

Will the LTEMP EIS consider effects on the various natural, cultural, and recreational resources downstream of Glen Canyon Dam?

The effects on all resources that may be affected will be evaluated as part of the EIS process. Scientific information will form the basis for all analyses. Topics for consideration include recreational fishing, aquatic food base, vegetation along the river banks, cultural resources (archaeological sites, historic sites, traditional cultural properties), invasive species (tamarisk, New Zealand mud snails, quagga mussels), tribally identified resources, water temperature, sediment (quantities, qualities, retention and distribution), native and non-native species (water and land-based), and extirpated species.

[Back to Top](#)

Will the LTEMP EIS consider effects on recreational users and the recreation industry downstream of Glen Canyon Dam, or on visitor experience?

The LTEMP EIS will consider effects on recreation. The EIS will analyze scientific information and consider public input. Recreational considerations will focus on fishing, rafting, and camping/beach use along the Colorado River; hiking and wilderness experience; and both use and non-use recreation values. The EIS may also consider other recreation such as boating use on Lake Powell and Lake Mead, if it evaluates any alternatives that may have potential impacts.

[Back to Top](#)

Will the LTEMP EIS consider effects on water availability for communities or agriculture or on water levels in Lake Powell or Lake Mead?

The LTEMP will not affect the annual amount of water that moves between Lake Powell and Lake Mead, as that is determined by the "Law of the River" and the 2007 "[Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead](#)." The same amount of water will still be available annually for communities and agriculture. However, potential changes to the timing of the water flow between Lake Powell and Lake Mead may be considered. Nothing in this process will affect water allocation among the basin states or the Secretary of Interior's responsibility for water deliveries.

[Back to Top](#)

What are the current dam release patterns?

Dam releases currently follow the Modified Low Fluctuating Flow (MLFF) regime established in the 1996 *Record of Decision* for operation of [Glen Canyon Dam](#). The table below presents the established release constraints for flow

parameters under MLFF.

| Glen Canyon Dam Release Constraints Under the Modified Low Fluctuating Flow (MLFF) | | |
|---|---|------------------------|
| Parameter | Release Volume (cubic feet per second) | Conditions |
| Maximum Flow ¹ | 25,000 | |
| Minimum Flow | 5,000 | Nighttime |
| | 8,000 | 7:00 a.m. to 7:00 p.m. |
| | | |
| Ramp Rates | | |
| Ascending | 4,000 | Per hour |
| Descending | 1,500 | Per hour |
| Daily Fluctuations ² | 5,000 to 8,000 | |

¹ May be exceeded for emergencies and during extreme hydrological conditions.

² Daily fluctuation limit is 5,000 cfs for months with release volumes less than 0.6 million acre-feet (maf); 6,000 cfs for monthly release volumes of 0.6 maf to 0.8 maf; and 8,000 cfs for monthly volumes over 0.8 maf.

[Back to Top](#)

Will the LTEMP affect dam release patterns?

The LTEMP may affect dam release patterns, but will not affect the annual amount of water that moves between Lake Powell and Lake Mead, as that is determined by the "Law of the River" and the 2007 "[Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead](#)." The same amount of water will still be available annually for agriculture and communities. Currently, [Glen Canyon Dam](#) releases follow the preferred alternative from the 1996 *Record of Decision* for operation of Glen Canyon Dam. This preferred alternative, referred to as "Modified Low Fluctuating Flows" will be the starting point for evaluation in this new EIS process.

[Back to Top](#)

Will the LTEMP affect hydroelectric power production?

Effects on hydroelectric power production will be considered as part of the LTEMP EIS. Scientific information will be analyzed and public input will be considered. There are a number of factors that could affect hydropower production at [Glen Canyon Dam](#) unconnected to the LTEMP process including maintenance schedules, lake level elevations, and demand.

[Back to Top](#)

What have been the effects of previous high-flow experiments on beaches and other resources?

Since 1982, scientists have been conducting and evaluating experiments related to determining the effects of dam operations on a variety of resources, including beaches and other sediment-related resources in Grand Canyon. These results have identified several potential strategies for conserving sand using high flow and other dam release patterns. One of the objectives of the LTEMP EIS process is evaluating the scientific results of past experiments and applying these results to formulate a long-term experimental plan that addresses uncertainties and identifies operations that would protect downstream resources such as native fish and archeological sites that are dependent on fine sediments.

[Back to Top](#)

What have previous experiments told us about the humpback chub?

Since 1982, scientists have been conducting and evaluating experiments related to determining the effects of dam operations on a variety of resources, including humpback chub and other water-based species. These results have identified several potential flow and non-flow strategies for protecting and enhancing populations of humpback chub. One of the objectives of the LTEMP EIS process is evaluating the scientific results of past experiments and applying these results to formulating a long-term experimental plan that addresses scientific uncertainties and identifies operations that would protect humpback chub populations.

[Back to Top](#)

Why are additional experiments needed?

Previous experiments have helped us better understand the effects of dam operations. The knowledge we have gained will allow us to make management decisions, but there is more to learn. We have learned from past experiments about beneficial and adverse effects on visitors and resources from different operations. These lessons learned can be applied to experiments in the future that would allow us to better protect resources, continue meeting water requirements for communities and agriculture, and adjust operations in an adaptive management framework.

[Back to Top](#)

How will the need for specific experiments be determined?

At the completion of the public scoping period, Reclamation and the National Park Service, along with cooperators, will review the information derived from scoping and develop alternatives for evaluation in the EIS under NEPA. Past, ongoing, and future scientific studies and experimentation will be considered in the development of the EIS. The EIS will be grounded in the scientific analysis of past experiments and the goals for resource protection. We anticipate that this EIS would allow for certain types of experiments to occur over time, rather than approving specific individual experiments.

[Back to Top](#)

What alternatives will be evaluated in the LTEMP EIS?

Specific alternatives to be analyzed in the LTEMP EIS have not yet been developed. We anticipate evaluating a full range of alternatives that include both flow and non-flow actions. Possible components of alternatives could include fluctuating and steady-flow scenarios, varying ramping rates, increasing sediment into the Colorado River below [Glen Canyon Dam](#), and/or temperature-control devices or methods. After scoping is complete and comments have been analyzed, the team will evaluate a range of reasonable alternatives that meet the purpose, need, and objectives of the LTEMP.

[Back to Top](#)

Will the removal of Glen Canyon Dam be considered as an LTEMP alternative?

No, dam removal will not be considered because it does not fit the purpose and need of the LTEMP and would be beyond the scope of the EIS.

[Back to Top](#)

What is a Recovery Implementation Program (RIP) and how would that affect dam operations?

A Recovery Implementation Program (RIP) is a unique partnership of local, state, and federal agencies; water and power interests; and environmental groups working to recover endangered species, while development proceeds in accordance with federal and state laws and interstate compacts. The goal of recovery is to achieve natural, self-sustaining populations of endangered species so they no longer require protection under the federal Endangered Species Act. Recovery Implementation Programs have been developed for several river systems, including the Upper Colorado River Basin, Platte River, and San Juan River.

Through an RIP, partners consider scientific studies to address uncertainties and changes in dam operations and non-flow actions. These changes are usually the result of deliberations between agencies and stakeholders, who are participating members of the program.

[Back to Top](#)

Didn't see your question here?

You may contact us at ltempeiswebmaster@anl.gov. We'll do our best to answer your question.
