

WELCOME

FOLSOM DAM SAFETY AND FLOOD DAMAGE REDUCTION ACTION

Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR)

Folsom Dam and Reservoir are one of the largest facilities of its type upstream of a major U.S. metropolitan area. In addition to providing water supply, power, and recreational opportunities, the Folsom Facility is also operated to provide flood protection benefits to Sacramento. To ensure that the Facility is capable of meeting its multiple purposes well into the future, improvements to its structures and operational flexibility are necessary.



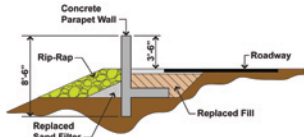
**US Army Corps
of Engineers** ®
Sacramento District

PURPOSE

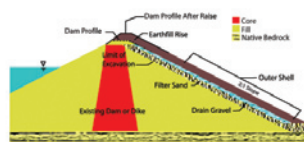
Folsom Dam Safety and Flood Damage Reduction Action Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR)

The proposed improvements address five areas including Hydrologic, Seismic, Static, Dam Security, and Flood Damage Reduction considerations. The Folsom Dam Safety/Flood Damage Reduction (DS/FDR) EIS/EIR provides assessments of alternatives that would address these issues. The Draft EIS/EIR has evaluated five alternatives, identifying potential impacts and mitigations for each.

3.5 foot Raised Flood Wall
Flood Damage Reduction



Typical Dike Raise



DAM SAFETY & FLOOD DAMAGE REDUCTION

HYDROLOGIC

The hydrologic issues are both dam safety and flood damage reduction concerns. Overall, the hydrologic aspects of the alternatives address the ability of the Folsom Facilities to safely manage large flood events without overtopping or failure of any of the dam facilities, and within the design capabilities of the levees along the lower American River when water is released from the facilities during a large storm event. The Draft EIS/EIR addresses several hydrologic control options, including:

- Construction of the Joint Federal Project (JFP) Gated Auxiliary Spillway along the left abutment of the Main Dam that would allow for earlier releases. The JFP Gated Auxiliary Spillway would meet Reclamation's Dam Safety objectives and the Corps' Flood Damage Reduction objectives. The proposed JFP Auxiliary Spillway at Folsom Dam and Reservoir would consist of a control structure with six 23-ft by 33-ft submerged tainter gates and have a total channel length of approximately 3,200 feet.
- Dam Raise that would raise all retention facilities including earthen and concrete structures to a height necessary to increase flood storage capacity.
- Improvements to facility structures (dikes and dams) to strengthen the structures and protect crests from wave wash

STATIC

The static concern relates to seepage of water through earthen dikes and dams. The primary option under consideration involves improvements to the filters and drains that would receive and control any seepage water.

SEISMIC

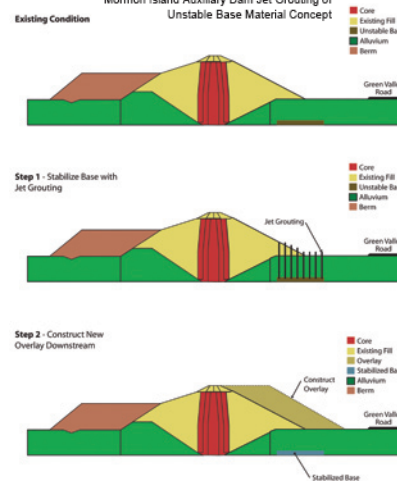
There are concerns related to how the Folsom Facilities would perform during a large earthquake. Of greatest concern is movement of the main concrete dam and failure of the Mormon Island Auxiliary Dam (MIAD). The Draft EIS/EIR assesses the following options:

- Reinforcement of the main dam to increase stability, including reinforcement of pier and gate structures, increasing shear resistance of foundation and concrete blocks, and foundation strengthening improvements.
- Stabilization of MIAD, which is founded upon potentially liquefiable materials. Alternatives to reinforce MIAD include excavation and replacement of the foundation materials, and stabilization of the structure through jet grouting.

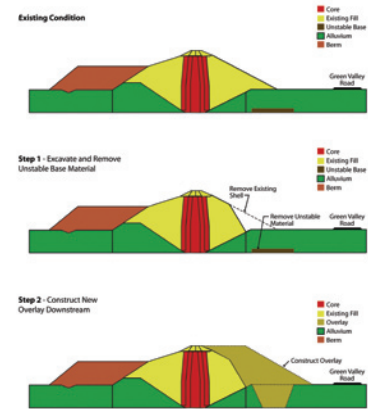
SECURITY

Folsom Dam has been designated as a National Critical Infrastructure Facility. Any compromise of the facility could result in grave property damage and loss of life. The objective of the Security Project is to upgrade the existing level of security by upgrading key security features.

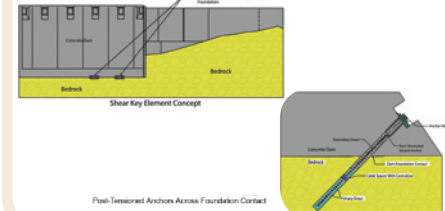
Mormon Island Auxiliary Dam Jet Grouting of
Unstable Base Material Concept



Mormon Island Auxiliary Dam Excavate and Replace Concept



Seismic Reinforcement of Concrete Dam



IMPACTS AND MITIGATION

Folsom Dam Safety and Flood Damage Reduction Action

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The Draft EIS/EIR analyzes local, downstream, and cumulative impacts of the alternatives. The features associated with the action alternatives in the Draft EIS/EIR involve activities with the potential for impacts both at the reservoir, and within the communities around the reservoir. Most of the impacts from construction are considered short-term (beginning and ending with construction) and can be mitigated to “less than significant.” Detailed descriptions of the impacts and mitigation for each action alternative are described in the Draft EIS/EIR, but are summarized here.

POTENTIAL IMPACTS AND MITIGATION

BIOLOGICAL RESOURCES:

IMPACT:

- Loss of Oak and Other Habitat Types
- Loss of Valley Elderberry Longhorn Beetle Habitat

MITIGATION: Adherence with USFWS Biological Opinion requirements and the development of a Mitigation, Monitoring, and Reporting Plan

AIR QUALITY

IMPACT:

- Fugitive dust emissions
- Diesel vehicle emissions

MITIGATION: Application of Best Available Control Technologies as outlined in an Air Quality Management Plan (AQMP)

WATER QUALITY

IMPACT:

- Construction within and adjacent to reservoir

MITIGATION: Adherence to Stormwater Pollution Control Plan, Water Quality Sampling Plan requirements

TRANSPORTATION

IMPACT:

- Construction worker traffic
- Materials transport traffic

MITIGATION: Transportation Management Plan (TMP) to identify truck routes and worker shift times that avoid congestion and rush hour traffic

RECREATION

IMPACT:

- Temporary loss of Folsom Point Recreation Area
- Temporary closure of walking and bike paths near construction zones

MITIGATION: Timing of closure due to construction work to occur during non-peak recreation season, when feasible

VISUAL AESTHETICS

IMPACT:

- Landscape form and color changes due to excavation and storage of earthen materials
- A potential concrete parapet wall changing appearance of top of dams and dikes

MITIGATION: Revegetation of disturbed areas to minimize aesthetic impact

CONSTRUCTION NOISE

IMPACT:

- Increase in ambient noise levels
- Heavy equipment operations
- Rock excavation blasting

MITIGATION: Noise production adheres to county and local ordinances; blasting to occur only during daylight hours, noise barriers installed where practical



PROPOSED ALTERNATIVES

Folsom Dam Safety and Flood Damage Reduction Action

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The Folsom DS/FDR Draft EIS/EIR evaluates the no action and five action alternatives. The action alternatives selected for evaluation best address the screening criteria relative to each Folsom Facility structure. Each action alternative meets the purpose and need/project objectives and considers technical, institutional, and economic criteria.

PROPOSED ALTERNATIVES

No Action/No Project Alternative: The No Action/No Project Alternative is essentially the existing conditions for the Folsom Facilities. No action would be taken to upgrade the structural integrity, improve hydrologic control, or provide additional flood damage reduction benefits to the Sacramento area. The risk of dam failure and downstream flooding would remain the same.

Alternative 1: Fuseplug Auxiliary Spillway, No Concrete Dam Raise/Embankment and Crest Protection.

- Fuseplug auxiliary spillway
- No raise
- Jet grouting at MIAD
- Toe drains and full-height filters at MIAD and Dikes 4,5 and 6

Alternative 2: Fuseplug Auxiliary Spillway with Tunnel, 4-ft Dam/Embankment Raise

- Fuseplug auxiliary spillway
- Potential 4 ft. raise
- Excavate and replace foundation at MIAD
- Improved drains and filters at MIAD, Dikes 4, 5 and 6 and Left and Right Wing dams

Alternative 3: Joint Federal Project (JFP) Gated Auxiliary Spillway with Potential 3.5-ft Parapet Wall Raise

- Gated auxiliary spillway
- Potential 3.5 ft. concrete parapet wall
- Jet grouting at MIAD
- Toe drains and full-height filters at MIAD, Dikes 4, 5 and 6 and Left and Right Wing dams

Alternative 4: JFP Gated Auxiliary Spillway with 7-ft Dam/Embankment Raise

- Gated auxiliary spillway
- Potential 7 ft. earthen raise
- Jet grouting at MIAD
- Toe drains and full-height filters on all embankments

Alternative 5: No Auxiliary Spillway, 17 ft Dam/Embankment Raise

- No auxiliary spillway
- 17 ft. earthen raise
- Excavate and replace MIAD
- Toe drains and full-height filters on all embankments

Features Common to All Action Alternatives

All of the action alternatives include features to increase seismic stability and improve facility security; they include:

- Seismic improvements to main concrete dam blocks and foundation
- Improve or replace existing spillway piers and gates
- Security upgrades
- Downstream overlay at MIAD



ROLES & RESPONSIBILITIES

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Although the Bureau of Reclamation (Reclamation) and the U.S. Army Corps of Engineers (Corps) share common interests regarding the structural integrity, security, and operations of Folsom Dam and Reservoir, Congress has assigned the agencies differing roles and responsibilities. Reclamation is the agency assigned with maintaining the facility, and ensuring public safety related to structural integrity of the dams and dikes that comprise the Folsom Facility. The Corps' primary responsibility is the use of the Folsom Facility to reduce the risk of flood damage in the areas that are within the historic floodplain of the American River.

Through a cooperative effort, Reclamation and the Corps have been evaluating the structural integrity and flood damage reduction capabilities of the Folsom Facility. These evaluations have identified seismic, static, hydrologic, and security concerns that need to be addressed to ensure public safety. Congress has authorized Reclamation and the Corps to collaborate in identifying common solutions to the issues identified for Folsom Dam.

IMPROVING THE STRUCTURAL INTEGRITY OF FOLSOM FACILITIES

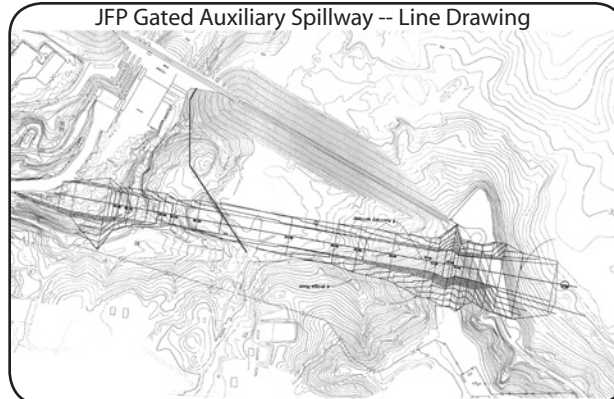
Reclamation is responsible for the safety, security, and structural integrity of Folsom Dam. Reclamation is actively assessing structural improvements for three Dam Safety issues, including: hydrologic (overtopping or failure during a large flood event), static (leakage through earthen dams and dikes), and seismic (movement of the dam during an earthquake). In addition, Reclamation is proposing to upgrade security features for the Folsom Facility.

FLOOD DAMAGE REDUCTION

The Corps is the primary Federal flood management agency in the region. The Corps coordinates flood control operations with Reclamation, The Department of Water Resources, The Reclamation Board of the State of California, and the Sacramento Area Flood Control Agency (SAFCA). The Corps has prepared a Draft Post Authorization Change (PAC) report that is available for public review concurrent with the Draft EIS/EIR. The PAC report describes recommended changes to the Folsom Dam Modifications and Folsom Dam Raise Projects.

JOINT FEDERAL EFFORT

This Draft EIS/EIR addresses project alternatives that include elements of the individual missions of Reclamation and the Corps. The alternatives in the document incorporate actions that both agencies could take jointly to address common hydrologic concerns (the "Joint Federal Project") and actions that could be implemented separately to address specific dam safety, security, and flood damage reduction under specific authorizations and appropriations. For this Draft EIS/EIR, the Corps is a cooperating agency, and intends to adopt the Final EIS/EIR to satisfy NEPA requirements for the flood damage reduction elements of the selected alternative. The Reclamation Board is the CEQA lead agency, and SAFCA is a responsible agency under CEQA.



EIS/EIR PROCESS

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Decision Making and EIS/EIR Process

The National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) are both processes that provide an opportunity for the public and agencies to help clearly identify and define environmental issues and alternatives to be examined for a proposed action. The NEPA/CEQA process is intended to help public officials make decisions and take corrective actions based on an understanding of the environmental consequences.

How is the Public Involved?

The public is involved at three stages of the EIS/EIR process. First, the public is invited to make comments and suggest alternatives to the project during project scoping (see Scoping below). Second, the public is asked to comment on the results of the environmental analyses described in the Draft EIS/EIR (one of the purposes of this meeting). Third, the public is allowed to comment on the Final EIS/EIR and Environmentally-Preferred Alternative, particularly in the manner that comments on the Draft EIS/EIR were addressed.

Scoping

Scoping meetings were held by Reclamation, the Corps, the Reclamation Board and SAFCA in December 2005 to receive initial public comments on the Folsom Dam Safety/Flood Damage Reduction Action.

Public Review and Comment on the Draft EIS/EIR

The purpose of these hearings is to present the five alternatives analyzed in the Draft EIS/EIR and to present the tentatively preferred alternative. The general public and Federal and State agencies are invited to provide comments in person, by mail, or by email or fax. All comments are due by close of business January 22, 2007. Comments received during the 50-day review period will be addressed in the Final EIS/EIR.

Public Review of Final EIS/EIR

Once the Final EIS/EIR is complete, it will be released for a 30-day period before Reclamation prepares and adopts a decision. It is during this period that the Corps will circulate its Notice of Intent to adopt the Final EIS/EIR and the Reclamation Board will certify the Final document.

An Environmentally-Preferred Alternative — CEQA Requirement

Draft EIS/EIR

The Draft EIS/EIR identifies Alternative #3 (the JFP Gated Auxiliary Spillway with Potential 3.5-foot Parapet Wall Raise) as the environmentally preferred alternative that meets the Purpose and Need of the Folsom DS/FDR action.



WHAT ARE THE ROD AND NOD?

- The Record of Decision (ROD) is the final step of the NEPA process.
- Multiple RODs may be developed to correspond with each agency's authorities and authorizations.
- The ROD(s) will document the alternative or alternative features selected by Reclamation and the Corps, in concert with the Reclamation Board and SAFCA.
- The ROD(s) will identify all of the alternatives considered and summarize and address comments received on the Final EIS/EIR.
- The ROD(s) will include measures to avoid or minimize effects from the selected alternative.
- A Notice of Determination (NOD) will complete the CEQA process for California.



operational problem

storms of 86

Gate fails

Corps' dam raise/Folsom modification

Reclamation Safety of Dams Evaluation

Reclamation & Corps seeking solutions

October 2005: Notice of Intent/Notice of Preparation (NOI/NOP) of Draft EIS/EIR

December 2005: Scoping Meetings

Dec. 2005 to Dec. 2006: Draft Environmental Impact Statement/ Environmental Impact Report

January 2007: Public Review and Comment on the Draft EIS/EIR
(You are Here)

March 2007: Final EIS/EIR

May 2007: Record of Decision/ Certification and Notice of Determination (ROD/NOD)

Late Fall 2007: Construction Begins