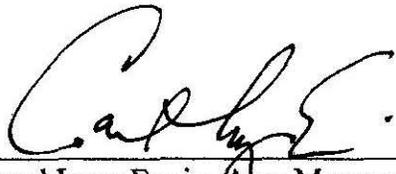


United States Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Phoenix Area Office

FINDING OF NO SIGNIFICANT IMPACT

ASAAYI DAM
SAFETY OF DAMS REHABILITATION PROJECT
MCKINLEY COUNTY, NEW MEXICO

Approved: _____


Carol Lynn Erwin, Area Manager
Phoenix Area Office
Bureau of Reclamation

Date: _____

3/8/06

FONSI No. PXAO 06-01

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, and based upon the analysis presented in the attached *Final Environmental Assessment, Asaayi Dam Safety of Dams Rehabilitation Project*, the Bureau of Reclamation (Reclamation) has determined that the proposed modifications to Asaayi Dam and Spillway will not result in a significant impact on the human environment.

BACKGROUND

Inspections conducted by the Navajo Nation Safety of Dams (SOD) Program and Reclamation have identified potentially serious deterioration of the outlet works pipe and toe drain system of Asaayi Dam. The inspections revealed corrosion and leaking joints in the outlet works pipe, inoperable toe drain pipes, and seepage on the downstream face of the dam. If not corrected, these deficiencies could lead to internal erosion of the dam and slope instability on the downstream embankment.

Concern has also been expressed that the spillway is not capable of passing the 10,000-year flood event, which is estimated to be 24,100 cubic feet per second (cfs). The spillway was designed to pass 10,700 cfs, lacking the desired capacity by 13,400 cfs. Under existing conditions, flows associated with the 10,000-year flood (and likely smaller storm events) would overtop the crest of Asaayi Dam and possibly cause catastrophic failure of the dam.

Reclamation, working in conjunction with the Navajo Nation SOD Program and Bureau of Indian Affairs, has identified a Preferred Action to correct safety deficiencies associated with Asaayi Dam. The Preferred Action consists of the following measures:

- Construct a new 150-foot-long spillway that is capable of passing the 10,000-year flood event. This would replace the existing spillway.
- Raise the crest height of the dam 4 feet. This would provide the necessary downstream embankment configuration needed for installation of a new toe drain, filter, and buttress to address seepage and stability issues.
- Construct new intake and outlet structures. The new outlet structure will include a stilling basin and pressurized irrigation pipe.
- Slipline the existing outlet works pipe with a double walled high-density polyethylene pipe. This would resolve the issues concerning corrosion/seepage within the outlet works pipe and inability to safely evacuate the reservoir.
- Construct a 300-foot-long vehicle bridge across the spillway approach channel to improve routine and emergency access to the dam for Navajo Nation SOD personnel.

In July 2005, scoping information was mailed to public agencies, tribal governments, and interested individuals. One letter of comment was received from the Natural Resources Conservation Service requesting to be included in the review process for design of the proposed irrigation outlet works. No other written comments were received by Reclamation.

A public scoping meeting was held on November 16, 2005, at the Red Lake Chapter in Navajo, New Mexico. Fourteen people from the local community, Mexican Springs Chapter, Navajo Nation SOD Program, BIA, and Reclamation attended the meeting. Attendees voiced interest in

construction timelines and phasing, discharge capacity of the proposed irrigation outlet works, and possible impacts to recreation and the sport fishery.

A public draft EA disclosed the environmental consequences of four alternatives, including the Preferred Action and no action. The draft EA was mailed to 29 potentially affected or interested individuals and agencies for a 30-day public review period on November 22, 2005. In addition, a news release was issued to the Navajo Times and other news media serving the Four Corners area regarding the availability of the draft EA. The draft EA was also available on Reclamation's Phoenix Area Office website. One respondent submitted written comments on the proposed SOD project. These comments and Reclamation's responses are included in Appendix F of the final EA.

FINDING OF NO SIGNIFICANT IMPACT

Based on a review and evaluation of the information contained in the attached final EA, Reclamation has determined that implementation of the Preferred Action does not constitute a major Federal action significantly affecting the human environment, and that preparation of an Environmental Impact Statement is not warranted. This decision is based upon the following considerations.

1. The proposed project will reduce the probability of dam failure and associated risk to the public.
2. Impacts to floodplains and wetlands have been evaluated in accordance with Executive Orders 1988 and 11990, respectively. The proposed project will have no significant effect on wetlands, riparian areas, floodplains, or other ecologically sensitive areas.
3. Temporary dewatering of the lake for construction would not have a significant effect on water resources or aquatic life. The terms, conditions, and pollution prevention measures of Clean Water Act Section 401, 402, and 404 permits/certifications will be incorporated into the project. Normal lake operations will resume following construction. Stocking by the Navajo Fish and Wildlife Department will restore the coldwater sport fishery. There will be no substantive change to water quality as a result of the proposed project.
4. Construction will not significantly affect land use and recreation. The existing SOD lake level restrictions have limited irrigation opportunities for downstream farmers. Delivery of water through the new pressurized outlet works will improve reliability of the irrigation system and provide long-term benefits for farmers. Recreation closures due to construction will be temporary. There will be no substantive change to water use as a result of the proposed project.
5. Disturbances to soils will be ameliorated through appropriate erosion control, site stabilization, and reseeded.

6. Construction will have a minor effect on air quality. Dust abatement practices will be implemented during construction. No Class I airsheds or nonattainment areas will be affected.
7. A Class III intensive cultural resource survey of the project area and consultation with the Navajo Historic Preservation Department has been completed in accordance with Section 106 of the National Historic Preservation Act. The project will incorporate appropriate mitigation to avoid any known cultural resources.
8. A documented Navajo gravesite located within the project area will be fenced and avoided during construction.
9. Reclamation initiated consultation with the Hopi Tribe, Pueblo of Zuni, and Navajo Nation regarding the presence of traditional cultural properties (TCPs) in the project area. No TCPs were identified by these tribes.
10. A list of threatened and endangered species for the project area was obtained from the U.S. Fish and Wildlife Service and the Navajo Nation Natural Heritage Program. A field inventory was performed, and a biological evaluation of the listings was included in the EA. The project will not affect federally listed species, nor impact Groups 1 through 3 of the Navajo Endangered Species List (NESL). Potential minor impact to peregrine falcon, a NESL Group 4 species, will be mitigated.
11. Cumulative impacts on land, water, biological, cultural, and human resources are not significant.
12. The project will not adversely affect low income or minority populations as defined by Executive Order 12898, Environment Justice.
13. Project implementation will enhance the value of Indian Trust Assets associated with Asaayi Lake. The project would have the long-term benefit of preserving Navajo Nation access to water and fishing rights at the lake.
14. All construction waste will be managed in accordance with the Resource Conservation and Recovery Act and tribal requirements.
15. The project does not involve unique or unknown risks to the human environment, nor is it highly controversial.
16. The mitigation identified in the final EA will be implemented during construction.

Documents related to this action are identified below.

Bureau of Reclamation. 2005. Project Plan for Final Design - Asaayi Dam, New Mexico. Denver, Colorado.

Bureau of Reclamation. 2006. Final Environmental Assessment, Asaayi Dam Safety of Dams Rehabilitation Project. Phoenix, Arizona.