

RECLAMATION

Managing Water in the West

Finding of No Significant Impact

Anderson Ranch Dam Security Enhancement Project

PN-FONSI 10-07

**Boise Project, Arrowrock Division,
Snake River Area Office, Boise, Idaho**



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July 2010

Introduction

In accordance with the National Environmental Policy Act (NEPA), the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) has prepared a Draft Environmental Assessment (EA) that evaluates the environmental effects of Reclamation's proposed Anderson Ranch Dam Security Enhancement Project.

The purpose of the project is to address security vulnerabilities at Anderson Ranch Dam. Corrective action is needed because the dam is vulnerable to explosives that could be carried by a motor vehicle traveling on Anderson Dam Road across the dam crest. The proposed action is an interim measure until a final dam safety solution is determined.

Anderson Ranch Dam is located 28 miles northeast of the City of Mountain Home in Elmore County, Idaho. The dam is a zoned-earthfill embankment that impounds Anderson Ranch Reservoir, with a crest length of 1,350 feet. Anderson Dam Road crosses the dam and serves as a main access to the west side of the reservoir, the South Fork of the Boise River, and areas north and east of the reservoir, including the town of Prairie and the Trinity Mountains. The proposed interim security enhancement project focuses on the section of the access road that crosses the crest of the embankment.

In conjunction with this security project, Reclamation is also investigating dam safety measures at Anderson Ranch Dam related to potential seismic or overtopping events. Because these ongoing investigations may determine that the dam requires a major structural modification, the current need is for an interim measure to reduce security vulnerabilities until a final dam safety solution is determined. The final dam safety solution will likely be decided in five to seven years.

Alternatives Considered and Recommended Action

Conceptual engineering designs were initially developed for three permanent action alternatives that included two crest-raise options and a crest-widening option. Reclamation initially considered one interim alternative that involved constructing a median barrier for the road over the dam crest. The interim alternative was the only action alternative advanced for further consideration, since Reclamation is also investigating safety issues at the dam that could determine the need for additional structural modifications in the future. Reclamation decided that a long-term solution to the dam's security vulnerability would be incorporated into the safety of dams project if structural modifications are required.

The initial interim alternative (median barrier) was presented to the public and agency stakeholders in August 2009. In response to stakeholder concerns related to snow removal and access for large vehicles and equipment, Reclamation developed an interim 4-foot crest-raise alternative that became the proposed action in Reclamation's Draft EA.

Alternatives that were considered in detail in this EA include the proposed action (interim 4-foot crest-raise) and the No Action Alternative, as required by NEPA. The proposed action would raise the existing dam crest by 4 feet and include a 19.5-foot travel lane with jersey barriers on each side of the travel lane. This lane would be designated to allow one-way traffic in either direction, with adequate width for farm and maintenance equipment, trucks, and other oversized vehicles. Signage would be posted at each end of the dam to notify travelers of dam-crossing procedures.

The Draft EA was mailed to more than 50 agencies, tribes, organizations and individuals for a 30-day comment period. Comments were received from the Mountain Home Highway District and three individuals (total of four comments). Comment summaries and Reclamation's responses to comments are attached to this finding of no significant impact (FONSI).

Consultation, Coordination, and Public Involvement

Reclamation first announced its proposal to implement security measures at Anderson Ranch Dam through a news release on July 16, 2008. In July 2009, Reclamation mailed a scoping document to approximately 80 Federal, state and local government officials and other known and potential stakeholders. An article was published in local newspapers describing the proposed interim security measures and announcing a public open house and other opportunities for public and agency involvement. Fliers were distributed one week before the public open house in the communities of Pine and Prairie.

Reclamation hosted a public open house on August 4, 2009, in the community of Pine to provide information about the project and opportunities for public involvement as part the NEPA process. The public meeting provided the opportunity to gather public input on the proposed action. Comments were accepted during the 30-day public scoping period after the open house. Seven written comments were received – two from agencies or local governments and five from individuals.

Following the open house, Reclamation representatives met with the Mountain Home Highway District (District) on August 6, 2009, to address maintenance and snow removal for Anderson Dam Road across the dam. To meet the District's requests, the original alternative was modified to a 4-foot crest-raise alternative, which Reclamation selected as the proposed action.

Summary of Environmental Effects

Transportation and Access – The proposed action would not permanently affect access to surrounding areas associated with or near Anderson Ranch Reservoir, including the town of Prairie or the South Fork of the Boise River. The 19.5-foot travel lane would be designated to allow one-way traffic in either direction with adequate width for farm and maintenance

equipment, trucks, and other oversized vehicles. Anderson Dam Road across the dam crest would be closed during construction, which would temporarily affect access and travel. Travelers to and from the Prairie area, and to and from recreation areas, would have to use Cow Creek Road or Blacks Creek Road. Construction activities would occur during the non-winter months to allow access along Cow Creek Road while the dam crest is temporarily closed. Construction is anticipated to take approximately two months.

Reclamation has agreed to provide the District with equipment to facilitate efficient snow removal.

Recreation – The proposed action would cause only minimal short-term impacts. Anderson Dam Road across the dam crest and the small recreation site at the left abutment would be temporarily closed during construction, which would affect convenient access to recreational destinations and facilities for some users during this period.

Cultural Resources – Based on consultation between the Idaho State Historic Preservation Office (SHPO) and Reclamation, it was determined that no cultural resources would be effected by the proposed action. Furthermore, because the proposed action is interim, placement of the 4-foot raised crest is considered reversible.

Environmental Justice – Census data indicates that there are few, if any, minority populations in or near the project area. Construction of the proposed action would not result in any significant and adverse impacts on any minority or low-income populations.

Indian Trust Assets – The project would not affect any tribal rights to hunt and fish. Impacts on water quality, fish and wildlife would be minimal.

Threatened and Endangered Species – The project would have no affect on listed Threatened and Endangered species in the project area. Listed species that occur in Elmore County are Snake River physa snail, Bliss Rapids snail, bull trout Canada lynx, and slickspot peppergrass.

Cumulative and Indirect Impacts – A reasonable, foreseeable future action is possible dam safety modifications. At this time, the magnitude of any future modifications and associated impacts and mitigation are unknown. If necessary, such action, associated impacts, and potential mitigation would be addressed through the NEPA process. If dam modifications are done in the future, the interim action would be removed to allow modification of the dam crest and/or spillway.

No present or reasonably foreseeable future actions at Anderson Ranch Dam or the surrounding area would have additive or interactive impacts on the environmental resources affected by the proposed action.

Changes to the Draft EA

Reclamation received four letters commenting on the Draft EA, only one of which requested or required revisions to the proposed action. Reclamation has made three changes to the proposed action based on comments from the District. Those changes are:

- 1) A 3-inch asphalt surface would be placed on top of the raised roadway.
- 2) Reclamation would work with the District to develop electronic traffic control signals at each end of the dam.
- 3) The construction period is estimated at two months rather than three.

These revisions would not substantially change the environmental impacts discussed in the Draft EA. Therefore, a final EA will not be prepared. The findings of this document are based on the Draft EA and the attached comment summary and responses.

Finding

Based on the analysis of the environmental impacts presented in the Draft EA and consultation with potentially affected agencies, tribes, organizations, and the general public, Reclamation concludes that implementation of the proposed action will not have a significant effect on the quality of the human environment or natural and cultural resources. The effects of the proposed action will be minor and localized. Therefore, preparation of an environmental impact statement (EIS) is not required.

Recommended:

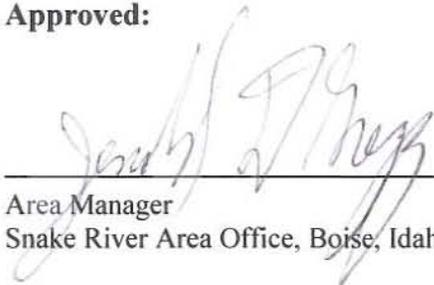


Area Office Environmental Specialist
Snake River Area Office, Boise, Idaho



Date

Approved:



Area Manager
Snake River Area Office, Boise, Idaho



Date

ATTACHMENT 1 – Comments and Responses

Responses to Mountain Home Highway District (Letter to Reclamation May 6, 2010)

Comment 1: A minimum of a 3-inch lift of asphalt needs to be shown on the cross-section. This is essential for drainage. Normal maintenance on a gravel surface would plug any drain holes in the barricades.

Response: Reclamation has agreed to placement of a 3-inch asphalt surface and drains have been added to the design.

Comment 2: Some kind of signal should be installed such as red and green traffic lights in order to avoid a potential jam on top of the dam. The proposed 19.5 feet is not two lanes.

Response: Reclamation would work with the District to develop electronic traffic control signals at each end of the dam.

Comment 3: The commissioners felt that because one of the barricades would be 3 feet tall that we may be able to get the snow over it but they wanted to leave the possibility open for a snow blower as discussed earlier.

Response: As stated on page 3-2 of the Draft EA, under mitigation summary, because the proposed action would impact snow removal across the dam crest, Reclamation would provide the District with equipment to facilitate efficient snow removal.

Comment 4: The Commissioners felt that the 7.5% grade on the right abutment may be too steep for a loaded semi-truck to get started after stopping for traffic.

Response: As stated on page 2-3 of the Draft EA, a 100-foot ramp at four percent grade would be required to meet the 4-foot raise across the crest at the right abutment. To achieve a four percent transition to the crest raise, the new transition ramp would extend to the opposite side of Road 113 and extend both upstream and downstream along Road 113. The grade to the west, along South Fork River Road, is existing and no changes to that grade are proposed.

Response to Mr. Mike Neary (Email to Reclamation, May 5, 2010)

Comment 1: If you put all the pressure on the Cow creek access we will see more wear and tear on the road and increase the probability of an accident in the already inaccessible area. While I view no cell phone coverage in the drainage a plus... decreasing access could put people in a dangerous situation if they ever needed help.

Response: The construction period will be chosen to limit impacts to recreational travel during the summer months. The District has not indicated, in discussions with Reclamation, that it expects unusual wear and tear on alternate routes travelers would take for the two months during construction and the amount of additional traffic is not likely to cause safety issues. Following

construction, visitors would still be able to use Anderson Dam Road across the dam crest to access recreational facilities and other opportunities.

Response to Robert White (Email to Reclamation, April 27, 2010)

Comment 1: I cannot think of a bigger waste of \$700,000! Do you do a risk benefit analysis on these types of projects? First of all, what is the likely hood of a terrorist attack on this Dam. And secondly, what would happen if there was? There are two other dams downstream from this one.

Response: Reclamation completed in-depth security assessments of its facilities and a full-scale evaluation of potential vulnerabilities to terrorist attacks at certain facilities. Reclamation's Safety, Security, and Law Enforcement Office identified vulnerabilities at a number of Reclamation dams, including Anderson Ranch Dam. The studies determined that the dam is vulnerable to explosives that could be carried by a vehicle traveling across the dam on Anderson Dam Road. The details of the study are confidential for security reasons.

Response to Steve Wingert (Email to Reclamation April 29, 2010)

Comment 1: I really feel that this is a unneeded modification to the dam. I am a heavy recreational user of the Anderson Ranch/Fall Creek area and cross the dam several times a year, both for winter and summer activities. With a single lane road over ¼ mile long, traffic will be negatively affected. The alternate access to boat launch and campgrounds on the north side of the reservoir (elk creek, fall creek, etc) are not acceptable alternatives. Access from pine is congested and would add an hour or more to the trip. The alternate forest service/county gravel roads are narrow, winding, and have some very steep grades. Four wheel drive vehicle would often be required to utilize Black Creek access and the cow creek access is kind of out of the way. Wintertime access on those roads is hit and miss at best. I'm curious, just how big of a "boom" would it take to seriously damage the dam to failure, and how would that be directed downward to do the most damage?

Response: For the proposed action, Anderson Dam Road would remain open except for two months during construction. Thus, access to areas north of the dam would be the same as it is today. Construction activities would occur during the non-winter months to allow access along Cow Creek Road while the dam crest is temporarily closed. The construction period will be chosen to limit impacts to recreational travel during the summer months. Following construction, visitors would still be able to use Anderson Dam Road across the dam crest to access recreational facilities and opportunities. Electronic traffic signals would minimize any traffic delays across the dam once the project is completed

Regarding dam failure, Studies were conducted by Reclamation's Safety, Security, and Law Enforcement Office and are confidential for security reasons. The studies determined that the dam is vulnerable to explosives and that enhancement of security at the dam is justified.