

**FINAL
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
JACKSON HOLE FLOOD PROTECTION PROJECT
OPERATIONS AND MAINTENANCE
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
SUPPLEMENT NUMBER 1
JACKSON, WYOMING
JUNE 2018**

1. INTRODUCTION/PROPOSED ACTION

The Walla Walla District of the U.S. Army Corps of Engineers (Corps) is supplementing National Environmental Policy Act (NEPA) documentation for the operation and maintenance (O&M) program for the Federal and non-Federal levees that make up the Jackson Hole Flood Protection Project (JHFPP) along the Snake and Gros Ventre Rivers near the town of Jackson in the northwest corner of Wyoming. The Supplemental Environmental Assessment (SEA) evaluates current and proposed O&M actions and associated potential environmental effects that may not have been adequately addressed in the April 1990 *Jackson Hole, Wyoming Flood Protection Project O&M Decision Document and Environmental Impact Statement* (1990 O&M Decision Document/EIS) (Corps, 1990). The SEA is tiered to and incorporates by reference the 1990 O&M Decision Document/EIS. The Corps is proposing to continue to operate and maintain the JHFPP consistent with its authorized purposes, while minimizing adverse effects to the environment.

2. PURPOSE AND NEED

The purpose of the proposed action is to continue to operate and maintain the JHFPP for the authorized project purpose of flood risk management, in accordance with Section 840 of the Water Resources Development Act (WRDA) 86:

“The project for Jackson Hole Snake River local protection and levees, Wyoming, authorized by the River and Harbor Act of 1950 (PL 81-516), is modified to provide that the operation and maintenance of the project, and additions and modifications thereto constructed by non-Federal sponsors, shall be the responsibility of the Secretary: Provided, that non-Federal sponsors shall pay the initial \$35,000 in cash or materials of any such cost expended in any one year, plus inflation as of the date of enactment of this Act”.

WRDA 86 only authorizes the Corps to take on the responsibility of O&M for the JHFPP. It does not provide authority to construct additional levees or perform new construction on the existing levees to modify the level of flood risk management.

The proposed action is needed for several reasons beyond the overarching need of ongoing flood risk management. Some of the project O&M needs and conditions have changed since the Corps assumed O&M responsibility for the levee system in 1990. Some of these changes are the result of the 1990 O&M Decision Document/EIS simply not addressing certain O&M actions (e.g., repair/replacement of culverts). Other changes are because of differing interpretations of levee management requirements. Additionally, some conditions at the project have changed and present new circumstances or information relevant to environmental concerns with O&M of the levee system. The Corps has determined the 1990 O&M Decision Document/EIS does not clearly address these changes/new conditions and supplemental NEPA documentation should be prepared. These changes or new conditions are described below:

a. The Corps policy is to manage vegetation on its levees as per the standard in Engineering Technical Letter 1110-2-583. This standard generally requires the levee prism (the crown or top and the sides down to the toe) be free of woody vegetation, as well as a clear zone 15 feet on each side of the levee extending from the toe outward. Although this standard was in effect at the time the 1990 O&M Decision Document/EIS was prepared, the requirements for the clear zone were not described in the O&M Decision Document/EIS and the Corps has not been removing woody vegetation from all of the landward side of the levees or the clear zone on either side of the levees. This is because the Corps has limited funding and has had to prioritize O&M activities. The Corps had determined other O&M activities had a higher priority for providing flood risk reduction than removal of the woody vegetation from the entire landward side of the levees and the clear zones. The Corps is now proposing to comply with the guidelines and remove this vegetation, unless a vegetation variance from Corps Headquarters can be obtained.

b. Repair/replacement of aging features - Some features of the levee such as culvert headgates and headwalls and the culverts themselves are now 50 years old and need to be repaired or replaced. Without the repair or replacement, the culverts may not function properly and could adversely affect operation of the levee system and threaten the integrity of the levees. The O&M Decision Document/EIS addressed culvert cleaning, but not culvert repair or replacement.

c. Reconfiguration or addition of features - Some of the features (turnarounds) need to be reconfigured to accommodate changes in equipment. Some of the existing turnarounds along the levees are not wide enough to accommodate the turning radius of the equipment such as side-dump trucks and dump trucks with pup trailers currently being used to transport riprap and rock fill materials. Vehicular access to the levees is only on designated roads or the crown of the levees. It is not practical for the trucks to back down the levee as it may be several miles to an access road. To allow these vehicles to back into a turnaround area to perform a three-point turn, the Corps is proposing to extend some of the existing turnarounds or construct new turnarounds. This may require acquisition and development of additional land under easement and was not addressed in the 1990 O&M Decision document/EIS.

d. New circumstances or information relevant to environmental concerns:

1. Identification of biological resource work windows - Timing of some maintenance activities needs to be responsive to requirements of environmental compliance or protection laws that were not considered in the O&M Decision Document/EIS. This is mostly related to nesting birds. The O&M Decision Document/EIS addressed restrictions and impact avoidance measures associated with bald eagle nesting in the vicinity of the levees when the species was protected under the Endangered Species Act (ESA); however, it did not address similar issues with nesting migratory birds, or changes in restriction for eagles following delisting of the species under ESA. Bald eagle nesting restrictions are now addressed through the Bald and Golden Eagle Protection Act.

2. Need to address effects of O&M actions on wetlands – Some of the O&M actions may have an adverse effect on wetlands and this effect was not adequately addressed in the O&M Decision Document/EIS. The O&M Decision Document/EIS addressed the effect levee construction had on wetlands, but did not adequately address the effects of the O&M actions. Proposed actions such as removal of woody vegetation from the 15-foot clear zone and extension of the turnaround areas have the potential to affect wetlands protected under the Clean Water Act and/or Executive Order 11990 Protection of Wetlands.

e. Addition of measures to protect levee function – The Corps has identified a need to add some structures to protect at least one of the levees. At the John Dodge levee, a gravel bar in the Snake River has been directing river flows toward the levee and undercutting the toe. The Corps recently rehabilitated the levee, but the undercutting has steepened the slope again. The Corps is currently considering two potential options to protect the levee. One option is to re-establish a 2:1 slope on the waterward side of the levee, then construct several rock barbs or weirs along the toe upstream of the damaged area. The rock barbs would encourage the flow to remain in the river channel and reduce water velocities to alleviate undercutting. A second option is to change the slope of the levee to a flatter slope such as 2.5:1 or 3% that would reduce undercutting. These options would not change the level of flood risk management provided by the levees. The need for implementing and maintaining levee protection measures was not addressed in the 1990 O&M Decision Document/EIS.

3. ALTERNATIVES CONSIDERED

The Corps considered four alternatives for the continued O&M of the JHFPP:

- Alternative 1 - No Action/ No Change to Current O&M Activities (continued maintenance operations as currently being performed).
- Alternative 2 (Proposed Action) - Updated O&M Practices (continued O&M with some updating/modification to the work schedule, practices, and maintenance actions).

- Alternative 3 - Modification of Project with Future O&M (O&M similar to Alternative 2 but with reconfiguration, modification, relocation, or addition of levees).
- Alternative 4 - Updated O&M Practices with Variance Allowing for Increased Levee Vegetation (same as Alternative 2 but with a variance to allow some woody vegetation to remain on the landward side of the levees).

The Corps identified screening criteria to determine which alternatives to consider further. These criteria are:

- allow for continued O&M of the JHFPP at the same level of flood risk management as provided by the levee system at the time the Corps assumed O&M under WRDA 86
- be consistent with WRDA 86 and the Local Cooperation Agreement (LCA) dated September 1990 (not involve expansion of the existing levee system or construction of new levees)
- comply with applicable Corps regulations and guidance, including ETL 1110-2-583
- be technically feasible
- be environmentally acceptable

Alternative 1, the No Action/No Change Alternative, does not fully meet the purpose and need as it does not comply with the levee vegetation removal actions of ETL 1110-2-583, but was carried forward as required by NEPA to set the baseline from which to compare all other alternatives. Alternative 2 meets all of the criteria and was carried forward for further analysis and is the proposed action.

Alternative 3 was not carried forward for further consideration as it did not meet the first two screening criteria. This alternative includes provisions to raise or lower the levees, which would not maintain the same level of flood risk management as the levees provided when the Corps assumed O&M responsibilities. This alternative also includes constructing additional levees, which would change (increase) the level of flood risk management and would involve new construction, and thereby violates the screening criteria. Constructing new levees to replace existing levees could maintain the same level of flood risk management, but would violate the criteria for no new construction. New levees are also outside the scope of this SEA, which is addressing O&M, not changing the way the JHFPP provides flood risk management.

Alternative 4 would not comply with applicable Corps regulations and guidance, including ETL 1110-2-583, unless a vegetation variance was approved. The ETL states a vegetation variance must meet the following criteria:

- The variance must be shown to be necessary, and the only feasible means, to (1) preserve, protect, and enhance natural resources, and/or (2) protect the right(s) of Native Americans, pursuant to treaty and statute.
- The variance must retain (1) safety, structural integrity, and functionality, and (2) accessibility for maintenance, inspection, monitoring, and flood fighting. The

term “retain” assumes a pre-variance condition that is fully consistent with the requirements in the ETL.

This alternative meets the screening criteria, if a vegetation variance is approved.

4. ENVIRONMENTAL EFFECTS

Alternative 1 No Action/No Change, Alternative 2 Updated O&M Practices (Proposed Action), and Alternative 4 Updated O&M Practices with Variance Allowing for Increased Levee Vegetation were analyzed for potential effects to the following resources: Water Quality, Air Quality, Channel Morphology, Fish/Aquatic Resources, Wetlands, Vegetation, Wildlife, Threatened and Endangered Species, Land Use, Transportation, Socioeconomics, Recreation, Aesthetics/Visual Resources, Cultural Resources, Climate Change, and Cumulative Effects.

The analysis is detailed in Section 3 of the SEA. The analysis concluded there may be some short-term adverse effects to some resources (Water Quality, Wetlands, Vegetation, Wildlife, Aesthetics/Visual Resources) from Alternative 2 (Proposed Action), but overall long-term effects on all analyzed resources would be insignificant. These effects include removal of woody vegetation from the levee prism and adjacent clear zone and creation of turbidity when working in-water. The Best Management Practices presented in Appendix A of the SEA would help minimize adverse environmental effects of the JHFPP O&M activities.

The analysis concluded environmental effects from Alternative 4 would be similar, but less than Alternative 2 on Water Quality, Wetlands, Vegetation, Wildlife, Threatened and Endangered Species, Land Use, Aesthetics and Visual Resources, Cultural Resources, and Climate Change due to clearing less vegetation if a variance were approved.

The Corps also considered the cumulative effects of the proposed action along with other past, present, and reasonably foreseeable future actions in the JHFPP area. The Corps focused its cumulative effects analysis of past, present, and reasonably foreseeable future actions on riparian vegetation along the Snake River because this resource was determined to be notable for its importance to the area and its potential for cumulative effects. The Corps determined that woody vegetation removal on the JHFPP would reduce the amount of riparian vegetation growing adjacent to the levees and set back succession of the vegetation. However, the Snake River in the Jackson area is expected to continue to support a large amount of riparian vegetation. The potential effects of the proposed action, when combined with the effects of past, present and reasonably foreseeable future actions, is not expected to result in significant effects to the resources identified above.

5. PUBLIC COMMENT/INVOLVEMENT

Agency and public involvement regarding O&M of the JHFPP has been ongoing since preparation of the original EIS that was completed in 1990.

The Corps made the SEA and a draft FONSI available to individuals, businesses, organizations, and agencies for a 30-day review and comment period from March 9, 2018 – April 9, 2018. The Corps received three comment documents. Most of the comments expressed concern about effects on natural resources, particularly nesting bald eagles. The Corps revised the SEA were appropriate in response to these comments. A summary of the comments and the Corps' responses are attached to this document.

6. COMPLIANCE WITH OTHER LAWS AND REGULATIONS

Section 4 of the SEA provides a discussion of compliance with other laws and regulations. The proposed action complies with other Federal laws and applicable regulations. The Corps has filed a Notice of Intent and is complying with Wyoming Department of Environmental Quality's (WDEQ) Large Construction General Permit WYR10-0000 under the Clean Water Act Section 402. The Corps is also complying with WDEQ's Wyoming Pollutant Discharge Elimination System General Permit for Minor Pesticide Discharges. The Corps has also received Section 401 Water Quality Certification from WDEQ for on-going levee rehabilitation.

In compliance with Section 7 of the Endangered Species Act, the Corps has prepared a Biological Assessment (BA) tiered to the 1990 Biological Assessment for O&M of the JHFPP. The current BA addresses the updated O&M practices. The Corps sent this BA to the U.S. Fish and Wildlife Service (USFWS) on March 9, 2018 and requested concurrence with the Corps' "may affect but is not likely to adversely affect" determination for the yellow-billed cuckoo. The Corps received a letter from USFWS dated March 29, 2018 concurring with the Corps' effect determination.

The Corps has determined most of the proposed updated O&M activities would be consistent with its October 11, 1985 Programmatic Agreement with the Wyoming State Historic Preservation Office. O&M activities that would involve new construction or work outside of the easement boundaries would require additional review under the National Historic Preservation Act.

7. CONCLUSION/FINDING

Having reviewed the Jackson Hole Flood Protection Project Operations and Maintenance SEA, I find the document provides sufficient discussions on the purpose and need for the proposed action, alternatives, the environmental effects of the proposed action and alternatives, and a listing of agencies and persons consulted. I have taken into consideration the technical aspects of the project, best scientific information available, and public comments received. These documents provide

sufficient evidence and analysis to meet the Corps' requirements pursuant to the National Environmental Policy Act. Based on this information, I find that implementation of the proposed action (Alternative 2) would not result in significant impacts on the quality of the human environment and that an environmental impact statement is not required. Additionally, I find that implementation of Alternative 4 (Updated O&M with a Vegetation Variance) would not result in significant impacts on the quality of the human environment and that an environmental impact statement is not required. The Corps will implement Alternative 2 (Updated O&M Practices/ Preferred Alternative) at the earliest opportunity, subject to availability of funding and competing project priorities. The Corps will transition to implement Alternative 4, if a vegetation variance is approved, at the earliest opportunity, subject to availability of funding and competing project priorities.



DAMON A. DELAROSA
Lieutenant Colonel, Corps of Engineers
Commanding



Date