Finding of No Significant Impact
Intake Diversion Dam Modification,
Lower Yellowstone Project

Approved: _____ 01 APR 2015

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Introduction

This finding of no significant impact (FONSI) describes the U.S. Department of Interior, Bureau of Reclamation's (Reclamation) and the U.S. Army Corps of Engineers' (Corps) finding and decision regarding the proposed Intake Diversion Dam Modification, Lower Yellowstone Project (Intake Project). This Supplement to the 2010 Final Environmental Assessment (Supplemental EA) prepared for this project explains and addresses the changes, and includes new or updated information related to improving fish passage at Intake Diversion Dam. It describes and discloses the changes in potential effects that could result from other alternatives that were considered to improve fish passage. This Supplemental EA is tiered (40 CFR Part 1502.20 and 1508.28) to the 2010 Intake Diversion Dam Modification Final EA (2010 EA) in order to reduce paperwork and eliminate repetitive discussions; it adopts and combines information (40 CFR Part 1500.4(n) and (o)) from the 2010 EA.

The environmental effects of the proposed Intake Project and public comments on the proposed action were evaluated under the provisions of the National Environmental Policy Act (NEPA), and are described in the Final Supplemental EA dated March 2015.

Selected Alternative – Bypass Channel Alternative

The selected alternative would require the construction of a new concrete weir to elevation 1990.5 ft. This new weir is required to reliably deliver water for irrigation purposes and fish passage. For fish passage the alternative includes the excavation and construction of an 11,150 ft long bypass channel. This channel will divert approximately 13 – 15% of the total Yellowstone River Flows. The bypass channel will be designed and constructed to the criteria specified by the U.S. Fish and Wildlife Service for flows, depths and velocities. The selected alternative was identified as the preferred alternative in the Draft Supplement EA. It is also considered to be the least costly alternative.

When compared to the Rock Ramp Alternative, the larger footprint of the Bypass Channel Alternative would result in more acres permanently affected in the channel migration zone (135 acres versus 26 acres). The larger footprint would also result in more lands, vegetation, and wildlife impacts, although it is expected that these impacts can be minimized or offset. The majority of permanent impacts are due to conversion of terrestrial habitat to riverine habitat in order to construct the bypass channel. This conversion of habitat is considered to be an acceptable trade-off due to the gain in ecological benefits of providing fish passage. Both action alternatives have potentially adverse effects on historic properties, but measures would be taken to minimize such effects. The Rock Ramp Alternative would result in closure and relocation of the boat ramp at Intake; the Bypass Channel Alternative would diminish access to a portion of

Joes Island but the effects are expected to be limited. However, in general, recreation opportunities are expected to improve under both action alternatives in the long term. The action alternatives would both be expected to improve fish passage for pallid sturgeon and other native fish, and are not expected to result in any long-term adverse impacts to any threatened or endangered species, or species of special concern.

The agencies believe that the bypass channel meets the purpose and need of this project, is better able to withstand ice forces, is more cost effective, has better passage potential over a wider range of river conditions (flows, depths and velocities), results in less fill being placed in the main channel of the Yellowstone River, has less impacts to the Intake FAS and Recreation, and has reduced O&M and lower construction costs.

Finding

This FONSI constitutes Reclamation's and the Corps' final decision with respect to the appropriate NEPA compliance for the proposed Intake Project. Reclamation and the Corps make the following specific findings:

1. Geomorphology - The Bypass Channel Alternative would have no effect on main channel bed slope. This alternative would permanently affect 147 acres in the Channel Migration Zone (CMZ) and add approximately 3,500 feet of bank stabilization structures. Short-term effects include temporary disturbance of 425 acres within the CMZ. The existing weir that was constructed in 1905 has effectively locked the channel in place in this reach resulting in minimal movement over the last 100 years. Additional bank stabilization to keep the bypass channel entrance stable and the construction of the new weir upstream of the existing weir is not expected to exacerbate impacts to the CMZ and geomorphology that already exist. Because the existing weir and associated infrastructure already limit the river's movement within the CMZ, the additional impact from the proposed bypass channel and weir are not considered to be significant. The bypass channel would also result in the loss of 9,000 ft of natural side channel habitat but this is expected to be compensated for by construction of the 11,150 ft long bypass channel. The backwater in the existing high flow channel will continue to provide habitat for small fishes and wildlife while the proposed bypass channel will provide much greater opportunities for fish passage in addition to aquatic habitat.

   All discharges of dredged or fill material into waters of the U.S. will be carried out in compliance with provisions of section 10 of the River and Harbors Act, section 404 of the Clean Water Act and requirements contained in the section 401 water quality certification.

2. Surface Water Quality - The Bypass Channel Alternative would cause temporary increases in turbidity and sedimentation during construction due to construction of the new weir and excavation of the bypass channel, but no long-term changes in water quality are anticipated. Because the Bypass Channel Alternative would not affect cumulative river flow quantity, point source discharges, or non-point source discharges after construction, all water quality effects would be temporary and are not considered to

be significant

All discharges of dredged or fill material into waters of the U.S. will be carried out in compliance with provisions of section 10 of the River and Harbors Act, section 404 of the Clean Water Act and requirements contained in the section 401 water quality certification.

3. Aquatic Communities - The Bypass Channel Alternative is expected to improve fish passage for native fish and compensate for the loss of the existing side channel resulting from Bypass Channel construction. (The Aquatic Communities section of the Supplemental EA supplements the analysis in the 2010 EA analysis for fish; other aquatic species are addressed in the 2010 EA.) As described in Final Supplemental EA Appendix I, Reclamation will monitor upstream passage through the proposed bypass channel and diversion structure.

   If success criteria established through coordination with the Service are not met, Reclamation and the Corps will investigate measures to address the deficiency.

4. Federally Listed and State Species of Special Concern - It is anticipated that the Bypass Channel Alternative would be beneficial to the pallid sturgeon and will have no direct and indirect effects on whooping cranes, and interior least terns and black-footed ferrets. Potential impacts to Sprague's pipit and greater sage grouse are anticipated to be temporary and minor. Likewise, it was determined that potential impacts to state-listed species are anticipated to be temporary and minor.

   The Bypass Channel Alternative is expected to improve passage for pallid sturgeon and compensate for the loss of the existing side channel resulting from Bypass Channel construction. As described in Final Supplemental EA Appendix I, Reclamation and the Corps will monitor the physical parameters associated with the bypass channel to ensure they are being met and Reclamation will monitor whether pallid sturgeon are passing upstream through the proposed bypass channel.

   If success criteria established through coordination with the Service are not met, Reclamation and the Corps will investigate measures to address the deficiency.

   Reclamation's Endangered Species Act section 7 consultation on construction of the Intake Project and O&M of the Lower Yellowstone Irrigation Project has not been concluded at this time. A final Biological Opinion (BO) is anticipated to be complete by July 2015. Construction will not proceed until the BO is completed and consultation is concluded. Prior to Intake Project construction, a determination will be made whether the BO would result in substantial changes in the proposed action relevant to environmental concerns or contains significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts that would warrant preparation of additional NEPA documentation. For the Corps, implementation of the Intake Project is in compliance with a Reasonable and Prudent

Alternative (RPA) in the 2003 Missouri River Amended Biological Opinion (BiOp) as amended by letter exchange in 2009, 2010 and 2013.

Some comments received during the public review period suggest an Environmental Impact Statement (EIS) is required due in part to the uncertainty of whether the bypass channel alternative will work for fish passage. Although not specifically identified, many of these same uncertainties apply to the rock ramp alternative also. Reclamation, the Corps, and the U.S. Fish and Wildlife Service (Service) believe the bypass channel would improve pallid sturgeon passage if implemented. Furthermore, any uncertainty that exists regarding success of the fish passage is related to how much it will benefit the pallid sturgeon rather than how much it will negatively impact the species. It is true that the ultimate success of the passage cannot be known with absolute certainty until it is constructed. That lack of certainty is due, in part, to the absence of scientific information related to pallid sturgeon life history and, specifically, river characteristics that are key for pallid sturgeon reproduction migration. In fact, some of this information about pallid sturgeon may always elude researches because it is beyond the state of the art of research capability. Additional NEPA analysis (e.g., an environmental impact statement) would therefore not provide additional certainty on success of the fish passage. The Corps and Reclamation have relied, in part, upon the Service's conclusion on potential benefits to the pallid sturgeon. According to the Service, in a letter dated 30 March 2015, "we continue to believe that the bypass channel is the best alternative to recover pallid sturgeon in the upper Missouri River". The letter also states, "providing for consistent and reliable upstream adult pallid sturgeon migration and unimpeded downstream movement of juvenile pallid sturgeon on the Yellowstone River is the best biological option for ensuring pallid sturgeon recovery in the upper Missouri River Basin" (Supplemental EA, Appendix N). For these reasons, as well as the lack of significant impacts identified in the EA, the Corps and Reclamation have determined that an EIS is not required.

5. Recreation - The Bypass Channel Alternative will have some temporary impacts to recreational opportunities such as camping, picnicking, boating, and fishing due to temporary closures, noise, dust, and restricted access to the river at certain times during construction. This alternative would also limit access to areas adjacent to and upstream from the dam on Joe's Island having some impacts to recreation, but these impacts would be limited. Paddlefish snagging opportunities, which would continue, might be less plentiful at the Intake Fishing Access Site and Joe's Island since paddlefish are expected to use the bypass channel and would likely not congregate to the same degree downstream of the weir as in the past. However, paddlefish snagging opportunities should improve upstream.

6. Social Economics - There are no significant regional economic impacts expected from changes in agricultural or recreation outputs. There would be short-term positive regional economic impacts associated with initial construction of the Bypass Channel Alternative, but these effects are small relative to the overall level of activity in the regional economy.

7. Lands and Vegetation - The wetlands and riparian habitat impacted by the Bypass Channel Alternative will be offset by the wetland, riparian, and aquatic habitat created by construction of the bypass channel and other actions to minimize and compensate for impacts (Final Supplemental EA Appendix I). Permanent impacts to approximately 46 acres of woodlands, shrublands, and grasslands would occur due to conversion to riverine habitat in order to construct the bypass channel. This conversion is considered to be an acceptable environmental trade-off due to the gain in ecological benefits of providing fish passage.

8. Wildlife - With actions to minimize effects and restore affected habitats (Final Supplemental EA Appendix I), impacts to mammals, amphibians, reptiles and migratory birds would be minor and temporary.

9. Historic Properties - The actions to minimize effects (Final Supplemental EA Appendix I) would offset any adverse effects and make the impacts insignificant. Actions to minimize effects would be carried out prior to initiating construction of the Intake Project.

10. Indian Trust Assets - The 2010 EA analysis determined there were no Indian Trust Assets identified in association with the proposed project, and therefore there would be no effects to Indian Trust Assets.

Decision

Reclamation and the Corps, as joint lead agencies for this proposed project, have decided to select and implement the Bypass Channel Alternative as it is described in the Final Supplemental EA. This alternative includes the construction of a new concrete weir and a bypass channel that will facilitate fish passage around Intake Diversion Dam. Implementation of the selected alternative will take place as soon as possible following completion of any remaining ESA consultation and pending the availability of funding through Congressional appropriation.

The Final Supplemental EA identifies a number of project features, best management practices, and environmental commitments that will compensate for or minimize adverse environmental effects which may result from construction and operation of the Bypass Channel Alternative. These measures are consolidated in Appendix I of the Final Supplemental EA, and include a commitment to develop and implement an adaptive management plan. Reclamation and the Corps commit to implementing the measures in Appendix I.

The Corps' participation in the proposed Intake Project is authorized by the United States Congress in the 2007 Water Resources Development Act (Public Law 110-114)(Act). Section 3109 of that Act authorizes the Corps to use funding from the Missouri River Recovery Program to assist Reclamation with compliance with federal laws, design, and construction of modification to the Lower Yellowstone Project for the purpose of contributing to ecosystem restoration.

Public and Agency Coordination:

In 2010 and 2014, the agencies held public meetings in Glendive and Sidney, Montana. The Draft Supplemental EA was distributed to the public for review and comment on April 2, 2014 for 30 days. The comment period was extended an additional 15 days and ended on May 16, 2014. During this time, the 2010 Final EA and 2010 Finding of No Significant Impact were available for reference on Reclamation's Lower Yellowstone Intake Dam Modification website. The comments received on the Draft Supplemental EA were posted on the internet at: www.usbr.gov/gp/mtao/loweryellowstone/index.html. All comments received were carefully considered, and responses have been prepared to the substantive comments in Appendix L of the Final Supplemental EA.