Intake Diversion Dam Fish Passage

Lower Yellowstone Project - Intake, Montana

US Army Corps of Engineers®
Omaha District

Background

The diversion dam along the Yellowstone River at Intake, Montana was constructed by the Bureau of Reclamation in 1905 to divert water into the Lower Yellowstone Project's Main Canal to provide a dependable water supply sufficient to irrigate over 55,000 acres of land. For more than 100 years, the Intake Diversion Dam has likely impeded upstream migration of the federally-listed endangered pallid sturgeon and other native fish due to increased turbulence and velocities associated with the rocks at the Intake Diversion Dam.

The U.S. Fish and Wildlife Service listed the pallid sturgeon as endangered under the Endangered Species Act (ESA) in 1990. Section 7(a)(2) of the ESA requires federal agencies to consult with the Service to ensure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of any federally-listed species or to modify designated critical habitat. The lower Yellowstone River has been identified by the Service as an area of priority for pallid sturgeon recovery.

In 2007, the Corps received authorization under the Water Resources Development Act to use funds from the Missouri River Recovery Program to assist the Bureau of Reclamation with design and construction of modifications to the Lower Yellowstone Project for the purpose of ecosystem restoration.

Environmental Impact Statement (EIS)

The Corps and Reclamation, as joint lead agencies, have made available for public review and comment the Lower Yellowstone Intake Diversion Dam Fish Passage Project Draft Environmental Impact Statement (Draft EIS). The Draft EIS analyzes and discloses potential effects associated with the proposed Federal action to improve passage for endangered pallid sturgeon and other native fish at Intake Diversion Dam in the lower Yellowstone River while continuing the effective and viable operation of the Lower Yellowstone Project.

This document will be used to inform decision makers and the public of proposed actions, reasonable alternatives considered, and disclose potential environmental impacts. The agencies will consider public comments before final decisions are made. The Draft EIS is being issued for agency, tribal, and public review for a period of 45 days. EIS public meetings will be held in Sidney, Glendive, and Billings, Montana, to receive input. In addition, written comments in the form of letters and emails can be submitted to the Corps during the comment period.

At the end of the comment period, all comment letters will be reviewed by Reclamation and the Corps and will be responded to as appropriate in the Final EIS, anticipated to be issued in the fall of 2016. The Final EIS will also reflect any changes, modifications, or updates as a result of the comments received. No sooner than 30 days following the issuance of the Final EIS, the lead agencies may prepare a Record of Decision (ROD). The ROD explains the agencies' decision, describes the alternatives considered (including the preferred alternative), and describes the commitments made to protect the environment and proposed monitoring of the effectiveness of the commitments. Notices of availability for the Final EIS and the ROD will be sent to all agencies, tribes, and individuals who submitted comments on the Draft EIS.

The No Action Alternative and five action alternatives are evaluated in the EIS. A summary of the alternatives is provided in the table below.

ALTERNATIVES CONSIDERED IN THE EIS

No Action	Continue present operations of the Intake Diversion Dam and headworks to divert water from the Yellowstone River for irrigation as authorized. Under this scenario, Reclamation would be obligated to continue ESA consultation with the U.S. Fish and Wildlife Service. As a baseline in which to measure benefits and impacts of the action alternatives, the No Action Alternative assumes future conditions continuing the operation and maintenance of the Intake Diversion Dam without modification for improved fish passage.
Rock Ramp	This alternative would replace the existing rock-and-timber dam structure with a concrete weir and a shallow-sloped, un-grouted boulder and cobble rock ramp extending downstream well beyond the existing boulder field. The replacement weir would be located downstream of the headworks and approximately 28 feet upstream of the Intake Diversion Dam. It would create sufficient water height to divert the full water right of 1,374 cfs into the Main Canal.
Bypass Channel	This alternative would improve passage for pallid sturgeon around the Intake Diversion Dam by constructing a new bypass channel on Joe's Island. The bypass channel would extend from the upper end of the existing side channel to just downstream of the existing Intake Diversion Dam and boulder field. A replacement concrete weir would be built just upstream from the existing Intake Diversion Dam in order to provide sufficient water surface elevation to divert the full water right of 1,374 cfs into the Main Canal.
Modified Side Channel	This alternative would create an improved fish bypass using the existing side channel. The intent of this alternative is to increase flow in the existing side channel to attract migrating fish and to be passable for an extended period during most years. Under this alternative the existing Intake Diversion Dam would be maintained.
Multiple Pumps	This alternative would remove the Intake Diversion Dam down to the riverbed and construct five pumping stations with a cumulative capacity of 1,374 cfs on the Yellowstone River to deliver water to the Lower Yellowstone Project when gravity diversions through the existing headworks is not available. They would be constructed at locations along the Lower Yellowstone Project between the headworks and the community of Savage. The power demand for the pumps would exceed the capacity of the existing power system in this area, requiring uprating and extension of existing powerlines.
Multiple Pumps with Conservation Measures	This alternative would remove the Intake Diversion Dam down to the riverbed, install water conservation measures, construction and operation of multiple pump stations with multiple Ranney wells, uprating and extension of existing powerlines, gravity diversions through the existing headworks, and the use of wind energy to offset pumping costs. With these measures, diversion would be reduced by 766 cfs so that water delivery to the project would be 608 cfs.

Submitting Comments

Comments on the Draft EIS must be received by July 28, 2016. The Corps and Reclamation will consider and respond to all substantive comments received on the Draft EIS when preparing the Final EIS. Comments may be submitted at the public meetings, mailed to U.S. Army Corps of Engineers, Omaha District, ATTN: CENWO-PM-AA, 1616 Capital Ave., Omaha, NE 68102, or emailed to cenwo-planning@usace.army.mil

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

What is NEPA?

NEPA discloses the environmental effects of proposed actions and alternatives, and informs and involves the public in the decision-making process.

Reclamation and Corps are proposing to improve fish passage at the Intake Diversion Dam to help pass the endangered pallid sturgeon and other native fish, continue a viable and effective operation of the Lower Yellowstone Project, and contribute to ecosystem restoration.

The agencies have prepared a Draft Environmental Impact Statement (Draft EIS) to evaluate what effects the alternatives may have on the environment. The Draft EIS analyzes potential environmental impacts of the project and compares the effects of the alternatives to No Action.

Public Participation

You have valuable information about Intake Diversion Dam and the potential environmental, social, and economic effects that could result from the implementation of the action.

The environmental review process under NEPA provides an opportunity for you to be involved in the agencies' decision-making process. Commenting on the Draft EIS is an opportunity to provide input on what resources may be impacted by the project and how changes may impact you or other groups. Both Agencies will take into consideration all comments provided on NEPA documents during the comment period.

What's Next?

Reclamation and the Corps are gathering public comments at these meetings, via mail and electronic submittal through July 28, 2016. Written Comments can be submitted to:

U.S. Army Corps of Engineers
Omaha District
ATTN: CENWO-PM-AA
1616 Capitol Avenue
Omaha, NE 68102

Emailed comments may be submitted to: *cenwo-planning@usace.army.mil*

For additional information on this proposal or on the NEPA process, please contact *Tiffany Vanosdall: (402) 995-2695 tiffany.k.vanosdall@usace.army.mil*, or *David Trimpe: (406) 247-7717 dtrimpe@usbr.gov*

NEPA Process
Notice of Intent
Public Scoping Meetings and 45-Day Comment Period
Scoping Report
Evaluation and Analysis of Issues and Alternatives
Draft EIS
Public Meetings and 45-Day Comment Period
Final EIS
Record of Decision - *no sooner than 30 days after the Final EIS*

US Army Corps of Engineers ®
Omaha District

http://www.usbr.gov/gp/mtao/loweryellowstone

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION