



US Army Corps  
of Engineers®  
Omaha District

# Intake Diversion Dam Fish Passage



## Lower Yellowstone Project - Intake, Montana

### Background

The diversion dam along the Yellowstone River at Intake, Montana was constructed by the Bureau of Reclamation in 1905 to divert water into a main canal in order to provide a dependable water supply sufficient to irrigate over 50,000 acres of land. For more than 100 years, the 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 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)(1) of the ESA authorizes all federal agencies to use their resources for the conservation and recovery of federally-listed species and the ecosystems upon which they depend, and Section 7(a)(2) 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 protecting the endangered pallid sturgeon and other native fish from becoming entrained in the irrigation canal and improving fish passage at the diversion dam.



Intake Diversion Dam

### 2010 Environmental Assessment (EA)

The Corps and Bureau of Reclamation, joint lead agencies on the proposed project, finalized an environmental assessment (EA) and Finding of No Significant Impact in 2010 which analyzed alternatives to reduce entrainment and improve fish passage. The selected alternative to reduce fish entrainment was construction of a new headworks structure and installation of fish screens, which was completed in the spring of 2012.

### 2015 Supplemental Environmental Assessment

In the 2010 EA, the selected alternative to improve fish passage was construction of a rock ramp. Based on new information on the rock ramp design, pallid sturgeon movement, and constructability and sustainability of the proposed rock ramp, the Corps and the Bureau of Reclamation coordinated extensively with the U.S. Fish and Wildlife Service; Montana Fish, Wildlife and Parks; Montana Department of Natural Resources and Conservation; the Lower Yellowstone Irrigation Project; and other interested parties, to develop new alternatives to improve fish passage. The result of that coordination was the development of a draft supplement to the 2010 EA. The supplement, issued in 2015, described three alternatives for improving fish passage. There were 1) continued present operations, 2) bypass channel, and 3) rock ramp. The Supplemental EA and the Finding of No Significant Impact selected the bypass channel.

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## Environmental Impact Statement (EIS)

In response to concerns about the selected Bypass Channel Alternative, the Corps and Reclamation are proposing to prepare this EIS. The EIS will potentially look at the three alternatives examined in the 2015 Supplemental EA as well as other alternatives that may meet the project purpose and need. The Corps and Reclamation will use the scoping period to fully identify the range of potentially significant issues, actions, alternatives, and impacts to be considered in the EIS. The scoping period will ensure that the public has sufficient opportunity to review and comments on the proposed Federal action and reasonably alternatives for fish passage at the Intake Diversion Dam. While the three alternatives examined in the 2015 Supplemental EA, discussed below, will be carried forward into the EIS, additional alternatives may be added as a result of the scoping process. These new alternatives could include a high flow channel or various pumping options.

### ALTERNATIVES TO BE CONSIDERED IN THE EIS

<b>No Action</b>	Continued operation and maintenance of the existing project, permit for rocking, Endangered Species Act Section 7 Consultation.
<b>Rock Ramp Alternative</b>	This alternative would replace the existing weir with a new concrete weir and a shallow sloped, un-grouted boulder and cobble rock ramp.
<b>Bypass Channel Alternative</b>	This alternative would construct a bypass channel around the existing weir to divert approximately 15% of total river flow.
<b>High Flow Channel Alternative</b>	This alternative would modify an existing side channel around the existing weir to divert river flow, and meet fish passage criteria.
<b>Pumping Alternative</b>	The alternative is a conceptual design that includes either pumping stations (surface water) or Ranney® wells (infiltration galleries) to divert water into the existing irrigation canal.
<b>Non-weir Alternative</b>	Possible features could include; pumping, alternative energy sources and conservation measures.
<b>Others Recommended</b>	Other alternatives identified during scoping.

## Submitting Comments

The public and other interested parties are encouraged to submit comments on the scope of the issues and alternatives to be considered in the EIS. Comments may be submitted at the public scoping meeting to be held on January 21, 2016, 6:00 – 8:00 p.m. at the Dawson County High School, 900 N. Merrill Avenue, Glendive, MT 59330. Comments may also be 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](mailto:cenwo-planning@usace.army.mil) by February 18, 2016