US Army Corps of Engineers ®
Omaha District

PUBLIC NOTICE

Application No: NWO-2008-02556-MTB
Applicant: US Army Corps of Engineers
Waterway: Yellowstone River
Issue Date: March 13, 2015
Expiration Date: April 3, 2015

21 DAY NOTICE

Billings Regulatory Office Post Office Box 2256 Billings, Montana 59103

JOINT PUBLIC NOTICE
FOR PERMIT APPLICATION SUBMITTED TO
U.S. ARMY CORPS OF ENGINEERS
AND
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Under the provisions of Federal regulations 33 C.F.R. 335-337 and instructions from the Office, Chief of Engineers, Washington, D.C., relative to Federal projects involving the discharge of dredged or fill material in waters of the United States, notice is hereby issued to advise interested parties of a proposed Intake Dam modification project on the Yellowstone River near Intake in Dawson County, Montana.

Sections 313 and 404 of the Clean Water Act (33 U.S.C. 1323 and 1344) require each agency of the Federal Government engaged in any activity resulting in, or which may result in the discharge or runoff of pollutants, to comply with Federal, State, or interstate and local requirements respecting the control and abatement of water pollution to the same extent as any person or entity is subject to such requirements. In accordance with 33 C.F.R. 335-337, activities involving the discharge of dredged or fill material to be performed by the Corps of Engineers (Corps) will be subject to public review procedures that are followed in processing applications for Section 404 permits.

Description of Proposed Project: The proposed federal action will modify Intake Diversion Dam to improve passage for endangered pallid sturgeon and other native fish in the lower Yellowstone River. The Intake Diversion Dam is used to divert water from the Yellowstone River into the Lower Yellowstone Project's main irrigation canal. Proposed modifications for entrainment protection and fish passage were described and analyzed in the April 2010 Final Environmental Assessment (2010 EA). In the April 26, 2010 Finding of No Significant Impact (2010 FONSI), the Bureau of Reclamation (Reclamation) and the Corps made a joint finding that an Environmental Impact Statement (EIS) was not required for the proposed project and decided to implement the proposed action to reduce entrainment and improve fish passage. The selected alternative to improve fish passage was the rock ramp alternative. In addition, installation of fish screens and new main canal headworks was chosen as the preferred alternative to reduce entrainment.

The modifications to reduce entrainment, construction of the new main canal headworks and installation of fish screens, began in October 2010 and have been completed. Irrigation deliveries using the new headworks began in April 2012. The second part of the proposed dam modifications to provide fish passage by installing a rock ramp has been reevaluated by the

U.S. Department of the Interior, Reclamation, and the Corps; in coordination with the U.S. Fish and Wildlife Service, Montana Fish, Wildlife and Parks, Montana Department of Natural Resource Conservation, Montana Department of Environmental Quality, and the Lower Yellowstone Irrigation District. The reevaluation was necessary because of significant new information on the rock ramp design, pallid sturgeon movement, as well as the constructability and sustainability of the proposed rock ramp since the 2010 EA and FONSI were released.

The preferred alternative is intended to improve passage for pallid sturgeon around Intake Diversion Dam by means of a bypass channel. One of the primary features of this alternative will be the construction of a bypass channel from the upper end of the existing side channel, to just downstream of the existing diversion dam and associated rubble field. By locating the fish entrance to the bypass channel at the downstream end of the dam, fish are thought to be more likely to find the bypass channel and utilize it in their movement upstream. A concrete weir will be constructed in order to provide adequate water surface elevations for water diversion into the new bypass channel and delivery of irrigation water. Construction of a new concrete weir would eliminate the need to routinely place rock along the crest of the existing weir in order to maintain head requirements for both the bypass channel and the new headworks. While head requirements could theoretically be met through routine rock placement, a permanent structure provides more reliable flows into the bypass channel and reduces the amount of fill placed into the Yellowstone River. It also eliminates concern as to whether continued displacement of rock from the crest of the dam by ice flows could adversely affect the downstream entrance to the bypass channel. Features of this alternative will be located primarily on Joe's Island. This land was acquired by Reclamation during construction of the original Intake project and is still administered by Reclamation. All construction, staging and disposal will occur on Reclamation lands.

A primary feature of this alternative will be the construction of a bypass channel to divert approximately 13-15% of total river flows (see Figure 2). While the channel will typically divert 13% of the total flow from the main channel during typical spring and summer discharges, diversion percentages will vary from 10% at extreme low flows on the Yellowstone River to 17% at extreme high flows. This will require the excavation of approximately 1.1 million cubic yards of earthen material from Joe's Island. The proposed bypass channel alignment extends approximately 11,150 feet in length at a slope of approximately 0.0007 feet/feet (natural Yellowstone River slope is approximately 0.0004 feet/feet to 0.0007 feet/feet). The channel cross section will have a bottom width of 40 feet, a top width of 150-250 feet, and side slopes varying from 1V:12H to 1V:3H.

Following completion of the rock structures, the remainder of the channel would be excavated and disposed of in one of three locations. The majority of the excavated material would likely be disposed of in the upstream portion of the existing high flow channel. Some material would likely be disposed of in the spoil area on the south side of the new channel. Additionally, pending floodplain modeling, some material could be side cast on the west side of the bypass channel to reduce the risk of sediment deposition in the bypass during large flood flows.

This work will be protected by a cofferdam at the upstream entrance and downstream exit of the proposed bypass channel, which will be constructed early in the construction sequence. The cofferdams will consist of sheet piles driven below grade into the large alluvium material to prevent under seepage. Grade control structures are included at the downstream and upstream ends of the bypass channel as well as at two intermediate locations to prevent excessive degradation that will impact passage success. The proposed grade control structures would be composed of riprap. Two vertical control structures (riprap sills) are proposed for maintaining

channel slope and allowing for early identification of channel movement (Figure 3). Similar to the upstream control structure, these will be over-excavated and backfilled with natural river rock to give the appearance of a seamless channel invert while providing stability during extreme events. A riprap sill is also proposed for the downstream end of the channel to maintain channel elevations. Additionally, bank riprap is proposed at four outside bends identified as having higher potential for failure to minimize the risk of losing the bypass channel planform. It is possible that additional protection could be required in the future if assumptions about channel stability are proven incorrect and excessive channel migration or degradation begins to impact passage effectiveness. Approximately 65,000 tons of riprap will be required for the bypass channel.

Current modeling efforts indicate a degradational trend within the bypass channel. Modeling also shows that an increase in size of bypass bed material minimizes the expected degradation; therefore construction of an armor layer is proposed. The armor layer will consist of large gravel to cobbles, similar in size to the naturally occurring course channel material found on Yellowstone River point and mid-channel bars and similar to what will be expected to occur naturally over time. Approximately 28,000 cubic yards of armor layer material (11,150 linear feet by 90-feet wide by 9-inch layer thickness) will be screened from the alluvial material excavated from the bypass channel and placed in the channel bottom to achieve final design grade.

Diversion of flow from the existing high flow channel into the constructed bypass channel will be facilitated by a channel plug constructed at the upstream end of the bypass. This would eliminate any flow from entering the existing high flow channel under normal conditions so that flows are maximized in the bypass channel offering the most opportunity for passage. The rock riprap needed during construction will be purchased from commercial sources.

A new, raised concrete weir is proposed just upstream from the existing rock weir at elevation 1990.5 feet (NAVD 88) in order to provide sufficient water surface elevations to divert the appropriate flows through the bypass channel and maintain irrigation diversion. The new river-wide concrete weir will be constructed approximately 40 feet upstream of the existing dam (Figure 4).

The weir structure will consist of a cantilevered structural wall created by a deep foundation of either driven piles or drilled shafts with a concrete cap. Because of the river water level, if drilled shafts were used, the shafts will be cased (pipe piles cleaned out and filled with reinforced concrete). The piles or shafts will be spaced such that there will be gaps between them below the cap, but the backfill will be completely around them, and for purposes of retaining wall design, a bridge between them. The top of the structure would allow for a smooth crest surface for ice to pass over. Fill will be placed between the downstream side of the crest and the existing weir. Fill will also be placed upstream of the new weir structure and sloped to include rock protection. The weir crest may include at least one low-flow channel for fish passage. This will offer an array of depth-velocity habitat zones for fish migration under a wide range of flows, which are typical on the lower Yellowstone River. The channel(s) in the weir crest will be designed to provide fish passage during late summer and early fall low flows. It is likely that some maintenance of the rock field between the old and new weirs will be necessary over the long term. However, the riprap placed between weirs will not be subject to the same level of displacement experienced with the current weir since it will not be subject to direct impact from ice flows.

A copy of this public notice is also available at
http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Montana.aspx

Location: The proposed project is located between the communities of Glendive and Sidney in Section 36, Township 18 North, Range 56 East in Dawson County, Montana.

Purpose: The purpose of the proposed modifications to Intake Diversion Dam is to improve fish passage for the endangered pallid sturgeon and other native fishes.

Mitigation: Impacts to wetland areas and existing streams were avoided and minimized by locating access roads and other features of the project outside of wetland areas and by pursuing the action alternative with the least impact on the Yellowstone River. No mitigation is proposed at this time. The construction of the fish bypass alternative will benefit aquatic species by greatly improving passage conditions at the site.

401 Water Quality Certification: The Montana Department of Environmental Quality, 1520 East 6th Avenue, PO Box 200901, Helena, Montana 59620-0901 will review the proposed project with the intent to certify in accordance with the provisions of Section 401 of the Clean Water Act. The certification, if issued, will express the State's opinion that the operations undertaken by the applicant will not result in a violation of applicable water quality standards. The Montana Department of Environmental Quality hereby incorporates this public notice as its own public notice and procedures by reference thereto.

Cultural Resources: The Corps of Engineers, Omaha District will comply with the National Historic Preservation Act of 1966, as amended. Nineteen cultural resources have been recorded within or near the area of potential effects of the proposed Intake Project, but only seven have been determined to be historic properties protected under the National Historic Preservation Act (NHPA). The proposed project could be considered to have potential adverse effects to historic properties under the NHPA. The Montana State Historic Preservation Officer, tribes, and other interested parties, as appropriate, will be consulted to complete a determination of effects and to identify appropriate actions to minimize effects. These actions to minimize effects will be carried out prior to initiating construction of the Intake Project to offset any adverse impacts.

Threatened / Endangered Species: In October of 2009, the Service sent a letter to the Corps to formally revise portions of the Reasonable and Prudent Alternative (RPA) in the Service's 2003 amended Missouri River BiOp to the Corps. The letter substituted a new RPA element at Intake Dam and irrigation headworks on the Yellowstone River, Montana, for one which was originally identified to be taken at Fort Peck Dam. Thus, as per the Service's Final ESA section 7 Consultation Handbook (1998), "If adopted by the action agency, the reasonable and prudent alternatives do not undergo subsequent consultation to meet the requirements of section 7(a)(2). The action agency's acceptance in writing of the Service's reasonable and prudent alternative concludes the consultation process." Since the Corps accepted the RPA, both the Service and Corps considered section 7 consultation to be concluded.

Reclamation's section 7 consultation on construction of the Intake Project and O&M of the LYIP 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 complete and consultation 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.

The Corps is exempt from Incidental take of pallid sturgeon during construction of the proposed project because the Incidental Take Statement in the original 2003 amended Missouri River Biological Opinion includes the implementation of RPAs. Reclamation will need to get an exemption during the ongoing formal consultation process. Based on the analysis and environmental commitments in the 2010 ESA consultation, EA, and FONSI, as well as the analysis in the current EA, it is not anticipated that incidental take in conjunction with fish passage construction will occur.

Evaluation Factors: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of work on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act (40 C.F.R.; Part 230).

Comments: The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. All public notice comments will be considered public information and will be subject to review by the applicant.

Any person may request, in writing and within the comment period specified in this notice, that a public hearing be held for the purpose of gathering additional information. Requests for public hearings must be identified as such and shall state specifically the reasons for holding a public hearing and what additional information will be obtained. The request must be submitted to the U.S. Army Corps of Engineers, 10 West 15th Street, Suite 2200, Helena, Montana 59626. If it is decided that additional information is required and that a public hearing should be held, interested parties will be notified of the date, time and location.

Any interested party (particularly officials of any town, city, county, state, or Federal agency; Indian tribe; or local association whose interests may be affected by the work) is invited to submit to this office written facts, arguments, or objections on or before the expiration date listed on the front of this notice. Any agency or individual having an objection to the work should specifically identify it as an objection with clear and specific reasons. Comments, both favorable and unfavorable, will be accepted, made a part of the record and will receive full consideration in subsequent actions on this application. All replies to the public notice should be addressed to

the **U.S. Army Corps of Engineers, Post Office Box 2256, Billings, Montana 59103**. **Please reference the Application Number found on the first page of this notice in any correspondence.** Cathy Juhas, telephone number (406) 657-5910, may be contacted for additional information. You may also fax your comments to (406) 657-5911, or e-mail to: **Catherine.d.juhas@usace.army.mil**

Comments postmarked or received by fax or e-mail after the expiration date of this public notice will not be considered. Comments left on our voicemail system will not be considered.

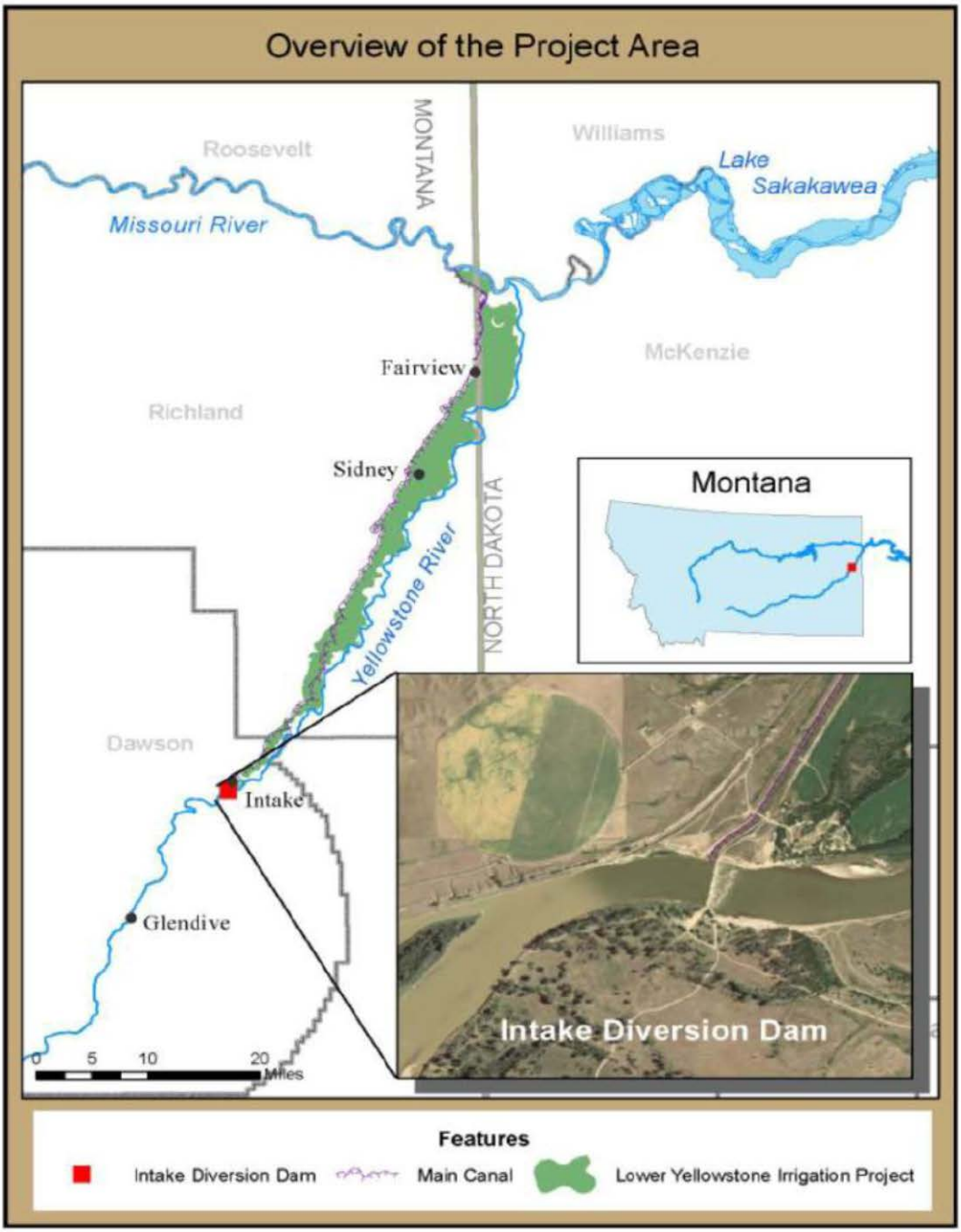

Figure 1: Overview of project area

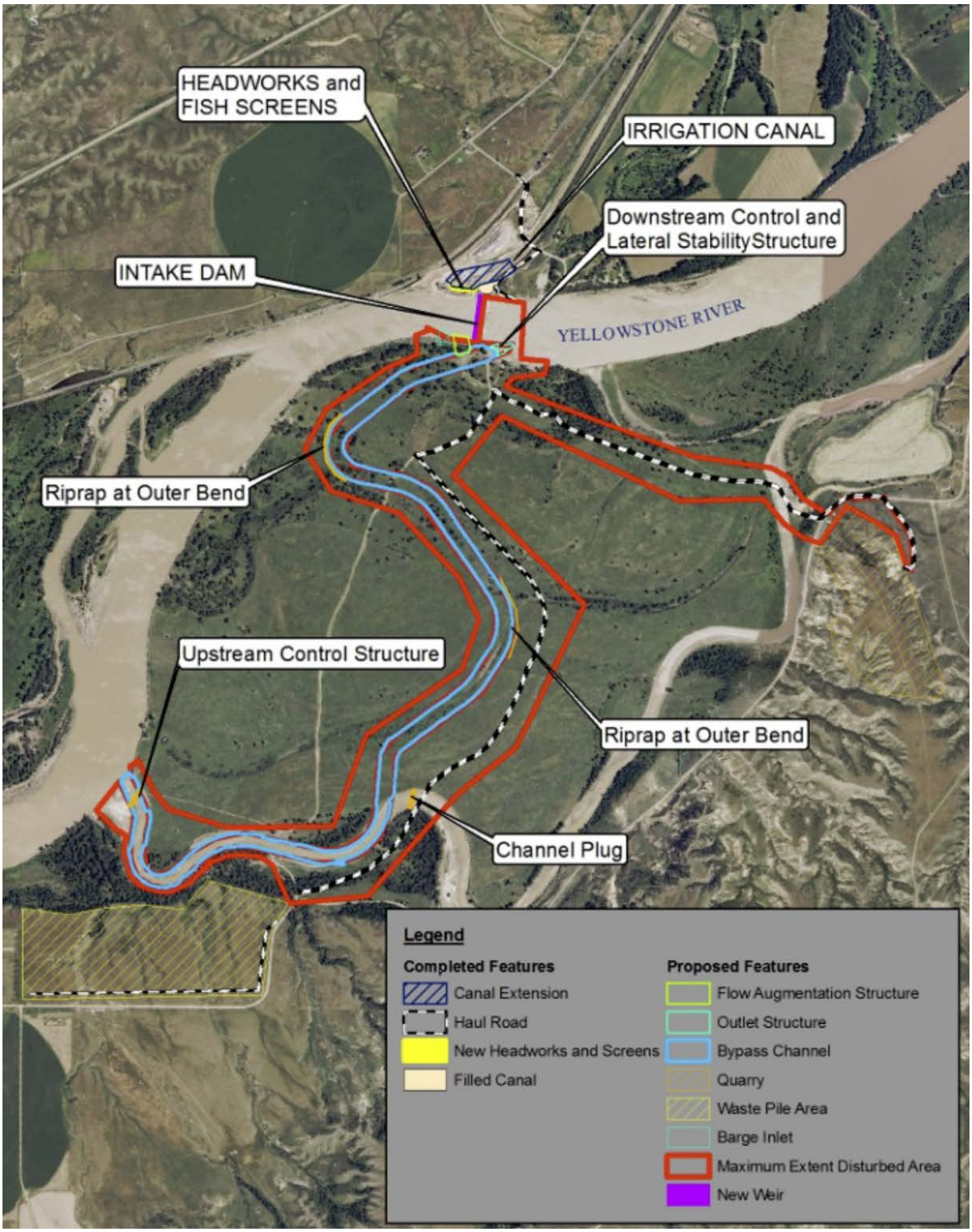

Figure 2: Bypass Channel

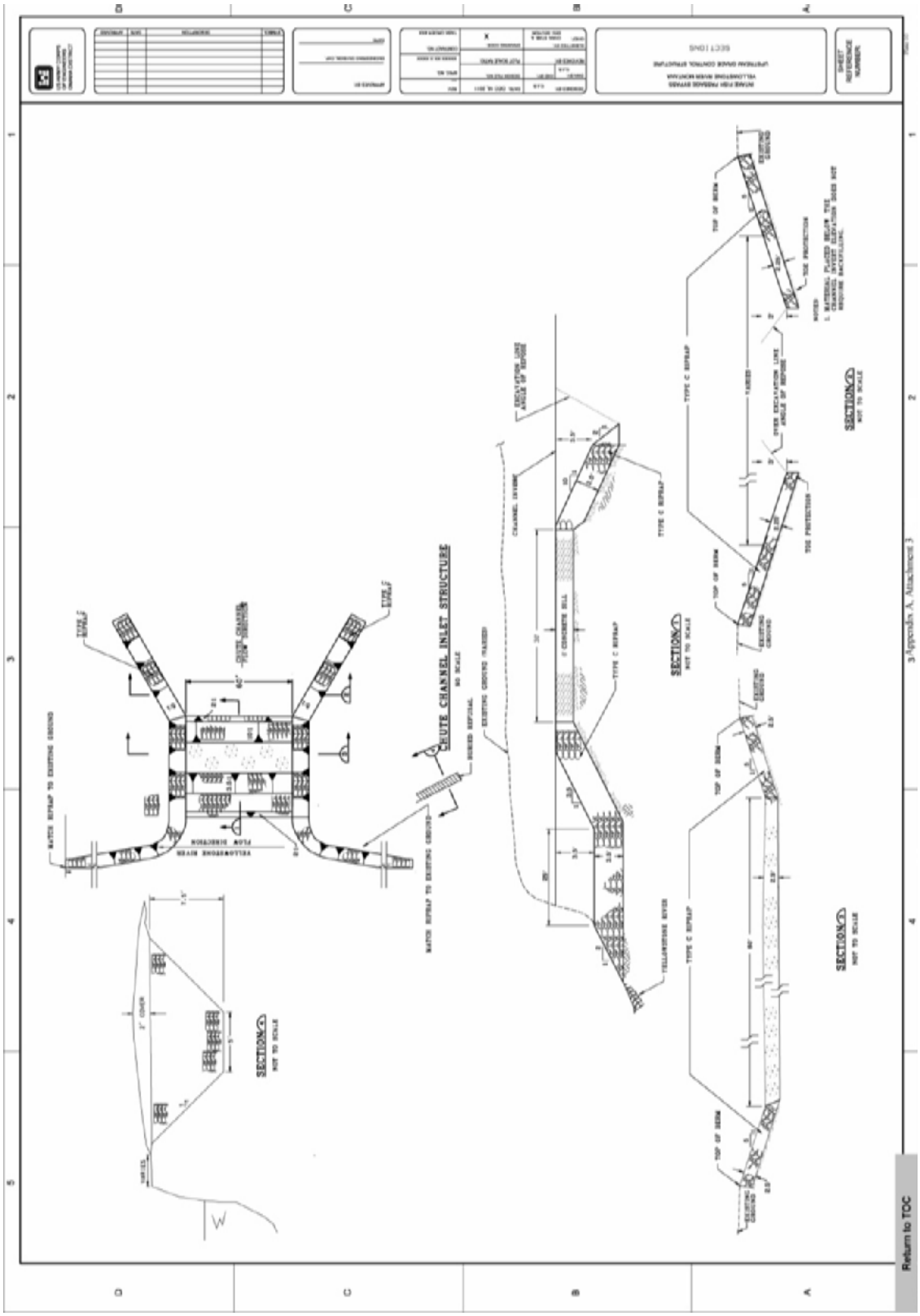

Figure 3: Vertical Control Structures

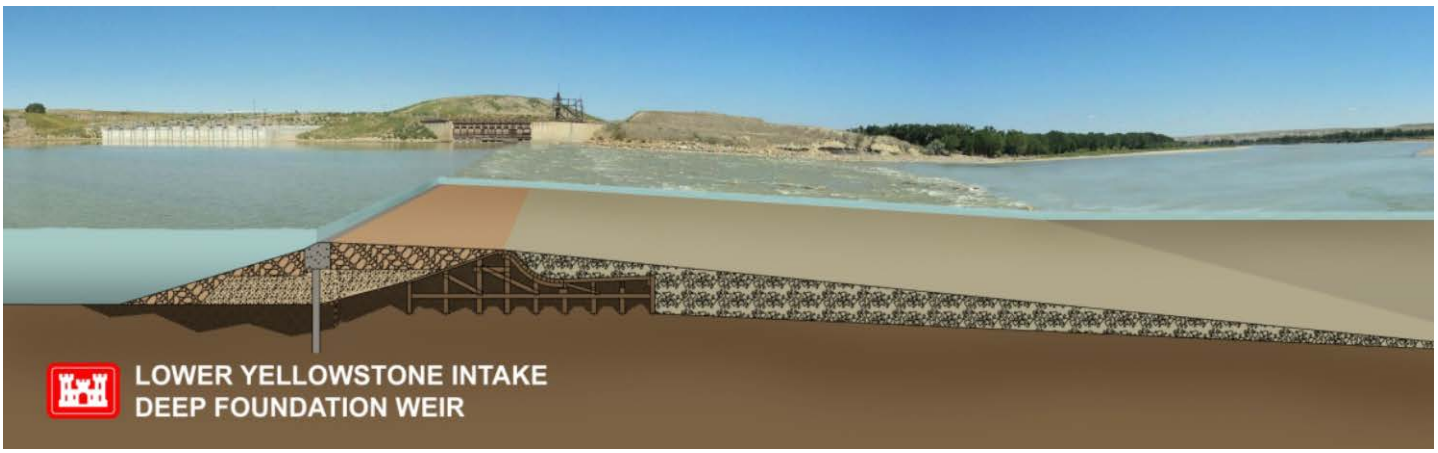

Figure 4: Weir Rendering