



ENVIRONMENTAL ASSESSMENT DECISION NOTICE

JETTY REPLACEMENT AND MAIN CANAL IMPROVEMENTS BROADWATER COUNTY, MT

**Montana Department of Natural Resources and Conservation
Water Resources Division
Helena, MT**

MAY 2023

Background and Description of Proposed Project

The State Water Projects Bureau (SWPB) of the Montana Department of Natural Resources (DNRC) Water Resources Division released an Environmental Assessment (EA) for a jetty replacement and main canal improvements adjacent to the Broadwater Dam Project and Broadwater-Missouri Water Project within Broadwater County. The Broadwater Dam and Broadwater-Missouri Water Projects are owned by Montana DNRC and are administered by the SWPB.

The proposed project is located on the Missouri River, near the town of Toston, Montana. The site is approximately 20 river miles downstream of the headwaters of the Missouri and about 20 river miles upstream from Canyon Ferry Reservoir, more specifically located at the southern terminus of Toston Dam Road in Section 7 of Township 4N, Range 3E.

Several deficiencies were identified with the rock jetty including the existing condition and configuration. Installed in 2000, the rock jetty is failing and has increased debris accumulation at the canal headworks over time, allowed uncontrolled sediment loading through the canal intake gates, and is contributing to riprap rock material shedding towards the Broadwater Dam turbine intake.

Specific goals as documented through a scoping and alternative analysis included the following:

- Reconstruct or remove and stabilize the existing jetty to reduce/stop shedding of riprap into the Broadwater Dam turbine intake;
- Protect the irrigation canal headworks from floating debris;
- Reduce sediment (primarily sand sized) deposition at the irrigation canal headworks; and
- Assess replacement options for existing canal gates.

The SWPB also identified the need for repair and improvement of the irrigation infrastructure in a portion of the main irrigation canal. Improvements to the main irrigation canal infrastructure will facilitate increased safety of the canal, increased water measurement accuracy, decreased maintenance costs, and development of future water marketing.

Montana Environmental Policy Act

Montana Department of Natural Resources and Conservation is required by the Montana Environmental Policy Act (MEPA) to assess potential impacts of its proposed actions to the human and physical environments, evaluate those impacts through an interdisciplinary approach, including public input, and make a decision whether or not to proceed with the project.

Purpose and Need

The proposed action will provide a long-term, cost-effective rehabilitation solution to improve dam operations by removing the existing rock jetty and provide an alternate method to reduce the debris and sediment loading on the Broadwater-Missouri canal intake gates. The proposed action also includes replacement of the canal intake gates and additional improvements of proposed irrigation infrastructure. These improvements will facilitate increased safety of the canal, increase water measurement accuracy, decrease maintenance costs, and allow the development of future water marketing.

Alternatives Considered

The EA evaluated potential impacts of the following alternatives:

Alternative A (Proposed Action): This alternative is the Preferred Alternative (i.e., Proposed Action) as recommended by the August 2021 Preliminary Engineering Report. This alternative includes removal of the existing rock jetty and protection of the inlet channel upstream of the dam through the addition of box culverts. The existing canal headworks will remain in place. The area landward of the new culverts will be backfilled and the water side will be stabilized and protected with recycled (jetty) riprap.

The Preferred Alternative also includes replacement of the four irrigation gates comprising the canal headworks structure, and improvements to the current Broadwater-Missouri Canal infrastructure that include a wasteway, turnout, water measurement, and headgate within the irrigation canal.

Alternative B (No Action): The No-action Alternative involves continued operation of the canal headworks and Broadwater Dam Project in its current condition with no additional improvements or modifications to the system. Under the No-action Alternative, no modifications will occur. No measures will be taken to protect shedding riprap from entering the turbine intake, limit debris entrainment from entering the irrigation canal headworks, or reduce the sediment deposition through the irrigation canal headworks. The existing canal gates will not be replaced and continue to leak.

Other Alternatives Considered: Numerous conceptual design alternatives were evaluated during the scoping and preliminary engineering phase and documented through a Preliminary Engineering Report. These alternatives were dismissed from further consideration for various reasons. Other alternatives considered are as follows:

- Floating Debris Barrier
- Floating Breakwater
- Riprap Jetty (Jetty Reconstruction)
- Flexible Intermediate Bulk Container (FIBC) Jetty (Jetty Reconstruction)
- Grout Jetty (Jetty Reconstruction)
- Sheet Pile Jetty Structure (Jetty Reconstruction)
- Trash Rake System
- Relocate Irrigation Headworks Upstream
- Relocate Irrigation Headworks Downstream

Public Review Process

In compliance with DNRC's Environmental Document Reporting Policy, an Environmental Assessment (EA) was completed on the proposed action by DNRC and released for a 30-day public comment period commencing on April 11, 2023. The comment period closed on May 12, 2023. The EA was provided to the Broadwater-Missouri Water Users Association and made available on DNRC's website.

No public comments were received.

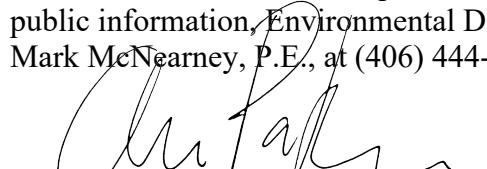
DNRC Recommended Alternative and Final Decision

An Environmental Assessment was prepared by DNRC to address replacement of an existing rock jetty in the Missouri River at the Broadwater Dam Project and main canal improvements to the Broadwater-Missouri Water Project. Alternatives were considered and a proposed action was selected by DNRC and released for public comment. No public comments were received by DNRC.

Based on the alternatives considered and opportunity for public comment, DNRC considers the Draft Environmental Assessment to be the Final Environmental Assessment. I have determined that the proposed action would not have significant adverse effects on the human and physical environments associated with this project. Therefore, I conclude that the EA is the appropriate level of analysis, and the preparation of an Environmental Impact Statement is unnecessary.

It is my decision to approve the Proposed Action Alternative to implement the jetty replacement at the Broadwater Dam Project and main canal improvements for the Broadwater-Missouri Water Project.

The Decision Notice will be posted on the DNRC website at <https://dnrc.mt.gov/> within the public information, Environmental Documents section. Please direct requests and questions to Mark McNearney, P.E., at (406) 444-6693, or mmcnearney@mt.gov.



Anna Pakenham Stevenson
DNRC Water Resources Division Administrator

5/22/2023

Date