

PROJECT CHARTER

Charter No 2016 - 27

1. General Information:

Project Title: Bonneville Bradford Island B-Branch Fishway Bank Erosion
Appropriation: Operation & Maintenance
OPM: Jerry Carroll
Authority:

2. Project Description:

The Bonneville B-Branch Adult Fishway is one of the four fish ladder systems at the Bonneville Project that provide bypass routes for upstream migrating adult salmon, steelhead, lamprey and other fish species. It is also half of the Bradford Island fishway system, which includes the A-Branch. The B-Branch Fishway is located on the north side of Bradford Island and on the south side of the Spillway.

In 2011, unusually high summer flows with extended duration resulted in erosion under the B-Branch Fishway at the south shore of the spillway. This erosion resulted in an emergency repair contract which required the B-Branch to be dewatered to allow for repairs.

In June 2016, erosion was again discovered at the B-Branch Fishway at the south shore of the spillway. This project intends to repair this erosion.

On 17, June an initial visual survey identified details at and above the water surface for two erosion holes that were previously identified as tail water elevations receded. The visual survey identified significant erosion, but no visible undercutting of the B-Branch fishway.

On 8 July a multi-beam sonar survey was conducted to gain a better understanding of the bathymetry of the surrounding area, evaluate if the B-Branch fishway was undercutting and to establish a baseline for future monitoring. Initial data and visual identification revealed moderate growth in both holes, but unlikely undercutting of the B-Branch fishway.

A previously scheduled ROV inspection has been established for 1-3 August. It is anticipated that an additional sonar survey will coincide with this scheduled outage to provide supplementary details on progression of erosion and evaluation of B-Branch fishway integrity.

3. Project Justification:

The adult fish passage season begins 1 March through and runs through 30 November. Annual maintenance of adult fish facilities is scheduled from 1 December through the end of February. The Fish Passage Plan requires the Fishways to operate during the adult fish passage season. In addition Bonneville maintains one ladder in service at all times to allow for upstream fish migrations during non-peak migration periods.

The juvenile fish migration season occurs 1 March through 30 November. The Fish Passage Plan requires spillway operations for juvenile fish passage from 10 April through 31 August.

Continued erosion at the B-Branch Fishway bank could ultimately lead to structural failure of the B-Branch Fishway, resulting in the closure of the Fishway and changes to spillway operations impacting both adult upstream migration and juvenile migrants moving downstream.

4. Project Objectives:

1. Repair the B-Branch Fishway shore erosion.
2. Conduct a root cause analysis with intent to mitigate any future erosion of the B-Branch bank.

5. Project Scope:

Identify root cause of erosion and execute a repair contract. General tasks include, but are not limited to:

1. Establish a routine monitoring program (visual and sonar survey) to evaluate the progression of ongoing erosion.
2. Perform Root Cause Analysis to determine the cause of erosion.
3. Perform CFD modeling to better understand cause of erosion and effects of repair options.
4. Perform physical modeling to better understand cause of erosion and effects of repair options.
5. Complete plans and specifications package to repair erosion.
6. Complete repair contract.
7. Coordinate these efforts with agency stakeholders and with other ongoing work at Bonneville Project.

6. Customer and Project Sponsor:

Customer is the Bonneville Lock and Dam.

7. Stakeholders:

Stakeholders include USACE, regional natural resource agencies, tribal agencies, public and private interests relying on migrating fish species, and the Bonneville Power Administration.

8. Constraints and Assumptions:

1. Project is constrained by Fish Passage Plan requirements, in-water work period requirements, operational requirements, and other contract work occurring at Bonneville Project.
2. The project requires Joint funding, 50% appropriated funds and 50% BPA funding.

9. Initial Project Risk Assessment:

PDT Size: Medium (Requires several technical disciplines and support elements)

Technical Difficulty: Medium (Work for which NWP has in-house technical capability)

Project Duration: Short (1 year or less)

Number of External Stakeholders: Many (Potential opposition or controversy)

Other: Medium (Potential for other risks is moderate)

Overall Risk Assessment: High (Difficult, complex and potentially controversial project)

10. Project Management Plan Requirements:

The Project Management Plan (PMP) shall be prepared in accordance with USACE and Portland District Project Management Business Processes and shall meet NWD Quality Management System standards. The PMP shall also be routed for PDT and Resource Provider review and endorsement prior to approval.

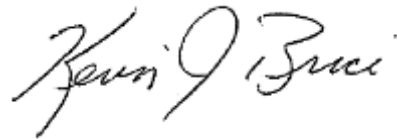
11. Project Manager Assignment:

Natalie Richards has been assigned as the Project Manager.

12. BPMG Review:

This project charter has been reviewed and recommended for approval by the BPMG.

13. Approval:

A handwritten signature in black ink that reads "Kevin Brice". The signature is written in a cursive style with a large, stylized 'K' and 'B'.

Kevin Brice
Deputy District Engineer
Planning, Programs and Project
Management Division