# Fish Passage Plan (FPP) Change Form

**Change Form # & Title**: 23BON002 – B2CC Trigger

**Date Submitted**: 23-JAN-2023

**Project**: Bonneville Dam

**Requester Name, Agency**: Trevor Conder NOAA, Tom Lorz CRITFC

**Final Action: APPROVED 3-FEB-2023**

**FPP Section**:

BON section 2.3.2.5.v. Powerhouse Two Corner Collector (B2CC).

**Justification for Change**:

The current B2CC trigger requires that 2 kelts per day are counted at the JMF adult/debris separator on 2 consecutive days and a total cumulative count of at least 20 kelts after March 1. These criteria require intensive monitoring and are less protective of the early kelt steelhead migrating prior to the trigger being met. Further, the B2CC cumulative trigger is not sensitive to low steelhead abundance years and often leads to later opening dates of the B2CC during low abundance.

Active tag and hydroacoustic evaluations provide evidence that downstream migrating adult steelhead will hold and pass rapidly once an effective surface passage route is provided (Wertheimer 2007, Ham et al. 2012, 2019). Based on PIT tag and monitoring data, steelhead kelts are present and actively passing downstream of Bonneville Dam in early March (Madson P. PTAGIS data, Jan 2023). On average, the B2CC opens for kelt passage on March 19th based on the past trigger dates (2010-2022). By shifting the 24-hour opening date from March 19th to a week later to March 26th, a total of 168 hours of operation time (7 days \* 24 hours) can be used in shorter blocks throughout the entire month of March to pass kelt steelhead without utilizing additional water hours. Based on the current information, daily B2CC operations would likely result in increased protection for early arriving kelts, and this operation would also eliminate the need for separator monitoring and a kelt trigger in future years. Additionally, the B2CC PIT detection system can be used to monitor and evaluate the effectiveness of the operation.

**Proposed Change**:

See following pages for edits to existing FPP in track changes.

**2.3.2. Juvenile Facilities - Juvenile Fish Passage Season (March 1 – November 30).**

**2.3.2.5. Powerhouse Two (PH2).**

**2.3.2.5.v. Powerhouse Two Corner Collector (B2CC).**

March 1–8: Open the B2CC daily from 0600–1000 hours. Open within 30 minutes of the start time and shift the closure time as necessary to maintain the 4-hour duration.

March 9–25: Open the B2CC daily from 0600–1000 and from 1600–2000. Open within 30 minutes of the start time and shift the closure time as necessary to maintain the 4-hour duration.

March 26 – August 31: Beginning at 0600 on March 26, operate the B2CC continuously (24 hours/day) through August 31. Close the B2CC within one hour of the end of summer spill on August 31.

September 1 – April 9: During spill that occurs outside of juvenile fish spill season, open the B2CC if available to provide a surface passage route.

**Comments**:

FPOM FPP Meeting 3-FEB-2023:

Conder - Average open date based on previous criteria was March 19. Required intensive monitoring and also didn’t hit trigger in low abundance years when we would want to be more protective. So went for a flow neutral solution. Shifted 24-hr opening a week later to March 26, then open before that, starting March 1st, for targeted 4-hr blocks. This is better for fish and flow neutral. Will continue to evaluate using PIT detections to see if there’s a response or if the open date should be shifted.

Hesse – supports this change form. Wanted to highlight it’s not the ultimate change needed for surface passage. Prefer earlier start and longer duration. But this is a step in the right direction.

Bettin – this is an improvement.

Van Dyke – no objection but recognizes this is a short-term operation.

**Record of Final Action**: Approved at the FPOM FPP meeting on February 3, 2023.