# Fish Passage Plan (FPP) Change Form

**Change Form # & Title**: 22LWG002 – Delete 2021 Early JBS Operation

**Date Submitted**: 10-November-2021

**Project**: Lower Granite

**Requester Name, Agency**: Lisa Wright, Corps RCC

**Final Action:** **APPROVED 27-January-2022**

**FPP Section**: LWG multiple sections.

**Justification for Change**:

Remove language related to 2021 early bypass operation. In 2022, the Lower Granite bypass will begin operations on March 24, per the FPP.

**Proposed Change**:

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

**Comments**:

1/27/22 FPOM FPP Meeting:

Van Dyke – was language added to projects that are doing early start this year?

Wright – yes, MCN dates have been changed from 2021 to 2022 since they will be doing early start again this year. No other projects are scheduled for early start in 2022.

Van Dyke – is there any opportunity to change that?

Peery – no, there is no opportunity for early start this year due to extended navigation lock outage maintenance.

**Record of Final Action**: Approved at the FPOM FPP meeting 1/27/22.

2.3. Operating Criteria – Juvenile Fish Facilities.

**2.3.1. Juvenile Fish Facilities - Winter Maintenance Period (December 16–March 24).**

**2.3.1.2. ESBS, Flow Vanes, and VBS.**

Within a week after removing ESBSs for winter maintenance, or as soon as practical, inspect for juvenile salmonid mortalities and all other incidental fish mortalities. Count all mortalities, or otherwise estimate, for each ESBS and report to CENWW-OD-T.

Complete maintenance on all screens.

Inspect ESBSs prior to installation and operate debris cleaner (dogged off on deck) to ensure proper operation. Log results of trial run.

Inspect VBSs with underwater video camera at least once per year; repair as needed.

Inspect flow vanes to make sure they are in good condition and all surfaces smooth. Repair as needed.

Install ESBSs in at least 4 turbine units (all 6 if possible) by March 24. Install remaining ESBSs prior to April 1.

**2.3.2. Juvenile Facilities – Juvenile Fish Passage Season (March 25–December 15).**

Operate according to criteria below March 25–October 31 for juvenile bypass, collection, and transport and November 1–December 15 for adult fallbacks. Also operate according to criteria in the *Corps of Engineers Juvenile Fish Transportation Plan* (**Appendix B**). The transport program may be revised in accordance with the ESA Section 10 permit and NOAA Fisheries Biological Opinion.

**2.3.2.2. ESBSs and VBSs.**

Install ESBSs and flow vanes in all operating turbine units by March 24.

Operate ESBSs with flow vanes attached to screen.

Operate ESBSs with debris cleaners in automatic mode. Set cleaning frequency as required to maintain clean screens and good fish condition. Change cleaning frequency as needed.

Inspect each ESBS by underwater video once per month in April, May, and June. Conduct similar inspections in August and October, focusing on at least three turbine units at the judgment of Project personnel. Spot check VBSs at the same time.

Measure VBS head differentials at least once per week (more frequently if required) April 1–June 30 and biweekly for the remainder of the operating season. When a head differential of 1.5’ is reached, operate the respective turbine unit at a reduced loading (≤ 110 MW) to minimize loading on the VBS and potential fish impingement until the VBS can be cleaned. Clean VBSs as soon as possible after a 1.5’ head differential is reached.

**2.3.2.3. Collection Channel.**

Backflush orifices in the bulkhead slots at least daily and more frequently if required. During periods of high fish and debris passage, April 1 through August 15, inspect orifices and back-flush more frequently as determined by the Project biologist to keep orifices clean. If debris is causing continual orifice plugging problems in a particular turbine unit gatewell, restrict the respective turbine unit generation to the lower end of the 1% efficiency range to minimize orifice plugging problems.

**3.2. Maintenance – Juvenile Fish Facilities**

**3.2.1. Scheduled Maintenance.**

**3.2.1.2.** Long-term maintenance or modifications of facilities that require facilities out of service for extended periods are conducted during the winter maintenance period, December 16–March 24.