# Fish Passage Plan (FPP) Change Request Form

**Change Form # & Title**: 21LGS004 – ASW Crest During Spring 30%

**Date Submitted**: 4 January 2021

**Project**: Little Goose

**Requester Name, Agency**: FPOM (in-season adaptive management coordinated in 2020)

**Final Action: WITHDRAWN – 11 February 2021**

**FPP Section**:

Little Goose section 2.3.2.7 ASW Operating Criteria.

**Justification for Change**:

The current FPP criteria calls for operating the ASW at Low crest during high flows > 85 kcfs (i.e., spring freshet) to pass more water and smooth out tailrace hydraulics.

In 2020, the operation during high spring flows was modified to switch the ASW to High crest during hours of 30% spill, then switch back to Low crest during hours of gas cap spill. The intent was to improve tailrace hydraulics for adult fish passage. This in-season modification was implemented at the recommendation of regional salmon managers at the TMT meeting on June 3, 2020.

**Proposed Change**:

If FPOM recommends incorporating this modified operation into the 2021 FPP, the language would be edited as shown below in track changes. Otherwise, modifications will need to be coordinated in-season.

**2.3.2.7. Adjustable Spillway Weir (ASW).** Little Goose has one adjustable spillway weir (ASW) that provides a surface passage route via spillbay 1. The ASW is operated from the control room and can be adjusted between Low crest and High crest to pass more or less water, respectively, according to the flow criteria below:

**High Crest:** The ASW High crest is at elevation 622 feet msl and spills approximately 7 kcfs when the forebay elevation is in the MOP range. *Unless flow conditions defined below are met, spill for fish passage will occur with the ASW at High crest* according to patterns for “Spring Spill” in **Table LGS-7** or “ASW-Hi 30% Spill” in **Table LGS-8**.

**Low Crest:** The ASW Low crest is at elevation 618 feet msl and spills approximately 11 kcfs when the forebay elevation is in the MOP range. Low crest spill patterns are defined for “Spring Spill” in **Table LGS-7**. Change the ASW to Low crest to pass more water during high flows (i.e., spring freshet) when the previous day’s average total project outflow is above 85 kcfs and the NWRFC inflow forecast[[1]](#footnote-1) stays above 85 kcfs for at least the next 3 days. Keep the ASW at Low Crest except when spilling 30% (i.e., during hours of 30% spill, switch the ASW to High crest). When the previous day’s average outflow drops below 85 kcfs and is forecasted to stay below 85 kcfs for at least the next 3 days, change the ASW back to high crest during all hours.

**No ASW (Bay 1 Closed):** On or after August 1, when day average project outflow drops below 35 kcfs and is forecasted to stay below 35 kcfs for at least 3 days, close the ASW and spill according to patterns for “No ASW” in **Table LGS-10**. *To avoid impacts to subyearling migration, the ASW will not be closed before August 1, even if low flow criteria are achieved, unless an adult passage delay is observed or if necessary due to unit operational constraints at low flow. Closing the ASW prior to August 1 will be coordinated through FPOM by CENWW-OD-T.* Re-open the ASW in high crest if day average project outflow increases above 35 kcfs and is forecasted to stay above 35 kcfs for 3 or more days. Continue to open and close the ASW according to these criteria for the remainder of the summer spill season.

**Comments**:

1/28/21 FPOM FPP Meeting:

Conder has concerns with making this change permanent in the FPP. There is a risk to adjusting the ASW twice a day when it wasn’t really designed to do that. It may be a better approach to have a biological trigger (adult fish counts) or respond in-season if there is an issue. He wants more time to think on this.

PENDING further review – will be discussed at FPOM on Feb. 11.

11-FEB-2021 FPOM:

Conder said the operation last year met the intent to improve tailrace hydraulics for adult passage but he has concerns with having it hard wired into the FPP. If there aren’t adults present, this operation wouldn’t have a benefit. Additionally, raising the RSW to high crest means less water and fewer fish passing through the RSW so there could be a negative impact to juveniles.

Morrill agrees with Conder’s concerns and prefers keeping this an in-season decision if an adult passage issue is observed.

Lorz said it might be helpful to add language that this operation could be implemented in-season if there is an adult problem. Van Dyke requested including the hydraulic benefit. Wright will add a sentence to that effect in the first paragraph.

**Record of Final Action**: WITHDRAWN.

1. NWRFC inflow forecast for Little Goose Dam: [www.nwrfc.noaa.gov/river/station/flowplot/flowplot.cgi?id=LGSW1](https://www.nwrfc.noaa.gov/river/station/flowplot/flowplot.cgi?id=LGSW1) [↑](#footnote-ref-1)