OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE – 16 LGS 02 TSW Removal and ASW Installation
COORDINATION DATE – 22 February 2016
PROJECT - Little Goose Lock and Dam
RESPONSE DATE – 07 March 2016

Description of the problem
The top spillway weir (TSW), installed in 2009, is currently in spillway bay 1 at Little Goose Lock and Dam on the Little Snake River. An Adjustable Spillway Weir (ASW) at Little Goose is being installed for the following reasons:

(1) The gantry crane is used for all TSW component re-stacking, TSW adjustment or, if necessary to operate the TSW closure gate to shut off flow from the TSW. These activities prevent crane usage for other critical needs such as fish screen repairs and turbine unit maintenance.

(2) For fish passage, the TSW can only be configured in a high crest or low crest position. Several times over the last few years, there have been issues with adult passage over the TSW, depending on river conditions. Regional fish managers have proposed periodically altering the flow out of the TSW as a response to adult passage issues, potentially as often as on a daily basis.

(3) The design of the new structure incorporates a dedicated hoist that can be used to adjust flow out of the ASW by raising or lowering the weir crest height, or shut off flow completely without using the gantry crane.

(4) Lastly, with the ASW in place at Little Goose Dam, the TSW components can be held in reserve as a backup surface passage structure for Lower Granite Dam if spillway bay 1 becomes unusable due to spillway concrete problems or RSW operational problems. Note that modifications would be necessary at Lower Granite Dam (vent and hold down installations) prior to any TSW usage.

The ASW will employ a modular design similar to the existing TSW and will be removable to return the spillway to maximum flow capacity during major flood events.

Type of outage required
Dive inspections throughout the removal of the existing TSW and installation of the new ASW will require daily coordination with the project and BPA with respect to unit outages and overall river flow conditions to ensure safety. At this time, we do not anticipate any significant in water demolition, repairs or installation efforts.

Impact on facility operation
Spillway bay #1 will be out of operation from September 01, 2017 through January 31, 2018 while the contractor executes the requirements of the contract. Early in this construction window, Spillway gate #1 will be inoperable for a two week period as the contractor installs a new motor control center. Use of turbine units 5 and 6 may be restricted in support of dive operations throughout the construction window. Dives will

be coordinated with the Little Goose Project and RCC (Reservoir Control Center) as needed. This work will be conducted prior to the removal of the existing TSW.

Dates of impacts/repairs
The removal of the existing TSW and installation of the new ASW will occur from September 1, 2017 through January 31, 2018.

Length of time for repairs
During the dates referenced above, there is no spill anticipated through Spillway bay #1. During the removal of the existing TSW and installation of the new ASW, the spillway bay tainter gate will be closed. There will be spill during the testing and commissioning of the new ASW. There will also be some minor spill as we re-test the operation of the existing spillway bay #1 tainter valve.

Dive operations are anticipated to be no more than eight hour in length in any one day. The removal of the existing TSW from spillway bay #1 and relocation to temporary storage along the downstream lock channel approach is anticipated to take 4 days working from floating plant. The installation of all components of the ASW may consume up to 6 days working utilizing the same floating plant. Both of these operations assume an extended 10-12 hour work day.

Testing and commissioning of the new ASW will require approximately one week.

Expected impacts on fish passage
Impacts to both juvenile and adult fish are expected to be minimal throughout the life of the construction window. The adult fishway and the juvenile bypass/collection system will continue to operate as usual and work is slated to take place after the close of routine spill for juvenile fish passage. Since turbine units 5 and 6 are the lowest priority units at Little Goose, they are unlikely to operate during the remainder of the fish passage season. Late summer and fall flows rarely support the operation of more than 2-3 turbine units. The floating plant, when not in operations, will be moored at the juvenile fish facility mooring facility.

Comments from agencies

-----Original Message-----
From: Bill Hevlin - NOAA Federal [mailto:bill.hevlin@noaa.gov]
Sent: Thursday, March 03, 2016 5:43 PM
To: Bailey, John C NWW <John.C.Bailey@usace.army.mil>
Cc: Trevor Conder - NOAA Federal <trevor.conder@noaa.gov>; Bill Hevlin - NOAA Federal <bill.hevlin@noaa.gov>; Ritchie Graves - NOAA Federal <ritchie.graves@noaa.gov>
Subject: [EXTERNAL] Re: MOC 16 LGS 02 TSW Removal and ASW Installation

Hi John,
Please put this MOC on the agenda for FPOM discussion next week on March 10, 2016. I would like to hear the verbal responses from various regional fishery agencies to the MOC before responding directly to you in writing.

Thanks
Bill Hevlin
NOAA Fisheries

From March 10, 2016 FPOM Meeting Minutes:

4.9 16LGS02 TSW Removal and ASW Installation. **Pending.** Setter explained some of her conversation with Kiefer about the numbers of fish passing during a normal flow year when flows get down to 50kcfs. Conder agreed with Setter during a normal year but during a low flow year things could be different. Setter said the form isn't specific to a low flow year. Bettin asked if this issue is covered in the AAR. Conder said it isn't. FPOM discussed this further. Kiefer would like to explore finding agreement based on dates, flows, etc. for language to include in the FPP. Setter said FPOM is deadlocked right now so this issue can be elevated if needed. Hevlin added his two cents about low flows and warm temps. Conder suggested Kiefer come up with some language to take to FPAC. Kiefer agreed but said these issues take time and the longer we take more fish will die, if we wait until an emergency. Kiefer said we can probably find a trigger that is agreeable. Setter said this issue was sent to SRWG to look at a test. Bettin said we can't test because the fish won't be there by the time flows get that low. Kiefer and Bettin will talk later.

Final results

Please email or call with questions or concerns.

Thank you,

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