

September 26, 2017

Memorandum -- delivered via email

To: Chris Walker, NWP Operations Division Fishery Section
US Army Corps of Engineers (Corps)

From: ^{^ ^ ^} Anne Mullan, Endangered Species Biologist, Willamette Branch
West Coast Region, National Marine Fisheries Service (NMFS)

Subject: NMFS' comments on MFR "17BCL07 Remedial Investigation, Spill, and TDG"

Thank you for this opportunity to review this Memorandum of Coordination (MOC). This memo summarizes comments prepared by NMFS' West Coast Region technical staff.

General Comments

This MOC describes a proposed drawdown operation of Big Cliff reservoir to accommodate sampling of sediments for a remedial investigation study. The reservoir would be drawn down seven feet below the power pool (down to 1175 ft) from October 16th – 27th, and further drawn down to 1165 ft for two to four days within that timeframe. While the reservoir elevation will be below the power pool all discharge will be passed as spill, likely resulting in elevated TDG below Big Cliff Dam.

NMFS agrees that it is likely some late spawning adults and incubating eggs will be impacted by high TDG generated by this operation. As adults and eggs are believed to be salmonid life stages least sensitive to TDG, impacts are expected to be minor during this operation. However, chronic exposure to elevated TDG is known to increase morbidity and mortality of other life stages even at lower percent saturation levels (i.e., 110-120%). Therefore, even at 120% saturation there could be negative impacts on these less sensitive life stages over the two-week duration of high TDG exposure.

In addition to generating elevated TDG, it is possible that this drawdown will mobilize sediments and increase turbidity below Big Cliff Dam as the reservoir elevation drops below the power pool. However, the reservoir is not being drawn down to the bed sediments, much of the sediment in this system is likely trapped behind Detroit Dam, and the steep banks forming Big Cliff Reservoir are unlikely to release much sediment as they are exposed. Therefore, impacts from increased turbidity as a result of this operation are expected to be minor. Alternatively, if turbidity is high during the drawdown, we would prefer slowing or stopping the drawdown to allow a return to normal turbidity levels.

NMFS recommends updating the WFOP to include specific timing windows for such tests when refining maintenance outage windows in 2017. The Corps should inform WFPOM members if

there are other factors constraining scheduling of this kind of testing. In addition, NMFS requests continued coordination between the Corps and WFPOM members prior to conducting these (or similar) tests, and earlier coordination of anticipated tests to allow flexibility in scheduling. For example, while this test is scheduled within the secondary outage window identified in the WFOP earlier coordination may have indicated power valuations were not limiting this summer, allowing this test to be scheduled prior to spawning to avoid negative impacts to adult salmonids and their eggs. If not possible prior to spawning, waiting until later in October would reduce impacts to current spawners given the late start up over Willamette Falls, and continuing into the tributaries.

Please direct questions or concerns about these comments to Anne Mullan at anne.mullan@noaa.gov or Diana Dishman at diana.dishman@noaa.gov.

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