

# OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

**COORDINATION TITLE** – 16FAL01 Regulating Outlet Repairs

**COORDINATION DATE** – 09 September 2016

**PROJECT** – Fall Creek Dam

**RESPONSE DATE** – 23 September 2016

## Description of the problem

To ensure Fall Creek Dam can fully perform its mission helping reduce flood damage to Willamette River communities, the WVP will be rehabilitating the dam's two regulating outlets (RO). One RO will be rehabilitated in 2017, and the second RO will be completed the following year. To perform the repair, a bulkhead will need to be installed and the reservoir will need to be at or below elevation 715 feet for about a week during February of 2017 and 2018. Bulkhead installation is scheduled to occur in late February to maintain RO conveyance capacity during wetter winter months when we still observe high inflows. After bulkhead installation each year, reservoir refill will commence.

## Type of outage required

One of two regulating outlets will not be available during the construction windows.

## Impact on facility operation

Spill capacity at Fall Creek Dam will be reduced with only one regulating outlet available during the construction windows. There will be a delay in beginning reservoir refill potentially as long as one month in 2017 and 2018. In February, it is not possible to predict if the reservoir will fill due to delaying refill. Modeling (ResSim) indicates that refill of the reservoir is likely and will be mostly full during the normal time of year (May-Sep) assuming an average or wetter water year (Figure 1). However, if hydrologic conditions are less than average during winter/spring of 2017 or 2018, then the reservoir will not refill.

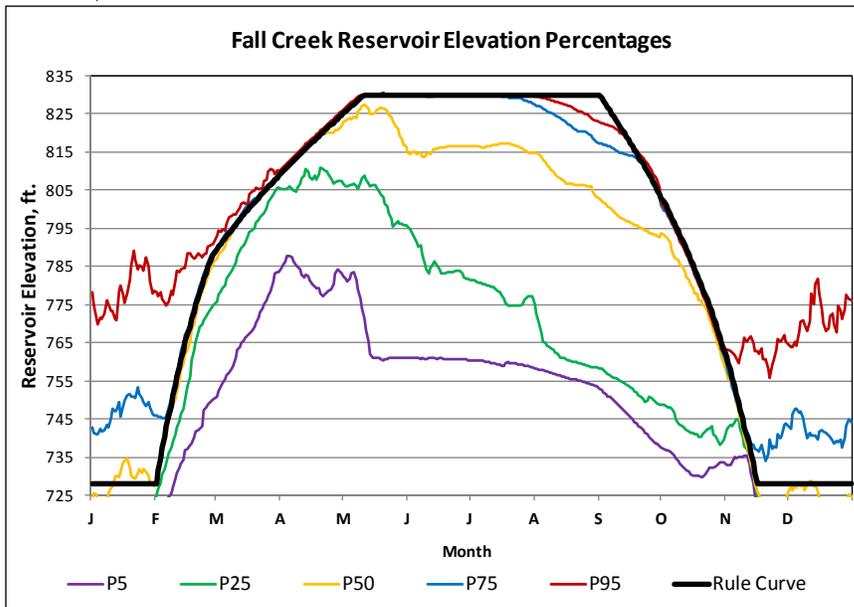


Figure 1. Fall Creek Reservoir Elevation Non-Exceedance Values from the Period of Record analysis. Colored lines show percent of time the elevation is not exceeded on each day of the year (black line: rule curve).

**Dates of impacts/repairs**

Bulkhead Installation (Outlet 1): Feb 20-24, 2017 (estimate)

RO 1 Repair: Mar 1-Oct 31 2017

Bulkhead Installation (Outlet 2): Feb 19-23, 2018 (estimate)

RO 2 Repair: Mar 1-Oct 31 2018

**Length of time for repairs**

It is estimated repairs will require about eight months for each outlet.

**Expected impacts on fish**

Bulkhead installation during February will require lower reservoir elevations and will likely pass some fry out of the reservoir downstream. This may impact adult return rates in 2021-2022 depending on the number of fry passed and their survival to the adult lifestage.

**Comments from agencies**

NMFS: Attachment 1

ODFW: Attachment 2

**Final results**

Refill of Fall Creek Reservoir will be delayed in February of 2017 and 2018 as planned to accommodate rehabilitation of ROs. The opportunity for potential monitoring and evaluation actions to examine downstream fish passage will be discussed and pursued within the RM&E team. The rehabilitation of the ROs at Fall Creek Dam are considered to be in-kind and not a structural modification, thus RPA 8.1 does not apply.

Please email or call with questions or concerns.

Thank you,

Chris Walker

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