

USACE Portland District (NWP) FFDRWG Update Form
6 August, 2020

PROJECT INFORMATION

Project Title	The Dalles Dam East Fish Ladder AWS Backup System
SCT Reference Number	
Project Manager (PM)	Mark Dasso Joseph.M.Dasso@usace.army.mil
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PROJECT DESCRIPTION

In 2008, the USACE Hydroelectric Design Center (HDC) conducted a risk failure analysis and report on the fish turbine units (USACE 2008). The HDC concluded that there was a 25 percent probability that at least one of the two fish water units would experience a significant failure in the next 10 years. Additionally, the probability of failure of both units at the same time was 1.4 percent in the next 10 years. The auxiliary water system (AWS) backup system has been installed to provide 1400 cfs in the event both Fish Units are inoperable.

Taking one or both of the units off line due to issues within the blade and/or linkage was estimated to be in the range of 2-4 days for simple linkage issues and up to 4 weeks if the blade assembly needs to be removed.

PROGRESS AND KEY ISSUES (List)

The two Fish Units are more than 50 years old, and there is currently no way to complete a turbine rehab without taking the east ladder out of criteria, potentially for up to two years. Recent backup AWS run time tests were largely to support an alternative being investigated to use the AWS with one fish unit during Fish Unit rehab and in the event that the only operating Fish Unit fails. Use of the AWS back-up system would allow rehab of one unit at a time with the other unit operating while being much closer to maintaining ladder criteria compared to single unit operation.

Operating the AWS backup system during Fish Unit rehab is much longer than ever envisioned with no active debris management system.

The backup AWS PDT discussed on July 23 the results of the run time tests (Ref 20TDA06 MFR) and debris accumulation on the trashracks as it relates to the original intent of the use of the AWS as well as in support of Fish Unit rehab.

CURRENT SCHEDULE

The PDT is working to determine if the run time tests are of sufficient duration and next planning steps for debris management.

FFDRWG REVIEW NEEDED AT MEETING? (If YES, list discussion topics below)

Not at this time. Updates will continue to be provided through FFDRWG and FPOM.