CENWP-OD-B **19 June 2019**

MEMORANDUM FOR THE RECORD

SUBJECT: 19BON12 MFR – FV4-4 (b-branch) Failure

On Friday, June 14th the b-branch entrance differential was found to be low and out of criteria. The proper configuration of diffusers was open supplying axillary water to the ladder and entrance however water levels remained low. The staff gauge for FV4-4 was open in an abnormally high position. Upon further investigation on Monday morning (June 17th) it was found that a pin that holds the upper section of the valve to the mechanical gearbox had become detached preventing the valve from actually opening.

Repairs were made and FV4-4 was returned to service (placed in auto) at approximately 1600 on Tuesday, June 18th.

Impacts on fish

During the failure of FV4-4 axillary water was not being supplied to entrance diffusers FG3-29 and FG3-30. These two diffusers are open year round maintaining entrance differentials at b-branch. During this time entrance differential ranged from approximately 0-0.3'. Normal entrance differentials are from 1.0'-2.0' with a target of 1.5'. Water supplied through FV4-3 remained normal supplying axillary water to diffusers FG3-18-28 and the b-branch staff gauge remained in criteria, targeted at 1.3' (shad mode). Due to FV4-4 failure, adult migrating salmonids may have experienced delayed passage while attempting to find the b-branch entrance. Pinniped predation is limited as very few animals have recently been observed on project.

Sincerely,
Project Fisheries