CENWP-OD-B 01 June 2022

MEMORANDUM FOR THE RECORD

SUBJECT: 22BON014 MFR Emergency WA Shore LPS Outage

On Friday, 27 May, Washington shore fishways were placed into shad mode operations as per FPP Section 2.4.2.3.

On Saturday, 28 May, BON fisheries discovered the north entrance ramp of the Washington Shore Auxiliary Water Supply Lamprey Passage Structure (WA-AWS LPS) angle irons and bolts were breaking/shearing off the concrete wall of the AWS channel. The force of the water from Fish Valve 6-9 (FV6-9), in combination with the breached structural integrity of the north ramp, is causing excessive stress on the remainder of the LPS.

This has caused further damage in the form of cracked welds on the north ramp and rest box junction. As a result, BON fisheries decided FV6-9 should be operated within the non-shad passage season criteria to reduce the amount of force against the LPS ramps and reduce further damage until repairs can be made. Additional bolts were added on 05/31/22 to help secure the ramp until the clearance can be placed for repairs.

The WA shore LPS will be dewatered on 6/2/2022 and the fish ladder water level will need to be reduced to facilitate the removal of the damaged ramp. Once the emergency ramp removal is completed, the system will be returned to service. There will still be the south entrance ramp in the AWS channel and two additional entrance ramps near the Upstream Migrant Tunnel Junction (UMTJ) to provide lamprey access to the WA shore LPS. This work needs to be completed as soon as possible to prevent further damage to the entire WA shore LPS.

- A. Species Lamprey and Shad (reduced FV 6-9 flow)
- B. Origin –
- C. Length -
- D. Marks and tags –
- E. Marks and Injuries found on carcass –
- F. Cause and Time of Death –
- G. Future and Preventative Measures –

SEE PHOTOS BELOW



Crack on north ramp



Photo looking downstream in AWS channel South ramp (left) and broken north ramp (right)



Broken angle iron on north entrance ramp of LPS with AWS flow surrounding ramp.





Crack at junction of rest box and north ramp.



Sheared off bolt (middle) with two new bolts installed on 5/31 to help ramp stay in place until LPS dewatering

Sincerely, Bonneville Project Fisheries

After Action:

The offending ramp was successfully removed on the morning of June 02. Bonn started dropping the water level \sim 0900 and had water levels back to normal by 1200. The remaining ramp seems to be in good condition and the LPS was quickly returned to service. No fish mortalities were observed. Timing the work with active sampling at the AFF resulted in few adult salmonids in the control section, only \sim 6 were observed.





