CENWP-OD-B

05/06/2020

MEMORANDUM FOR THE RECORD 20BON14

SUBJECT: Cascades Island Fish Valves and Spill bays 1 & 2 Closure for Intake Rack Cleaning

On Sunday, 26 April the outer trash racks of the Cascades Island gatewell intake pit were found to be clogged, with a differential of $\sim 1'$. By Monday morning, this had increased to $\sim 3'$. This change in flow dynamics caused valves controlling flow to the lower ladder (FV 5-3, FV 5-4) to try and adjust. This "unnatural" flow can cause damage to the diffusers below, blow gratings, etc. With numerous diffusers already OOS in the CI entrance bay, it was necessary to address the issue immediately.

On Tuesday, 28 April, both fish valves (FV 5-3, FV 5-4) were closed in order to back up flow and reduce suction on the racks. Spill bays 1 and 2 were also closed, with the spill directed elsewhere, for the safety of the crane operators. The trash racks were cleaned and the ladder returned to service. The outage lasted from approximately 1030 to 1400, with spill bay 2 being opened for the last several hours of work. During the work period, CI fishway operated with a reduced entrance differential.

The clogging was due to the increase in river flow and the old log boom protecting the trash racks being worn out and ineffective. It was replaced with a temporary newer boom to help prevent more clogging. Installation of the new boom required FV 5-3 and 5-4 to be closed from 0853 to 0907 on 30 April.

Sincerely, Project Fisheries