

MEMORANDUM FOR THE RECORD**SUBJECT: 19JDA07 Juvenile Chinook and Steelhead Mortalities in Gatewell 2B**

On April 20 during the daily routine gatewell inspection, 21 dead Chinook and steelhead smolts were found and removed from gatewell slot 2B. The technician cycled the orifice seven times in case the issue was a plugged orifice but the orifice open and closed correctly each time. Later on that night, MU2 was taken out of service on when the fish screen in slot A tripped. Six more smolts were found over the next two days. Screens in slots A and B were inspected on April 22 (Monday). There were no tears or noticeable defects to the STS screens. Additionally, 5 smolts were removed from the same slot 2B on April 14.

Date	CH-Clipped	CH-UNC	ST-Clipped	ST-UNC
20-Apr	3	1	14	3
21-Apr	0	0	2	0
22-Apr	1	1	2	0
23-Apr	4	3	4	2

Date	CH-Clipped	CH-UNC	ST-Clipped	ST-UNC	Unknown
24-Apr	5	2	1	0	8

UPDATE 25 April

On April 24 during the daily gatewell inspection an additional 16 dead Chinook and Steelhead smolts were found in the gatewell of unit 2B. The unit was promptly forced out of service with a suspected blocked orifice since trash raking and pulling the screens for inspection had already been done. At 1400 JDM tried inspecting the orifice with the trolley camera, but the water clarity was too turbid (<1' visibility). On April 25, after modifying camera positions on the trolley, JDM verified that the orifice knife gate had detached from the shaft and was closed. A crane crew deployed the dipping basket to salvage fish trapped in the gatewell at 1400. A rough estimate of 7,000 smolts were recovered and released into the adjacent gatewell slot.

- A. Species – Chinook (*Oncorhynchus tshawytscha*) and Steelhead (*Oncorhynchus mykiss*)
- B. Origin – unknown
- C. Length – not measured
- D. Marks and tags – 28 smolts were clipped/ one right eye red elastomer tag.
- E. Marks and Injuries found on carcass –
- F. Cause and Time of Death – broken orifice
- G. Future and Preventative Measures – JDM will drop bulkheads in main unit slot 2B and inspect and reattached the orifice shaft to the knife gate. JDA technicians will increase gatewell inspections.

Sincerely,
Project Fisheries