

August 13, 1997

F/NWO3

MEMO FOR: Hydro Program Files

FROM: Gary Fredricks

SUBJECT: Chronology of the summer 1997 Bonneville Dam adult fish passage emergency.

On May 16 the Bonneville Project called NMFS Hydro Program with the concern that there seemed to be an unusual amount of upwelling in the diffuser areas of the second powerhouse adult fishway. At this time we indicated our concern that if this upwelling was not reduced, the diffuser gratings could be blown off. Later that same day I called the project and suggested that they reduce the adult fishway entrance gate depth back from 13 feet to 11 feet and reduce the flow through the Auxiliary Water System (AWS) that feeds the fish ladder diffusers. Reducing this flow would reduce pressure on the diffuser gratings.

On June 12, at a meeting of the multi-agency Fish Passage Operations and Maintenance Coordination Team (FPOM), I asked the Bonneville Project if they had inspected the diffuser gratings at the second powerhouse. They had not and I asked them to do as soon as possible.

On July 16 the Bonneville Project called to report that they had inspected the diffuser gratings at the second powerhouse adult fishway and discovered number of misplaced gratings. They also indicated that an unknown number of adult salmon may have become trapped in the fishway AWS. The COE immediately began repair of the misplaced gratings. A FPOM conference call was held on July 22 to develop a regional decision on how to proceed with interim and long-term fixes. The decision was to begin limited ladder operation as possible and develop plans for immediate salvage of trapped fish. On July 24, the diffuser gratings were replaced in the north end of the collection channel and ladder and this portion of the fishway was paced into limited operation (no AWS water). Diffusers were left off the south end of the fishway to allow trapped fish a way to leave the AWS. Also on July 24, the regional Salmon Managers asked the Bonneville Power Administration to stop operation of the second powerhouse to reduce fish attraction into a poor fish passage situation. On July 25, BPA complied with this request.

Between July 24 and 29 the FPOM developed plans for a special operation that would lure trapped fish out of the AWS to an area where they could be returned to the river. This operation started on July 31 and ran for four days. One adult steelhead was released on the second day. No other adult salmon were seen during this operation and the operation was canceled on August 4. During this same time the FPOM was also developing plans to dewater the fishway and AWS and salvage the trapped fish. On August 4 and 5, the Corps' Fishery Field Unit monitored the AWS for the presence of fish with hydroacoustic monitors. Very few were detected and the majority of those were shorter than adult salmon (<15"). Regional Salmon Managers met on August 5 and decided to cancel plans to salvage fish and repair the damaged fishway and the decision was made to start interim operation of the fishway with limited AWS flow. This decision was based on the apparent low numbers of trapped salmon in the AWS and the need to get the fishway in working

order to reduce project passage impacts on the imminent run of fall chinook and summer steelhead. This operation started on August 7 and continues to run that way at the time of this writing (August 13).