

Memorandum

TO: Scott Carlon, NOAA National Marine Fisheries Service
FROM: Tom Kahler, Douglas PUD
SUBJECT: Fish Salvage During Winter Maintenance Outage of Wells Dam East Fishway
DATE: January 17, 2023

We dewatered the Wells Dam east fishway for annual maintenance on January 4 and 16, 2023. At 9:00 AM on the 4th, we closed the ladder exits and reduced supplemental flow to 20 percent. From approximately 9:45 to 10:45 AM, we salvaged fish remaining in the ladder, after which we turned off supplemental flow to the ladder portion of the fishway. The mechanics were unable to dewater the collection gallery the next day as planned because of a failure to obtain a bulkhead seal. Investigation with an ROV failed to identify the source of the problem. On January 12, divers identified the problem as an accumulation of bedload at the base of a bulkhead slot in a fish-pump intake. After divers removed the accumulated material, mechanics reset those bulkheads and obtained the seal necessary for dewatering the collection gallery. However, by then, it was too late in the day to complete dewatering and fish salvage. On January 16, we completed dewatering the east fishway by draining the collection gallery, implementing fish-salvage operations from approximately 10:00-11:00 AM. On both salvage days, we released fish downstream from Wells Dam at Carpenter Island boat launch. The following table lists fish and invertebrates salvaged.

Numbers of fishes and invertebrates salvaged from the east-fishway ladder and collection gallery at Wells Dam on January 4 and 16, 2023

Species	1/4/2023	1/16/2023	Total
	Ladder	Collection Gallery	
Wild steelhead juvenile	18	10	28
Hatchery steelhead juvenile CWTO	2*	0	2
Hatchery steelhead juvenile not scanned	0	7	7
Hatchery steelhead juvenile Ad+CWT+LV	1*	0	1
Hybrid cutthroat/rainbow	0	1	1
Cutthroat Trout	0	2	2
Mountain Whitefish	13	2	15
Northern Pikeminnow	1	0	1
Three-spine Stickleback	0	4	4
Sculpin spp.	0	32	32
Sucker spp.	0	2	2
Redside Shiner	0	8	8
Lamprey, larval	0	12	12
Lamprey, juvenile	0	10	10
Non-native northern crayfish	0	18*	18
Total	35	108	143

*Captured live; euthanized

c: Wells HCP Coordinating Committee,
Ritchie Graves, NOAA NMFS