

SYSTEM OPERATIONAL REQUEST: #99-29

- *The following State and Federal Salmon Managers have participated in the preparation of this SOR: Oregon Department of Fish & Wildlife, U.S. Fish & Wildlife Service, Washington Department of Fish and Wildlife, Idaho Department of Fish & Game, and the Columbia River Inter-Tribal Fish Commission.*

TO:

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FROM: Marv Yoshinaka, Chairperson, Salmon Managers

DATE: October 1, 1999

SUBJECT: Bonneville Flows for Protection of Spawning Fall Chinook at Ives/Pierce Islands

SPECIFICATIONS:

- Beginning immediately, maintain a minimum instantaneous discharge from Bonneville Dam of 125 Kcfs through October 31, 1999.
- This requested operation should not take precedence over maintaining pool elevations as discussed between the US Army Corps of Engineers and the Treaty Tribes for the duration of the Treaty fishery. The Treaty fishery will end on Saturday, October 2, 1999.
- Maintain Grand Coulee Reservoir above 1283 feet to facilitate kokanee broodstock collection and tributary access.

JUSTIFICATION: On September 29, 1999 a USFWS survey crew documented fall chinook building redds and spawning in the small channel downstream from the mouth of Hamilton Creek and out on the control section between Ives and Pierce Islands. These observations were made as part of the routine sampling conducted for the joint USFWS/ODFW/WDFW Ives/Pierce Island study. An estimated 10-20 redds were observed, some with fish on them, with an estimated additional 100 to 200 fish staging in this area. The unusually high flows that occurred in September due to the power production were most likely responsible for drawing fish into this area earlier than observed in some past years. Flows at Bonneville Dam ranged from 120 to 163 Kcfs over the past two weeks, with an average of 142 Kcfs. The hourly flows during the survey on September 29 were as low as 105 Kcfs and as high as 125 Kcfs. Fish on redds were observed partially out of the water and some redds, which were built during recent higher flows were

exposed above the water levels observed during the survey. The fishery agencies are interested in protecting the fish that are presently in this area.

The most recent SSARR dated September 28, 1999 projects the following average flows at Bonneville:

October 1-15:	128.9 Kcfs
October 16-31:	121.2 Kcfs
November 1-15:	142.6 Kcfs
November 16-31	152.5 Kcfs

The SSARR is in accordance with BPA's latest DOP TSR study and includes realistic assumptions for Non Treaty storage releases. Based on this SSARR, the impact of providing the requested flows (125 Kcfs) was analyzed for the period of September 30 through October 31, 1999. We believe that this operation could be provided with little impact to the storage elevations projected in the SSARR. The following reservoir elevations are expected for Grand Coulee Dam. (All releases from upstream storage reservoirs were assumed to remain the same as described in the SSARR.)

Date	GCL SSARR Elevation	GCL FISH PROTECTION OPERATION
September 30	1285.7	1285.9
October 15	1284	1286
October 30	1284	1284

As you can see from the table, the proposed fish protection operation results in similar reservoir elevations since it mostly reshapes the flow during October.

In summary, the most recent information provided for expected flow conditions suggest that the proposal made here could be implemented with little risk to reservoir elevations. The biological benefits are clear. Failure to provide the needed flows **on an instantaneous basis** will result in the dewatering of redds already established, interruption of staging and potential redd building, as well as mortality to fish already on redds in the area.