SYSTEM OPERATIONAL REQUEST: #2005-22

The following State, Federal, and Tribal Salmon Managers have participated in the preparation and support this SOR: U.S. Fish & Wildlife Service, Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, the Washington Department of Fish and Wildlife, NOAA Fisheries, Nez Perce Tribe, Shoshone-Bannock Tribes, and the Columbia River Inter-Tribal Fish Commission.

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FROM: Russ Kiefer, Chairperson, Salmon Managers

DATE: December 6, 2005

SUBJECT: Snake River Zero Nighttime and Weekend Flow

SPECIFICATIONS:

The fishery agencies and tribes recommend following the guidelines they developed in 2003 regarding the implementation of zero flow at Snake River projects.

JUSTIFICATION:

The COE LWG water Control Manual states on page 8-2,

"From December to February, "zero" minimum project discharge is permitted on a limited basis. Under an agreement between the Corps of Engineers and the fishery agencies, zero river flow is allowed for water storage during low power demand periods (at night and on weekends) when there are few, if any, actively migrating anadromous fish present in the Snake River... Water stored under zero river flow conditions may maximize power production from the Columbia River basin system, but zero river flow operations are not recommended at Lower Granite when fish are actively migrating in the Snake River."

In the Winter 2003/2004, the Salmon Managers proposed the following criteria to define what is meant by "few" migrating adults.

- 1. The number of adults migrating per day is defined as the number of upstream counts minus the number of downstream counts.
- 2. A three-day moving average will be used to determine if the few migrating adult criterion has been met.
- 3. "Wild" and "total" returns will be calculated separately. Only one of the categories is necessary to show that more than a few adults are migrating.
- 4. The run to date is defined as the cumulative number of adult steelhead in the "wild and "total" categories passing Lower Granite Dam since June 1st of the return year.

The few migrating adult criterion trigger will be defined on a sliding scale outlined in the following table. The table applies to both "wild" and "total" categories of returning adult steelhead.

| Run to date># | Run to date≤# | Few criteria<# |
|---------------|---------------|----------------|
| 0 | 30,000 | 10 |
| 30,000 | 60,000 | 20 |
| 60,000 | 100,000 | 35 |
| 100,000 | 150,000 | 50 |
| 150,000 | 200,000 | 65 |
| 200,000 | 250,000 | 80 |
| 250,000 | | 100 |

As of December 2, 2005, 149,490 total steelhead and 34,220 wild steelhead had passed Lower Granite Dam since June 1, 2005. Using the above table proposed by the Salmon Managers, "few" fish would be defined as less than 50 fish over a three day moving average using the total steelhead number and less than 20 fish using the wild steelhead number. The three-day average total steelhead count at Lower Granite over 11/3, 12/1, and 12/2 was 82 fish and the wild fish three-day average was 25 fish. In either case, the three-day average of fish exceeds the definition of "few" and the salmon managers would not recommend operating to zero nighttime or weekend flow. The salmon managers recommend using the proposed criterion for implementing zero nighttime and weekend flow this year.