

Proposed 2002 Hanford Reach Juvenile Fall Chinook Protection Program

February 25, 2002

The objectives for development of this program as proposed by the mid-Columbia hydroelectric operators are:

1. Provide a high level of protection for rearing fall chinook fry;
2. Maintain reasonable load following capability at all 7 projects;
3. Monitoring and evaluation that allows evaluation of the program relative to its effect on entrapment and stranding; and
4. A monitoring program that allows in-season changes of operations if substantial mortality is detected.
5. If possible, within the requirements of flood control, power generation, project operating constraints, and the BO, a goal of the program will be to incorporate the objective of releasing GCL weekly average discharge in a constant or steadily increasing manner.

2002 Program Elements

Starting Program Operating Constraints

1. Begin index seining (6 standard beach seine hauls at pre-determined locations) one week prior to the calculated start of emergence under the Vernita Bar Agreement. Index seining will be conducted daily to define the beginning of susceptibility.
2. Start operational constraints for 2002 program when a daily total of 50 or more sub-yearling chinook is sampled from the 6 index seining stations. During each index seining sample, sub-yearling fork length will be reported. After program is initiated, decrease index seining to one time per week.

When PRD discharge¹ is between Vernita Bar Agreement minimum and 80 kcfs:

When discharge at Priest Rapids is between VBA minimum and 80 kcfs, the mid-Columbia projects will limit flow fluctuations at Priest Rapids to no more than 20 kcfs.

When PRD discharge is between 80 and 110 kcfs:

When discharge at Priest Rapids is between 80 and 110 kcfs, the mid-Columbia projects will limit flow fluctuations at Priest Rapids to no more than 30 kcfs.

When PRD discharge is between 110 and 140 kcfs:

When discharge at Priest Rapids is between 110 and 140 kcfs, the mid-Columbia projects will limit flow fluctuations at Priest Rapids to no more than 40 kcfs.

¹ Priest Rapids discharge will be calculated in 2 separate ways: for weekdays it will be a rolling 5-day average of the previous 5 weekdays; for weekends it will be the BPA Friday PRD estimates for Saturday and Sunday.

When PRD discharge is between 140 and 170 kcfs:

When discharge at Priest Rapids is between 140 and 170 kcfs, the mid-Columbia projects will limit flow fluctuations at Priest Rapids to no more than 60 kcfs.

When PRD discharge is greater than 170 kcfs:

When discharge at Priest Rapids is greater than 170 kcfs, the mid-Columbia projects will maintain a 150 kcfs minimum hourly discharge at Priest Rapids.

Ending Program Operating Constraints

When 400 or more temperature units (°C) have accumulated following the end of emergence under the Vernita Bar Agreement, the operating constraints identified above will end.

2. Monitoring will continue depending on presence of subyearling chinook as identified below.

Monitoring, Evaluation and Adaptive Management

1. Monitoring under this program would consist of random sampling on a 8.5 mile subsection of the Hanford Reach (RM 364.5 to RM 373). This stretch runs from approximately the upstream end of Locke Island down to an area just upstream of Hanford Slough. Crews would consist of a two person crew consisting of WDFW and Grant PUD personnel sampling seven days a week. Random samples will be taken within this 8.5 RM sampling area based on previously established protocols for selecting from a list of possible random sampling plots within each 10 kcfs flow band. Grant PUD will provide funding for this effort and a weekly summation will be provided to Grant PUD.
2. If the field monitoring crew observes that a significant fall chinook mortality event is occurring or imminent, they will immediately notify the designated representative of the Washington Department of Fish and Wildlife (WDFW) and explain the situation. The WDFW representative will confirm whether a significant fall chinook mortality event is occurring or imminent and decide whether to request a modification of operations. If alteration of operations appears appropriate, the WDFW representative will notify Grant County PUD immediately to discuss a remedy. If Grant County PUD concurs that a significant fall chinook mortality event is occurring or imminent, it will consult, as necessary, with other operators and an operational remedy will be implemented expeditiously.
3. Until stranding susceptibility ends, a weekly report for the Monday through Sunday time period will be produced by Grant County PUD and the WDFW. This report will be available on the Technical Management Team (TMT) website at the following URL:

[< www.nwd-wc.usace.army.mil/cgi-bin/proposal.cgi?type=index >](http://www.nwd-wc.usace.army.mil/cgi-bin/proposal.cgi?type=index)

and will be presented at the weekly TMT meetings. This report will also be distributed to the Hanford Reach Stranding Policy Group each Tuesday morning by e-mail. The TMT will serve as a forum for information exchange and will not be involved in decision making under this Program. It is anticipated that TMT decisions will facilitate and support activities under this Program. The authority for implementing any changes under this Program rests with the

mid-Columbia projects and any disputes will be handled through meetings of the Hanford Reach Stranding Policy Group.

- A. The weekly report will include the following operational information for each day: minimum hourly discharge from Priest Rapids Dam (PRD), maximum hourly discharge from PRD and day average discharge at PRD. The report will also provide weekly average discharge at PRD for each day which will be calculated as a rolling seven day average.
- B. The weekly reports will also include the following field monitoring information for each day: number of samples taken, number of stranded or entrapped chinook fry and number of chinook mortalities.