

December 6, 2005

Chris Carlson
Public Utility District of Grant County
P.O. Box 878
Ephrata, WA 98823

Dear Chris:

The maximum number of redds for fall Chinook salmon in the Hanford Reach during the fall of 2005 was estimated at 7,891 (Table 1). This estimate is slightly lower than the 2004 count of 8,468 and near the five-year-average estimated for 2000-2004 at 7,546. The main spawning areas were found in areas similar to those identified last year. The following list describes the locations in order of abundance from greatest to lowest number of redds counted: Vernita Bar, Locke Island complex (Islands 4-6), Islands 8-10, Island 2, and the Ringold area (Islands 11-14).

I conducted four aerial surveys during the fall of 2005: October 23 and 30 and November 6 and 14. The first three flights occurred on Sundays when flows at Priest Rapids dam were lowered to near 41 kcfs in conjunction with ground redd surveys by Grant County PUD and Washington Department of Fish And Wildlife at Vernita Bar. Approximately 12 dewatered redds were found at the upstream part of unnamed island near Coyote Rapids during the October 30 and November 6 survey. No other areas of dewatered redds were identified. River flows on November 6 were somewhat higher at Vernita Bar due to a 3-hour average of 153 kcfs from 7 to 9 am. Due to higher water elevations, counts at Vernita Bar were slightly lower than the previous week. River flows averaged 68 kcfs for the final survey on November 14. Peak spawning was estimated to occur near the November 14 survey. Flight conditions were good for all surveys with the exception of the October 23rd flight where low clouds were present near Vernita Bar.

Please pass this information on to anyone else you think is interested.

Sincerely,

Bob Mueller
Ecology Group
PNNL

cc: Paul Hoffarth, WDFW
Dana Ward, USDOE
Janelle Downs, PNNL
Roger Dirkes, PNNL

Table 1. Summary of numbers of fall Chinook salmon redds estimated during the 2005 aerial surveys of the Hanford Reach, Columbia River.

Ref. Area ¹	General Location	10/23/2005	10/30/2005	11/6/2005	11/14/2005	Highest Total
1	Islands 11-14	2	356	592	708	708
2	Islands 8-10	43	448	1,067	948	1,067
3	Near Island 7	30	225	500	402	500
4	Island 6 (lower half)	13	580	1,080	1,229	1,229
5	Island 4, 5 and upper 6	10	690	845	1,130	1,130
6	Near Island 3	0	140	345	260	345
7	Near Island 2	25	205	505	895	895
8	Near Island 1	3	80	255	210	255
9	Near Coyote Rapids	0	114	304	260	304
10	Near Vernita Bar	45	1,355	1,171	1,430	1,430
	China Bar	0	25	28	25	28
	Total	171	4,218	6,692	7,497	7,891

¹ Dauble D.D and D.G. Watson. 1990. Spawning and Abundance of Fall Chinook Salmon (*Oncorhynchus tshawytscha*) in the Hanford Reach of the Columbia River, 1948-1988. Pacific Northwest National Laboratory, PNL-7289, Richland WA.