

May 13, 2016:

The following is an update of the latest run forecasts for hatchery-origin spring Chinook returning to Leavenworth (LNFH) and Winthrop (WNFH) national fish hatcheries. These data are in-season return estimates based on PIT tag detections at Bonneville Dam and expanded by PIT tag ratios at each station by year. Tagging ratios are not included in this report but are available by request (LNFH contact Greg Fraser [gregory\\_fraser@fws.gov](mailto:gregory_fraser@fws.gov), WNFH contact Michael Humling [michael\\_humling@fws.gov](mailto:michael_humling@fws.gov)). Thanks to John Box for compiling this information for WNFH.

For this forecast, we estimated that 70% of the spring Chinook have passed Bonneville Dam, totaling 102,902 adults (age-4 and age-5) and 5860 jacks (age-3) ([fpc.org](http://fpc.org)). The current run forecast by DART is 160,510 spring Chinook above Bonneville ([www.cbr.washington.edu](http://www.cbr.washington.edu)). However, this estimate is adjusted daily when fish passage data are reported and will affect forecasts to upriver locations. The DART run forecast has decreased daily for the last week as numbers over Bonneville Dam have continued to decline.

**Table 1. Leavenworth National Fish Hatchery (LNFH)-origin spring Chinook PIT tag detections, PIT tag expansion estimates and the run forecast above Bonneville Dam (BON) as of 5/12/2016.**

Age	PITs detected at BON	PIT Expansion	Run Forecast
3	2	152	217
4	47	4,352	6,218
5	7	1,233	1,762
Totals	42	5,738	8,197

Run forecast were produced estimating that 70% of the spring Chinook run that has passed Bonneville Dam.

**Table 2. LNFH spring Chinook escapement estimates to Rock Island and LNFH, based on PIT tag detections at Bonneville on 5/12/2016 and a 5-year average of survival rates.**

Estimated LNFH Returns to Rock Island	<b>5,246</b>	<i>64% survival from Bon to Rock Island</i>
Estimated LNFH Returns to LNFH	<b>2,938</b>	<i>56% survival from Rock Island to LNFH</i>

**Table 3. Winthrop National Fish Hatchery (WNFH)-origin spring Chinook PIT tag detections, PIT tag expansion estimates and the run forecast above Bonneville Dam (BON) as of 5/12/2016.**

Age	PITs detected at BON	PIT Expansion	Run Forecast
3	2	81	116
4	15	1,684	2,406
5	3	106	152
Totals	20	1,872	2,674

**Table 4. WNFH spring Chinook escapement estimates to Wells and WNFH, based on PIT tag detections at Bonneville on 5/12/2016 and a 5-year average of survival rates.**

Estimated WNFH Returns to Wells	<b>2,000</b>	<i>74.8% Survival from Bon to Wells<sup>1</sup></i>
Estimated WNFH Returns to WNFH <sup>2</sup>	<b>1,680</b>	<i>84% Survival from Wells to WNFH</i>

<sup>1</sup>Used a combination of LNFH and WNFH survival rates due to changes in fish marking at WNFH in the past 5 years

<sup>2</sup>Spring Creek PIT Array was used as a surrogate for WNFH due to changing management strategies in the past 5 years