

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 77% of the spring Chinook have passed Bonneville Dam totaling 117,634 adults (age-4 and age-5) and 8637 jacks (age-3) ([fpc.org](http://fpc.org)). The current run forecast by DART is 153,435 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, last Thursday the DART run forecast was predicting 160,510 spring Chinook above Bonneville.

**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 5/19/2016.**

Age	PITs detected at BON	PIT Expansion	Run Forecast
3	3	228	296
4	49	4,538	5,893
5	7	1,233	1,602
Totals	59	5,999	7,791

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 5/19/2016 and a 5-year average of survival rates.**

Estimated LNFH Returns to Rock Island	<b>4,986</b>	<i>64% survival from Bon to Rock Island</i>
Estimated LNFH Returns to LNFH	<b>2,792</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 5/19/2016.**

Age	PITs detected at BON	PIT Expansion	Run Forecast
3	3	122	158
4	15	1,684	2,187
5	5	106	138
Totals	23	1,912	2,483

**Table 4. WNFH spring Chinook escapement estimates to Wells and WNFH, based on PIT tag detections at Bonneville on 5/19/2016 and a 5-year average of survival rates.**

Estimated WNFH Returns to Wells	<b>1,857</b>	<i>74.8% Survival from Bon to Wells<sup>1</sup></i>
Estimated WNFH Returns to WNFH <sup>2</sup>	<b>1,560</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