

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

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Subj: January Hatchery and Natural Production Report
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Cc: Distribution list.

HATCHERY ACTIVITIES

At Wells Hatchery, the yearling Chinook Salmon, 2019 brood Coho, and most 2020 brood steelhead were held on 100% surface water during January. The Methow safety-net and Okanogan basin steelhead groups were held on a mix of 50/50 well/surface water during the month, and all other populations were reared on 100% well water. At Methow Hatchery, 2020 brood fish were held on 100% well water, while 2019 brood fish were held on 100% surface water during the month.

2019 Twisp Spring Chinook Salmon

A total of 37,925 fish were on-station at the end of the month with 14 additional fish reported as mortalities. These fish had mean fork lengths between 119.1 and 120.7 mm (Table 1) and were approximately 22-23 fish per pound (FPP). The number of fish on-station that apply to Douglas PUD Habitat Conservation Plan (HCP), Chelan PUD HCP, and Grant PUD Salmon and Steelhead Settlement Agreement (SSSA) mitigation obligations is listed in Appendix A.

2019 Methow Composite Spring Chinook Salmon

A total of 201,115 fish were on-station at the end of the month with 625 additional fish reported as mortalities. These fish had mean fork lengths between 119.0 and 125.0 mm (Table 1) and were approximately 19-25 FPP. These fish will support releases from the Chewuch Acclimation Pond (CAP; release target = 61,000), Goat Wall Acclimation Pond (GWAP; release target = 25,000), and from Methow Hatchery (release target = 107,765). Low-level mortalities in one raceway have been attributed to chronic bacterial kidney disease; the affected fish remain isolated from the main group and are being monitored closely. No therapeutic interventions are recommended at this time due to a lack of effective and safe treatment options. The number of fish on-station that apply to Douglas PUD HCP, Chelan PUD HCP, and Grant PUD SSSA mitigation obligations is listed in Appendix A.

Table 1. 2019 brood spring Chinook Salmon length and weight sampling at Methow Hatchery during the month of January. MC = MetComp.

Raceway	Stock-release	Fork length (mm)				FPP
		Mean	<i>N</i>	SD	CV	
1	Twisp	119.1	112	13.5	11.4	22.7
2	Twisp	120.7	104	12.1	10.1	21.6
3	MC-Goat Wall	124.0	103	15.2	12.2	19.5
4	MC-Goat Wall	119.0	105	12.5	10.5	22.2
5	MC-Chewuch	119.0	111	14.9	12.5	22.7
6	MC-Chewuch	120.3	105	12.7	10.6	21.6
7	MC-Chewuch	125.0	105	14.2	11.3	19.3
13	MC-on-station	119.1	193	16.6	13.9	22.0

2020 Twisp Spring Chinook Salmon

A total of 25,228 fish were on-station at the end of the month with 48 additional fish reported as mortalities. The number of fish on-station that apply to Douglas PUD Habitat Conservation Plan (HCP), Chelan PUD HCP, and Grant PUD Salmon and Steelhead Settlement Agreement (SSSA) mitigation obligations is listed in Appendix A.

2020 Methow Composite Spring Chinook Salmon

A total of 215,524 fish were on-station at the end of the month with 606 additional fish reported as mortalities. The number of fish on-station that apply to Douglas PUD Habitat Conservation Plan (HCP), Chelan PUD HCP, and Grant PUD Salmon and Steelhead Settlement Agreement (SSSA) mitigation obligations is listed in Appendix A.

2019 Summer Chinook

Wells Hatchery had 367,277 yearling-program summer Chinook parr on-station with 250 additional fish reported as mortalities during the month. These fish were at approximately 15 FPP at the end of the month. Summer Chinook are being reared to fulfill Wells HCP mitigation obligations (Appendix A).

2020 Summer Chinook

Wells Hatchery had a total of 375,479 sac-fry for the yearling program and 1,572,036 fry for subyearling programs on-station at the end of the month. The subyearling program includes releases for the DPUD inundation compensation program, the State of Washington Orca-program, and the Pacific Salmon Treaty program. A fish health examination in late January revealed significant early mortality was caused by coagulated yolk disease, a non-infectious condition, suggesting eggs and alevins required prolonged chilling during incubation prior to ponding. No therapeutic interventions are planned as this is a developmental disease. Summer Chinook are being reared to fulfill Wells HCP mitigation obligations (Appendix A).

2020 Summer Steelhead

Wells Hatchery had 173,359 parr for the Columbia safety-net group, 106,940 parr for the Methow safety-net group, 12,160 parr for the Omak conservation group, and 89,914 parr for the Okanogan hatchery group on-station at the end of January (102,074 Okanogan basin fish total). Mortality during the month for these populations totaled 322 fish, primarily from the Columbia ($N = 150$) and Methow safety-net ($N = 100$) programs.

Wells Hatchery also had 24,177 parr for the Methow conservation program and 27,657 parr for the Twisp conservation program on-station at the end of January and these groups experienced mortalities of 15 fish and 13 fish during the month, respectively. Steelhead progeny are being reared to fulfill Douglas PUD Wells HCP mitigation obligations and to fulfill Grant PUD SSSA mitigation obligations.

2020 Kamloops Rainbow Trout

Wells Hatchery had 32,879 rainbow parr on-station at about 9 FPP with one additional fish reported as a mortality during January. Kamloops Rainbow Trout are reared under the Off-License Settlement Agreement between Douglas PUD and WDFW (Appendix B).

2019 Methow Coho

Wells Hatchery had 39,831 Methow Coho parr on-station at the end of the January, with 34 additional mortalities reported during the month. These fish were at approximately 28 FPP and will be reared at Wells Hatchery until transfer to the Twisp Acclimation Pond as pre-smolts in spring 2021. These fish are reared to meet Wells HCP mitigation obligations (Appendix A).

2020 Methow Coho

Wells Hatchery had 28,464 Methow Coho eyed-eggs on-station at the end of January. These eggs were incubating at Wells Hatchery throughout the month. The 2020 brood Coho will be reared at Wells Hatchery until transfer to the Twisp Acclimation Pond as pre-smolts in spring 2022.

2020 White Sturgeon

Wells Hatchery had 336 White Sturgeon progeny on-station at the end of the month. These fish were between 1 and 1.5 FPP and no mortality was reported during January. White Sturgeon progeny are reared at Wells Hatchery under the Wells Aquatic Settlement Agreement (Appendix C).

NATURAL PRODUCTION ACTIVITIES

PIT Tag Antenna Arrays

Data collected at all Methow basin PIT tag interrogation sites operated under this program, including Twisp (TWR), lower Methow (LMR), Lower Chewuch (CRW), Gold Creek (GLC), Libby Creek (LBC), and Wolf Creek (WFC) are uploaded to the PTAGIS database regularly, and can be viewed at the following website: <http://www.ptagis.org/data/quick-reports/small-scale-site-detections>

Appendix A. Number of fish reared at Wells and Methow hatcheries to meet Douglas County PUD’s Wells Habitat Conservation Plan mitigation objectives and other hatchery rearing agreements. Values are derived by applying fixed mitigation levels to the entire population on-station, and do not necessarily reflect separate rearing or release strategies.

Brood year	Species	Life stage	Program	Target release No.	Month												Total released /transfer
					Feb '20	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '21	
2018	Spring Chinook	Yearling smolt	CCPUD NNI	60,516 <i>released</i>	64,346	64,298	--	--	--	--	--	--	--	--	--	--	64,190
2018	Spring Chinook	Yearling smolt	GCPUD Priest Rapids NNI	134,126 <i>released</i>	142,614	142,508	--	--	--	--	--	--	--	--	--	--	142,270
2018	Spring Chinook	Yearling smolt	DCPUD Wells NNI	29,123 <i>released</i>	30,966	30,943	--	--	--	--	--	--	--	--	--	--	30,891
2019	Spring Chinook	Yearling smolt	CCPUD NNI	60,516 <i>released</i>	65,836	65,782	65,760	65,808	65,796	65,751	65,683	65,520	65,321	64,984	64,820	64,647	--
2019	Spring Chinook	Yearling smolt	GCPUD Priest Rapids NNI	134,126 <i>released</i>	146,918	145,798	145,749	145,857	145,829	145,730	145,578	145,217	144,716	144,028	143,665	143,282	--
2019	Spring Chinook	Yearling smolt	DCPUD Wells NNI	29,123 <i>released</i>	31,683	31,657	31,647	31,670	31,664	31,642	31,610	31,531	31,435	31,273	31,194	31,111	--
2020	Spring Chinook	Yearling smolt	CCPUD NNI	60,516 <i>released</i>	--	--	--	--	--	--	--	--	65,706	65,706	65,287	65,110	--
2020	Spring Chinook	Yearling smolt	GCPUD Priest Rapids NNI	134,126 <i>released</i>	--	--	--	--	--	--	--	--	145,629	145,629	144,700	144,308	--
2020	Spring Chinook	Yearling smolt	DCPUD Wells NNI	29,123 <i>released</i>	--	--	--	--	--	--	--	--	31,621	31,621	31,419	31,334	--
2018	Summer Chinook	Yearling smolt	DCPUD Fixed Hatchery Compensation	320,000 <i>released</i>	352,104	351,894	50,926	--	--	--	--	--	--	--	--	--	351,741
2019	Summer Chinook	Sub-yearling	DCPUD Fixed Hatchery Compensation	484,000 <i>released</i>	561,522	532,441	--	--	--	--	--	--	--	--	--	--	531,860
2019	Summer Chinook	Yearling smolt	DCPUD Fixed Hatchery Compensation	320,000 <i>released</i>	400,000	400,000	393,904	393,160	391,819	378,059	367,786	367,786	367,786	367,777	367,527	367,277	--

Appendix A. Continued.

Brood year	Species	Life stage	Program	Target release No.	Month												Total released /transfer
					Feb '20	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '21	
2020	Summer Chinook	Yearling smolt	DCPUD Fixed Hatchery Compensation	320,000 <i>released</i>	--	--	--	--	--	--	--	--	--	415,479	375,479	375,479	--
2020	Summer Chinook	Sub-yearling	DCPUD Fixed Hatchery Compensation	484,000 <i>released</i>	--	--	--	--	--	--	--	--	--	--	--	557,477	--
2019	Summer steelhead	Yearling smolt	DCPUD Fixed Hatchery Compensation ¹	300,000 <i>released</i>	323,068	322,779	--	--	--	--	--	--	--	--	--	--	300,660
2019	Summer steelhead	Yearling smolt	DCPUD Wells NNI ¹	8,000 <i>released</i>	8,615	8,607	--	--	--	--	--	--	--	--	--	--	8,018
2019	Summer steelhead	Yearling smolt	GCPUD Priest Rapids NNI	80,000 <i>released</i>	86,152	86,074	--	--	--	--	--	--	--	--	--	--	80,176
2019	Summer steelhead	Yearling smolt	GCPUD Priest Rapids NNI	20,000 <i>transferred</i>	19,680	9,548	--	--	--	--	--	--	--	--	--	--	19,653
2020	Summer steelhead	Yearling smolt	DCPUD Fixed Hatchery Compensation ¹	300,000 <i>released</i>	--	--	--	--	354,615	353,741	349,474	334,709	323,726	326,821	326,589	326,325	--
2020	Summer steelhead	Yearling smolt	DCPUD Wells NNI ¹	8,000 <i>released</i>	--	--	--	--	9,456	9,433	9,319	8,926	8,633	8,715	8,709	8,702	--
2020	Summer steelhead	Yearling smolt	GCPUD Priest Rapids NNI	80,000 <i>released</i>	--	--	--	--	94,564	94,331	93,193	89,256	86,327	87,152	87,091	87,020	--
2020	Summer steelhead	Yearling smolt	GCPUD Priest Rapids NNI	20,000 <i>transferred</i>	--	--	--	--	16,926	16,879	16,833	16,804	16,298	12,178	12,168	12,160	--
2018	Methow Coho	Yearling smolt	DCPUD Mitigation	37,000 <i>released</i>	43,180	--	--	--	--	--	--	--	--	--	--	--	43,111
2019	Methow Coho	Yearling smolt	DCPUD Mitigation	37,000 <i>released</i>	41,739	41,739	41,452	41,362	41,325	41,300	39,952	39,920	39,908	39,983	39,865	39,831	--

¹40,000 Inundation steelhead to be released in the Twisp or Methow with 8,000 NNI fish to total 48,000. 100,000 inundation steelhead to be released in the Methow as a safety net program. 160,000 inundation steelhead to be released directly to the Columbia.

Appendix B. Fish reared at Wells or Methow hatcheries under the Off-License Settlement Agreement.

Brood year	Species	Life stage	Program	Target (pounds) disposition	Month												Total released /transfer
					Feb '20	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '21	
2019	Kamloops Rainbow trout	Juv.	WDFW sport fish	Number (pounds) released	34,702	34,065	2,413	2,643	2,631	2,624	2,619	2,618	--	--	--	--	53,290
				Goal is 20,000 pounds annual combined	(4,338)	(8,516)	(1,207)	(1,317)	(2,631)	(2,624)	(5,238)	(8,727)	(9,703)	(--)	(--)	(--)	
2020	Kamloops Rainbow trout	Juv.	WDFW sport fish	Number (pounds) released	--	--	25,500	3,650	--	--	--	--	2,620	--	--	--	(33,070)
				Goal is 20,000 pounds annual combined	--	--	25,832	25,613	25,532	22,435	64,683	60,798	45,975	34,998	34,979	32,879	18,831

Appendix C. Fish reared at Wells Hatchery pursuant to the Wells Aquatic Settlement Agreement – White Sturgeon Management Plan.

Brood year	Species	Life stage	Program	Target disposition	Month												Total released/culled /transferred		
					Feb '20	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '21			
2019	White Sturgeon	Juvenile rearing	Wells White Sturgeon Supple-mentation	Up to 325	571	571	571	--	--	--	--	--	--	--	--	--	--		
				Culled	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
				Transferred	--	--	--	--	--	--	--	--	--	--	--	--	--	--	365
				Wells reservoir	--	--	--	570	--	--	--	--	--	--	--	--	--	--	570
2020	White Sturgeon	Juvenile rearing	Wells White Sturgeon Supple-mentation	Up to 325	--	--	--	--	--	1,543	1,384	1,203	738	350	350	336	--		
				Culled	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
				Transferred	--	--	--	--	--	--	--	--	--	436	647	--	--	--	647
				Wells reservoir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--