

NWW Juvenile Fish Passage Status Report (March 1- June 20, 2022)
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McNary Dam bypass systems were watered-up for early start on February 25th. Every other day condition sampling began at McNary Dam on March 3rd with the first condition sample on March 4th. McNary Dam early start collection was delayed one day due to a water leak. McNary Dam collection during the March 1-31 early start-up totaled 1,948 smolts in 2022 compared to 972 in 2020 for approximately the same time period.

Bypass systems were watered up for regular season operations on March 14 at Lower Granite Dam, March 23 at Little Goose and Lower Monumental dams and March 24 at Ice Harbor Dam. Collection for daily condition monitoring began on March 25 at Lower Granite Dam with every other day collection for condition monitoring commencing on April 1 at Little Goose Dam. Condition sampling began every third day at Lower Monumental Dam on April 1 and every other day on April 14. Collection for bi-weekly samples began on April 4 at Ice Harbor Dam. Daily fish collection for every other day barge transport began April 23rd at Lower Granite, Little Goose and Lower Monumental dams. Daily barge trips occurred May 16 through May 24 with the last barge trip occurring on June 19.

This year's springtime collection numbers at Lower Granite, Little Goose and Lower Monumental dams during April 1 – June 20 have been approximately 53%, 49% and 76% of the 10-year average (2012-2021; Table 1). Collection totals during the May 7 – May 17 period accounted for 56%, 47% and 48% of the total collection this spring, whereas the 10-year average during this same time period accounted for 24%, 27% and 35%. The number of smolts transported this year through June 20 have been approximately 83%, 67% and 87% of the 10-year average (2012-2021; Table 2), respectively. At McNary Dam, 534,884 smolts have been collected through June 20, 36% of the 10-year average, and all were bypassed. At Ice Harbor Dam, 2,564 fish have been sampled as of June 20, and all were bypassed.

Table 1. Collection numbers 2019 to 2022 and the 10-year average (2012-2021) for April 1 – June 20 at Lower Granite Dam, Little Goose Dam, Lower Monumental Dam and overall.

Collected	2019	2020	2021	2022	10y avg.
Lower Granite Dam	5,003,430	1,368,418	571,193	2,392,523	4,472,395
Little Goose Dam	3,177,229	1,062,141	282,571	1,368,564	2,786,722
Lower Monumental Dam	2,985,027	803,298	246,792	1,523,936	2,009,711
Overall	11,165,686	3,233,857	1,100,556	5,285,023	9,268,828

Table 2. Transported numbers 2019 to 2022 and the 10-year average (2012-2021) for April 1 – June 20 at Lower Granite Dam, Little Goose Dam, Lower Monumental Dam and overall.

Transported	2019	2020	2021	2022	10y avg.*
Lower Granite Dam	3,040,753	1,141,914	366,654	2,159,088	2,589,952
Little Goose Dam	2,277,118	1,012,087	255,901	1,355,215	2,022,384
Lower Monumental Dam	2,104,049	793,498	209,181	1,328,113	1,522,686
Overall	7,421,920	2,947,499	831,736	4,842,416	6,135,022

*Previous to 2018 barge transport operations did not begin until May 1st, from 2018-2022 collection for barge transport began April 23 or 24.

A total of 240,826 PIT-tagged juvenile salmon and steelhead have been detected passing Lower Granite Dam from April 3 – June 20. Of those, 187,391 (78%) were detected moving through the removable spillway weir (RSW) and 53,435 were detected in the juvenile bypass system (JBS). During the same

timeframe in 2021, a total of 264,872 juvenile salmon and steelhead were detected, of which 243,469 (92%) were detected at the RSW and 21,403 detected in the JBS (Table 3).

Table 3. Proportional spillway PIT tag detection (%) for juvenile salmon and steelhead for April 3 – June 20 at Lower Granite Dam, 2020 through 2022.

Species	2020	2021	2022
Chinook salmon*	79%	94%	75%
Steelhead	85%	87%	81%
Coho salmon	85%	96%	81%
Sockeye Salmon	92%	99%	84%
Combined	83%	92%	78%

*Yearling and subyearling Chinook salmon.

The 2022 spring fish passage spill operations began at 00:01 April 3rd on the Snake River and 00:01 April 10th on the Columbia River with summer spill beginning on June 21 and June 16, respectively. Snake River average river flow was approximately 94% of the 10-year average during spring spill operations (Table 4). Average river flow in the Columbia River at McNary Dam was 85% of the 10-year average during the same period of time. Percent spill levels in 2022 during the spring season were between 137% to 147% of the 10-year average at the three upper Snake River projects, 119% at Ice Harbor Dam and 127% of the 10-year average at McNary Dam.

Table 4. Average flow, spill and percent spill 2019-2022 and the 10-year average (2012-2021) during spring spill operations at Walla Walla projects on the Snake and Columbia rivers.

	Flow (kcfs)					Spill (kcfs)					Spill (%)				
	2019	2020	2021	2022	10-yr.	2019	2020	2021	2022	10-yr.	2019	2020	2021	2022	10-yr.
Lower Granite Dam (4/3-6/20)	120	89	61	88	93	46	53	39	47	36	39%	61%	64%	58%	40%
Little Goose Dam (4/3-6/20)	117	86	55	83	90	51	52	34	48	36	44%	61%	61%	59%	40%
Lower Monumental (4/3-6/20)	116	86	60	86	91	43	60	42	51	40	38%	69%	69%	64%	46%
Ice Harbor Dam (4/3-6/20)	121	91	62	86	94	83	65	41	68	61	69%	71%	65%	77%	65%
McNary Dam (4/10-6/15)	267	272	203	241	283	166	186	129	172	159	63%	67%	63%	70%	55%