

2025 Snake River Fall Chinook Salmon Return Breakdown

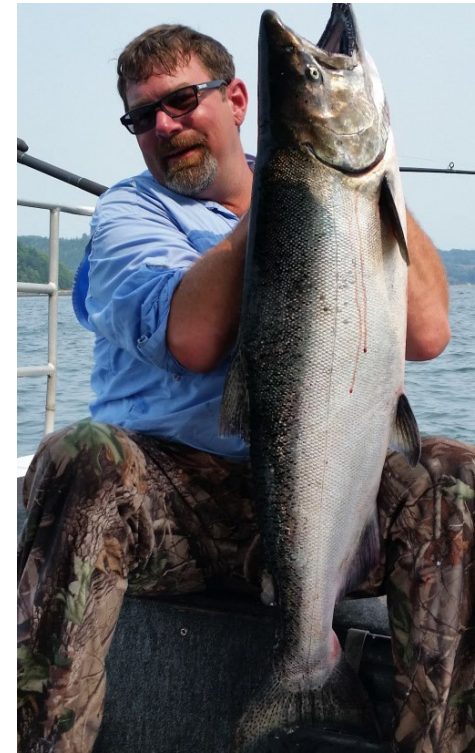
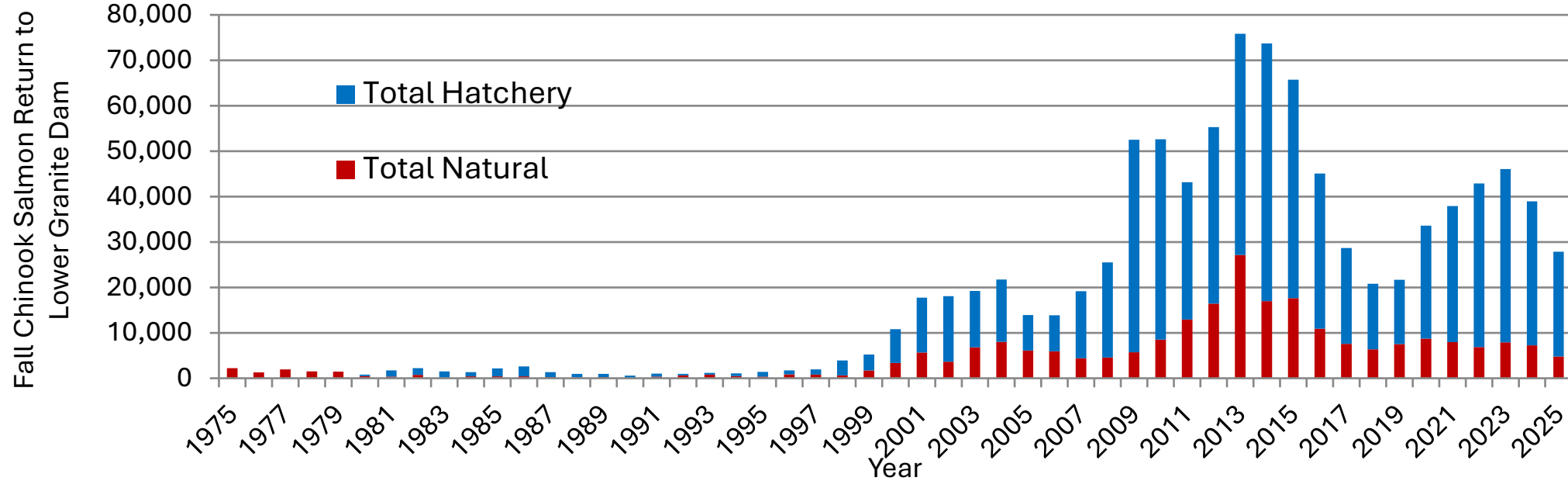


William Young and Drew Wickard

Nez Perce Tribe
Department of Fisheries Resource Management



Snake River Fall Chinook

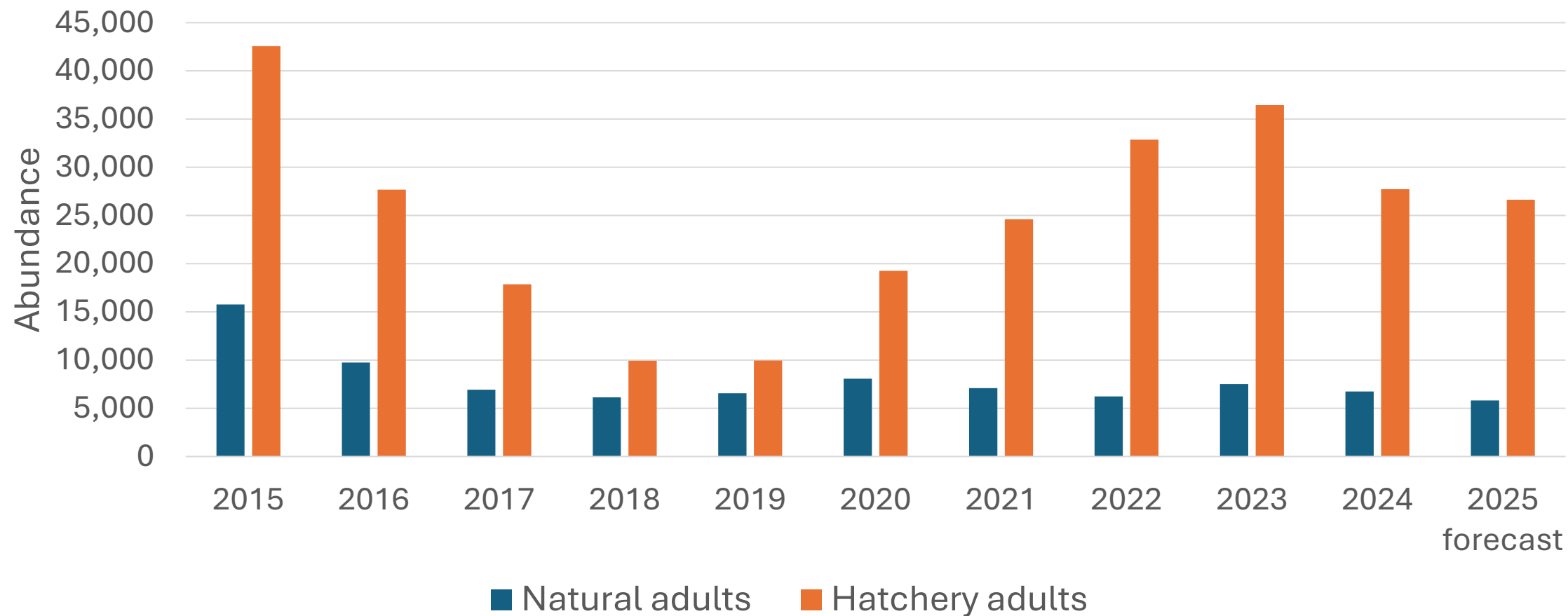


2025 Snake River Fall Chinook Return Forecast

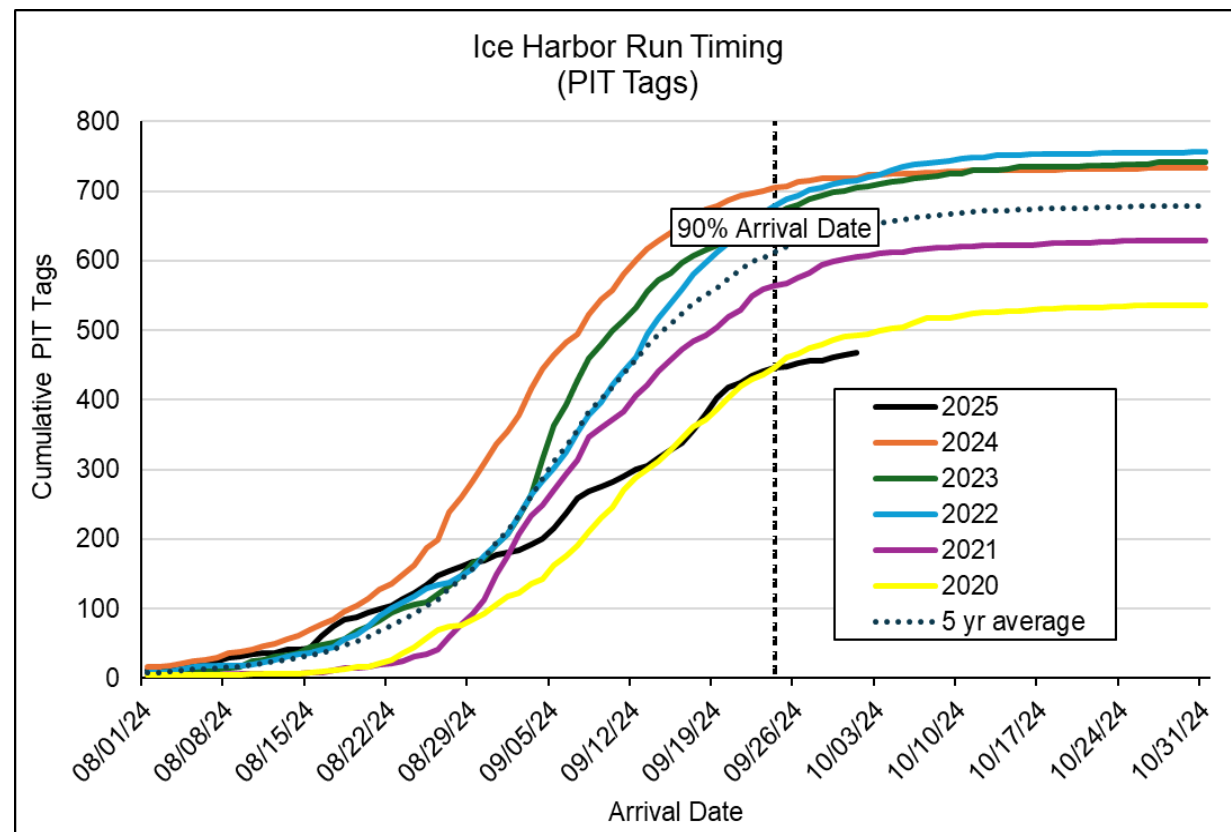
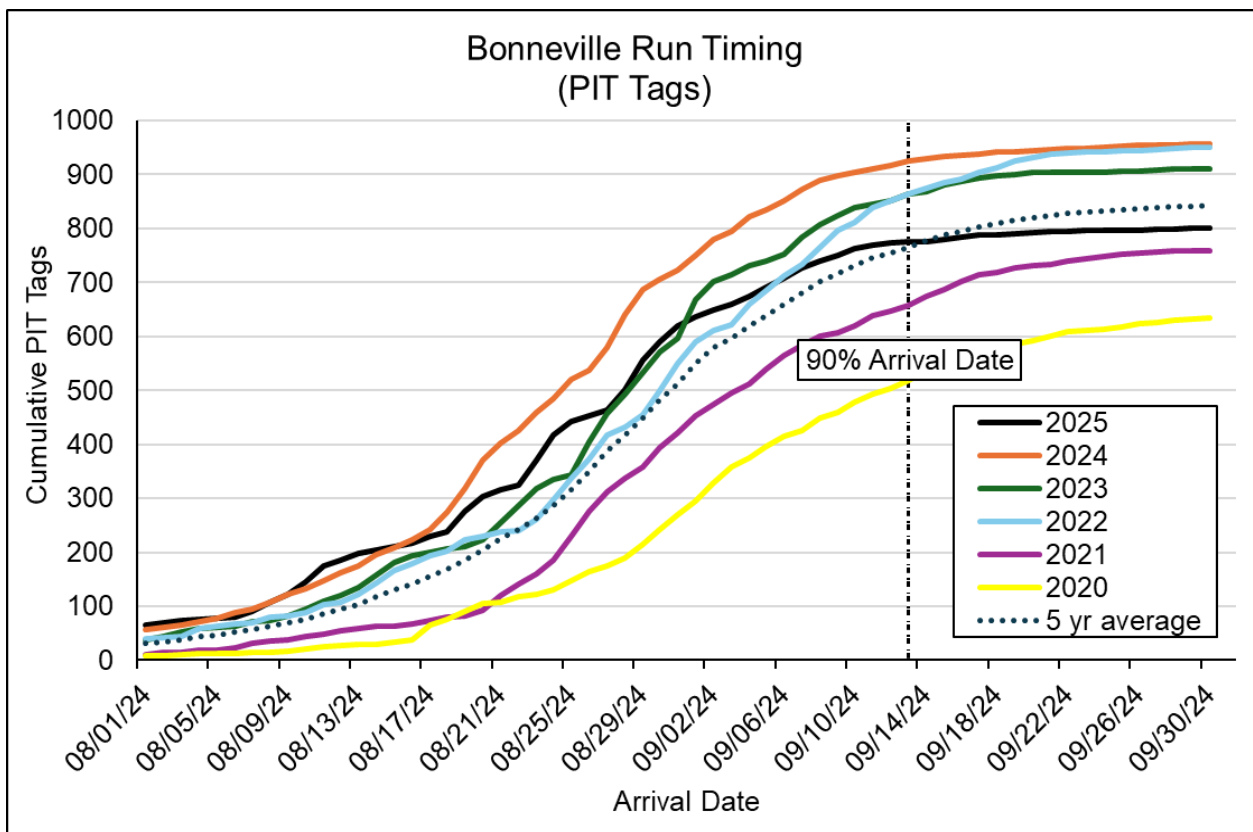
	2025 Forecast
Natural Adults	5,821
Hatchery Adults	26,644
Total Adults	32,465
Jacks (H + N)	4,100
Total	36,565

- Estimated using separate sibling regressions for hatchery and natural
- Similar to previous 4 years
- Harvest opportunities determined by natural adult abundance
 - <5,040 – 6% harvest impacts
 - > 5,040 – 10%+ harvest impacts

Hatchery and Natural Returns



Return Status



What is going on?!

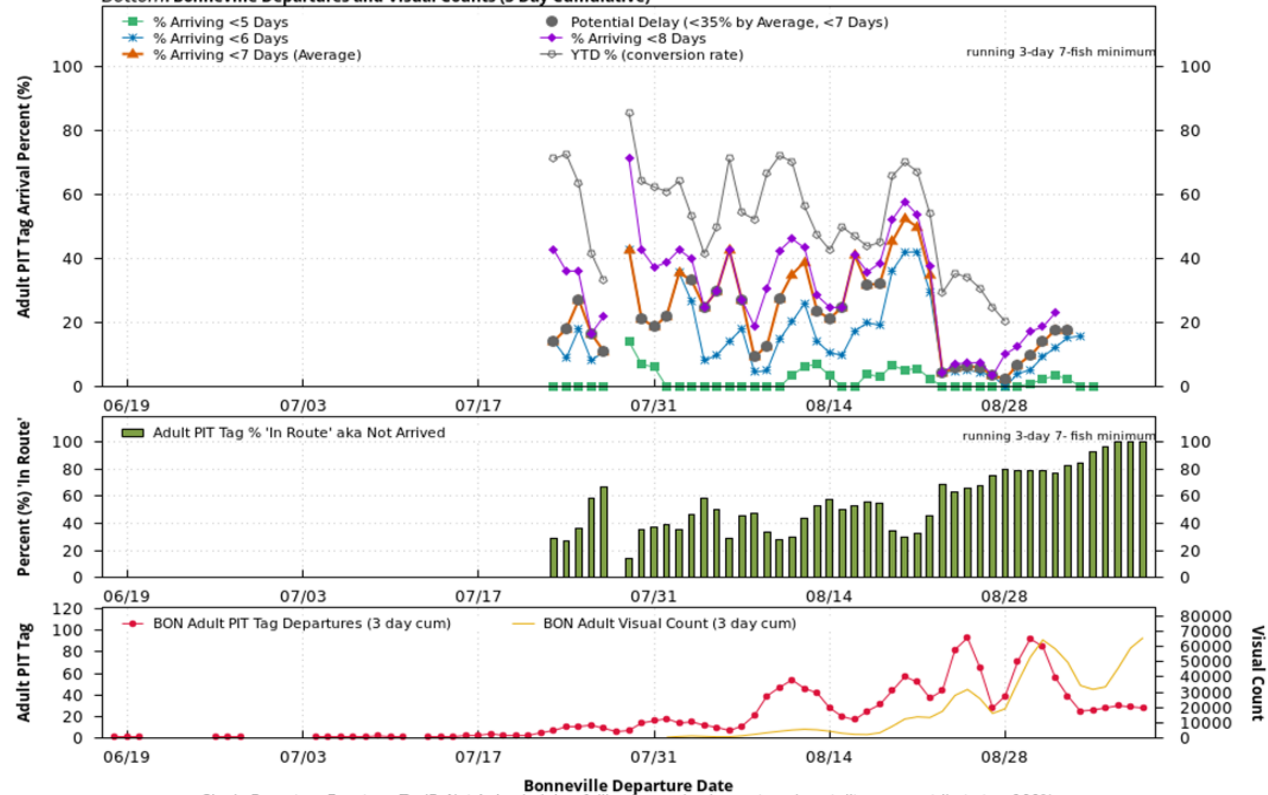
- Uncertainties
 - Conversion rate - Late or Dead?
 - Natural abundance = ????
 - Early return abundance?
- Some Certainty
 - Hatchery abundance = PIT tag expansions

Bonneville to McNary Dam – Travel time and conversions

2025

Running Cumulative 3-Day - Bonneville to McNary Travel Days and Run Size
2025 Adult PIT Tagged All Fall Chinook Released at/above Lower Granite
Unique TagIDs Departing Bonneville (556) through 09/08
YTD Conversion Rate 39.6, YTD Harmonic Mean Travel Time 6.7

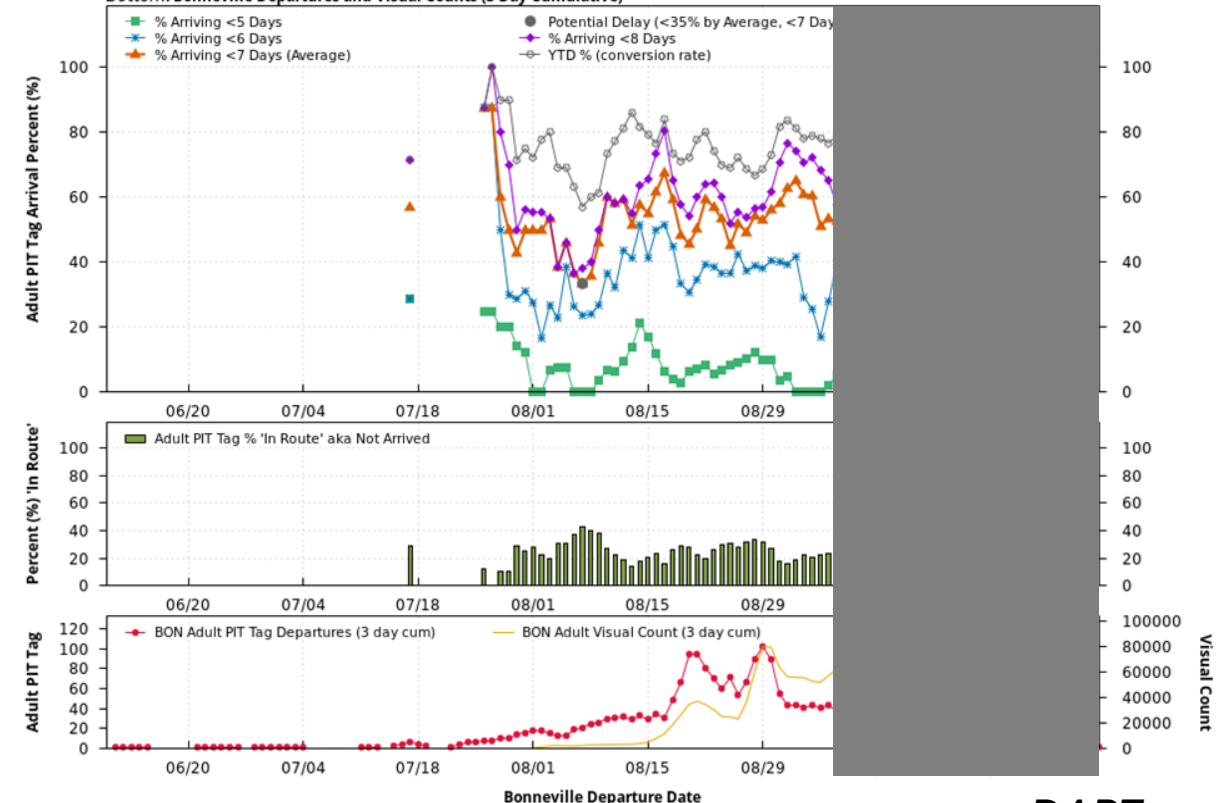
Top: Cumulative Arrival Percent by Days in Route to McNary by Bonneville Departure Date
Middle: Percent in Route to McNary by Bonneville Departure Date
Bottom: Bonneville Departures and Visual Counts (3 Day Cumulative)



2024

Running Cumulative 3-Day - Bonneville to McNary Travel Days and Run Size
2024 Adult PIT Tagged All Fall Chinook Released at/above Lower Granite
Unique TagIDs Departing Bonneville (688) through 11/30
YTD Conversion Rate 74.9, YTD Harmonic Mean Travel Time 5.8

Top: Cumulative Arrival Percent by Days in Route to McNary by Bonneville Departure Date
Middle: Percent in Route to McNary by Bonneville Departure Date
Bottom: Bonneville Departures and Visual Counts (3 Day Cumulative)

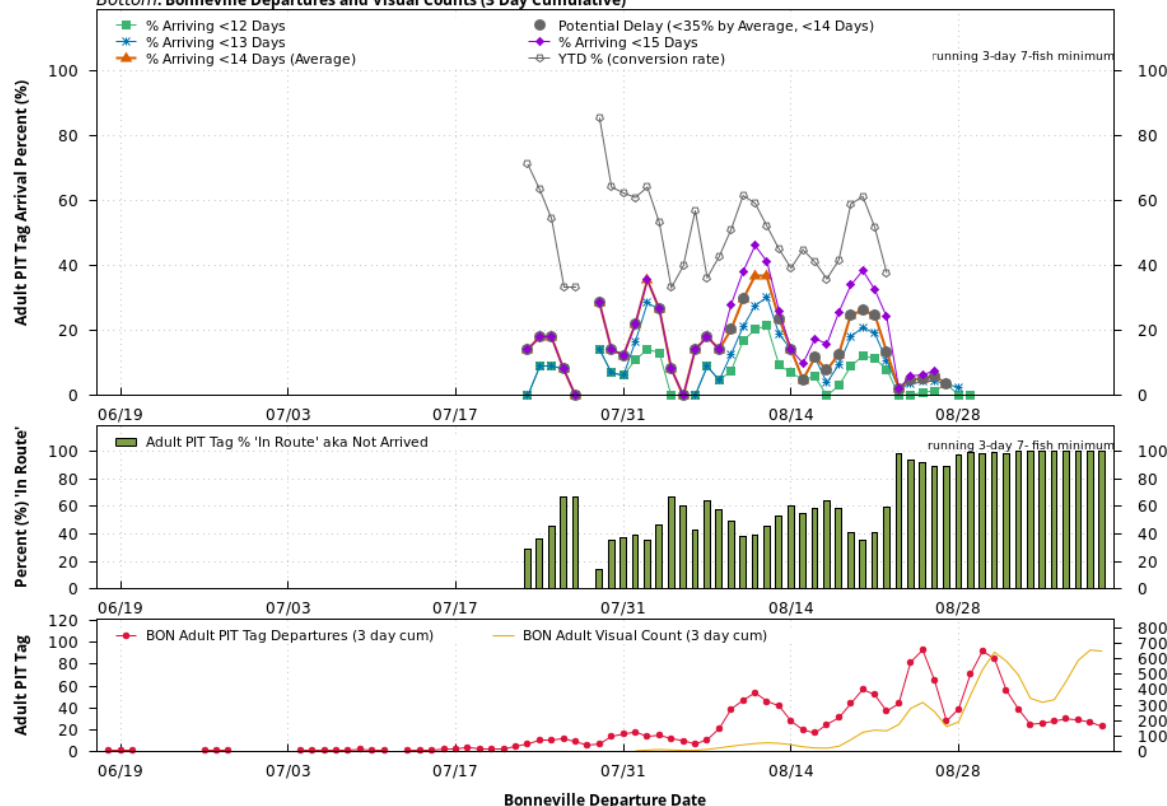


Bonneville to Lower Granite Dam – Travel time and conversions

2025

Running Cumulative 3-Day - Bonneville to Lower Granite Travel Days and Run Size
 2025 Adult PIT Tagged All Fall Chinook Released at/above Lower Granite
 Unique TagIDs Departing Bonneville (560) through 09/09
 YTD Conversion Rate 26.4, YTD Harmonic Mean Travel Time 14.5

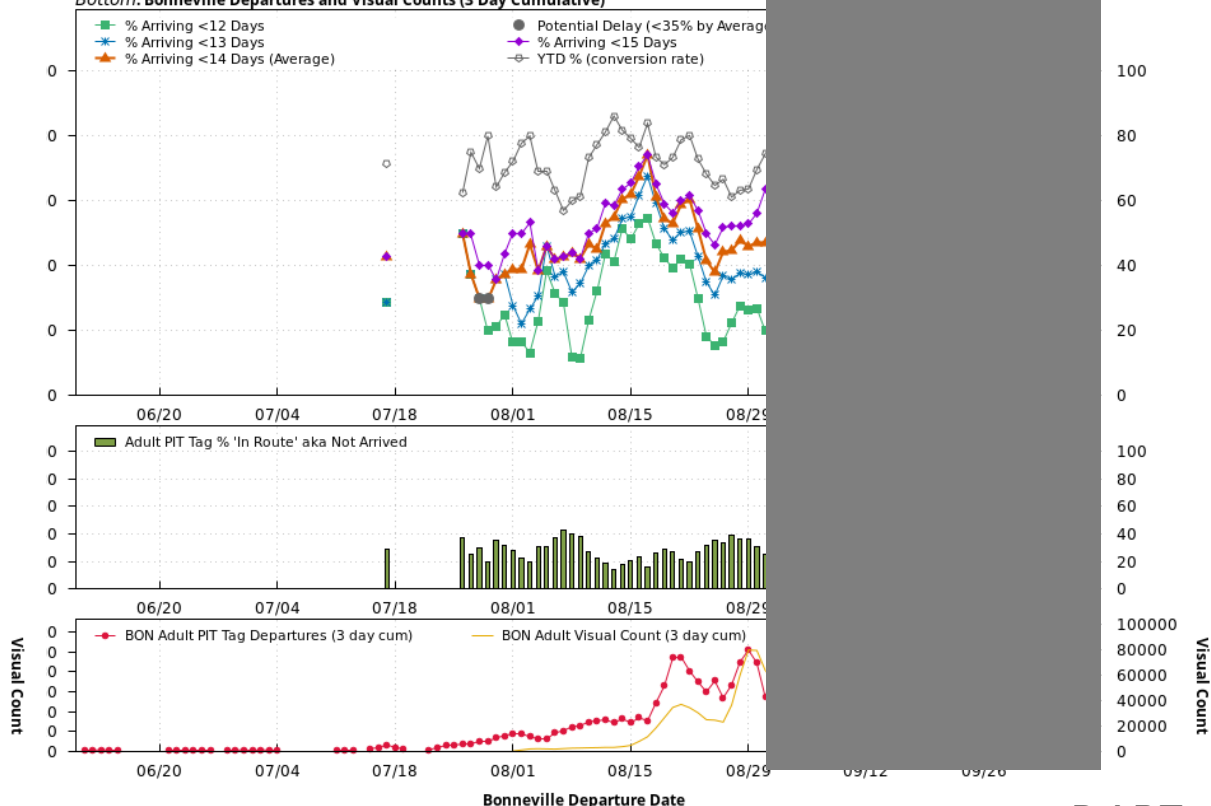
Top: Cumulative Arrival Percent by Days in Route to Lower Granite by Bonneville Departure Date
 Middle: Percent in Route to Lower Granite by Bonneville Departure Date
 Bottom: Bonneville Departures and Visual Counts (3 Day Cumulative)



2024

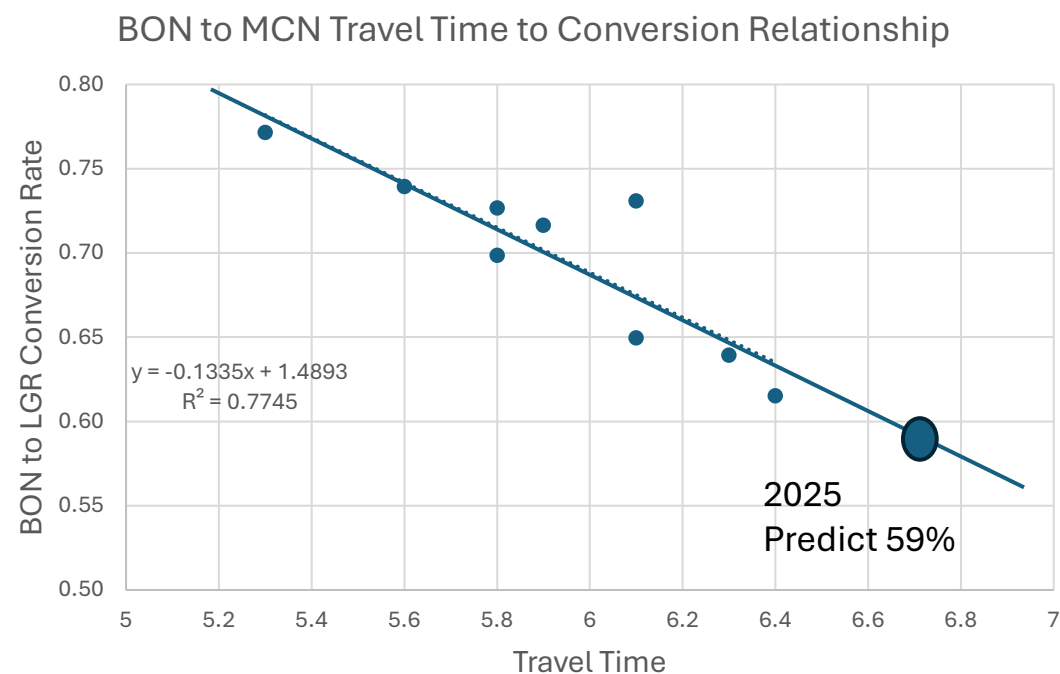
Running Cumulative 3-Day - Bonneville to Lower Granite Travel Days and Run Size
 2024 Adult PIT Tagged All Fall Chinook Released at/above Lower Granite
 Unique TagIDs Departing Bonneville (688) through 11/30
 YTD Conversion Rate 72.2, YTD Harmonic Mean Travel Time 12.1

Top: Cumulative Arrival Percent by Days in Route to Lower Granite by Bonneville Departure Date
 Middle: Percent in Route to Lower Granite by Bonneville Departure Date
 Bottom: Bonneville Departures and Visual Counts (3 Day Cumulative)



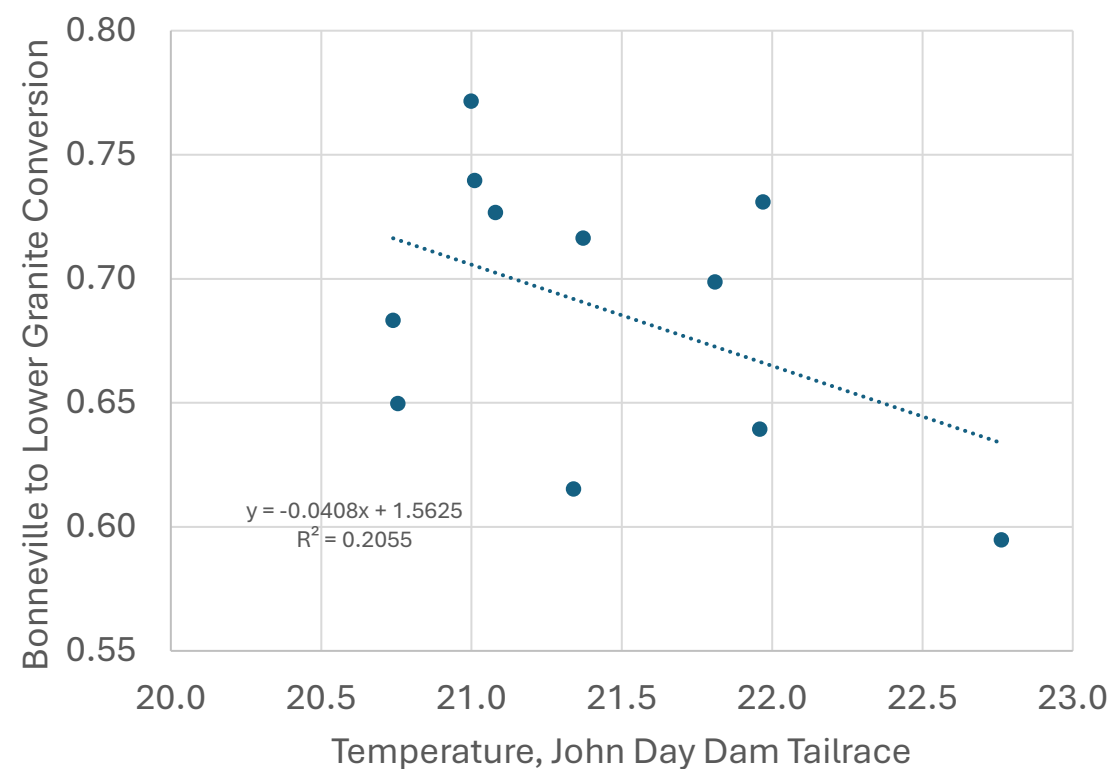
Conversion Rate and Travel Times

Return year	Travel Time	Conversion Rate
2024	0.73	0.73
2023	0.72	0.72
2022	0.70	0.70
2021	0.77	0.77
2020	0.74	0.74
2019	0.73	0.73
2018	0.68	0.68
2017	0.64	0.64
2016	0.62	0.62
2015	0.65	0.65
Ten-yr Average	0.70	0.70



Conversion Rates and Temperature

Return year	BON to LGR Conversion Rate	John Day Tailrace Temperature
2015	0.65	20.8
2016	0.62	21.3
2017	0.64	22.0
2018	0.68	20.7
2019	0.73	22.0
2020	0.74	21.0
2021	0.77	21.0
2022	0.70	21.8
2023	0.72	21.4
2024	0.73	21.1

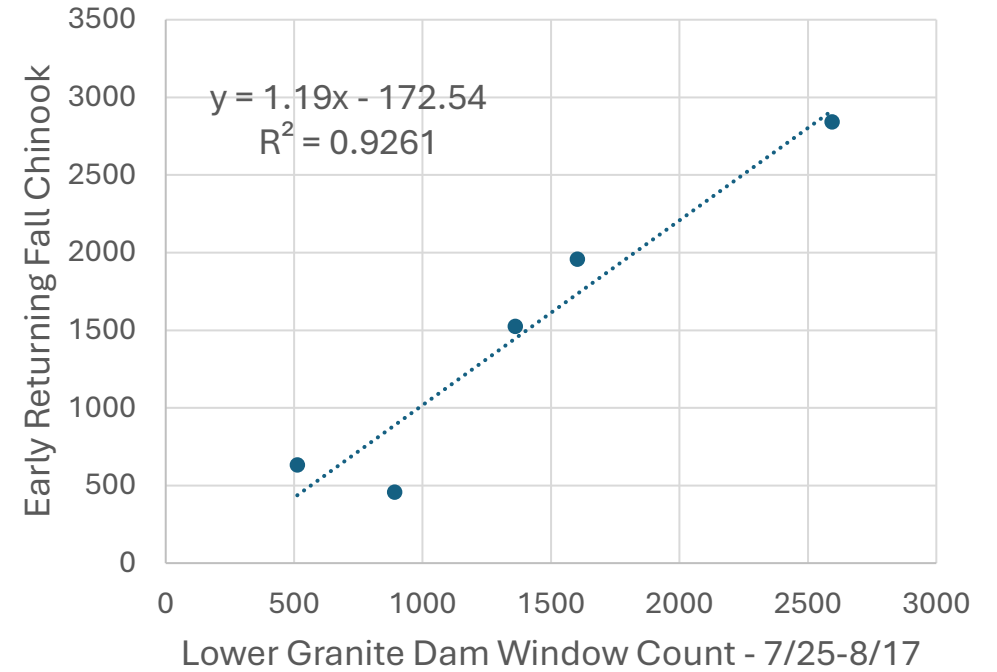
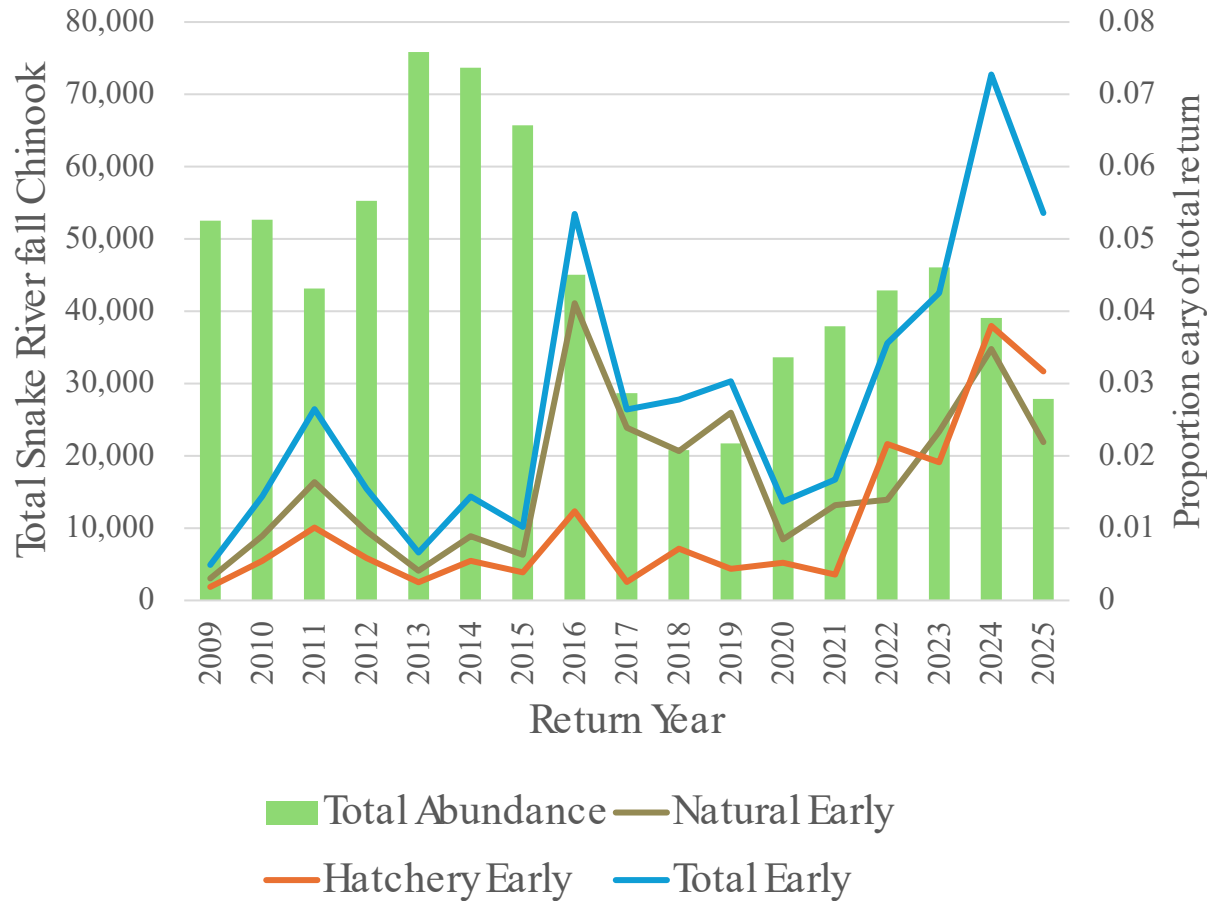


Natural Origin Abundance???

	2025 Forecast
Natural Adults	5,821
Hatchery Adults	26,644
Total Adults	32,465
Jacks (H + N)	4,100
Total	36,565

- Estimated by the proportion of natural origin fish in the preseason forecast
 - $5,821/32,465 = 17.9\%$

Early Return Abundance – prior to Aug 18



Estimate = 1,584
681 Hatchery
903 Natural

Management Decision Input Data

- Less Uncertain?

- Conversion rate – 59% Actual = 57%
- Early return abundance – 1589 (903 Natural) Actual = 1,493 (610)

- Still Uncertain

- Natural abundance - 17.9% Actual = 17%
- Final Natural origin abundance estimate - >5,040 Actual = 4,498

What if 2025 conversions were average?

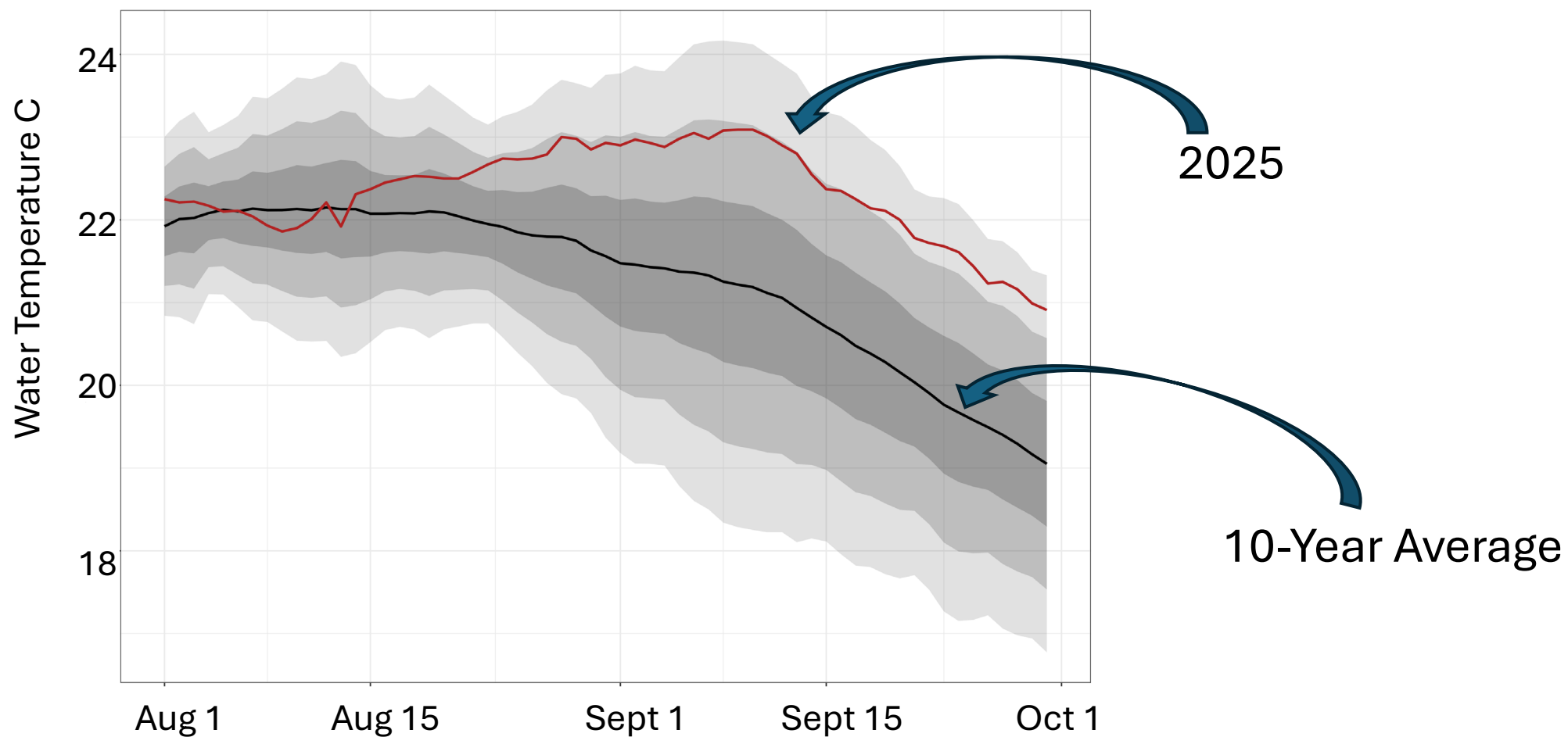
	2025 Forecast	2025 Actual	Difference	Adult Return 70% Conversion
Natural Adults	5,821	4,498	-0.23	5,565
Hatchery Adults	26,644	21,404	-0.20	25,635
Total Adults	32,465	25,902	-0.20	31,560

Impacts to the 2026 Returns

	2026 Forecast Observed conversion rate (57%)	2026 Forecast average conversion rate
Natural Adults	5,307	6,590
Hatchery Adults	20,885	25,635
Total Adults	26,255	32,225

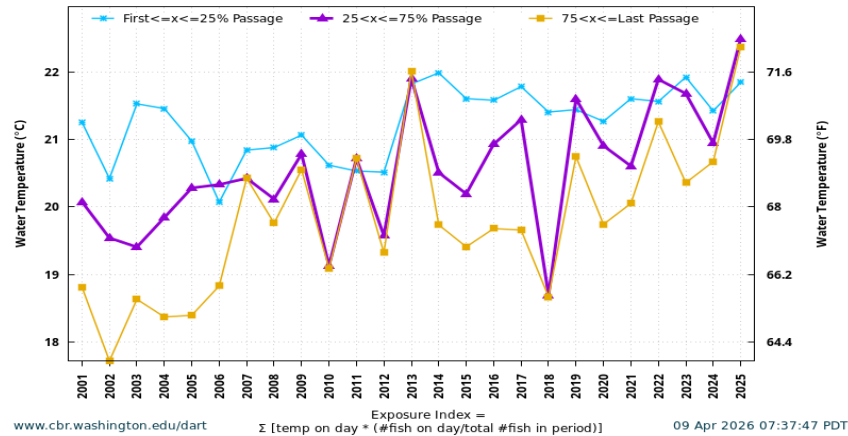
How warm was it?

2025 John Day Tailrace Temperatures

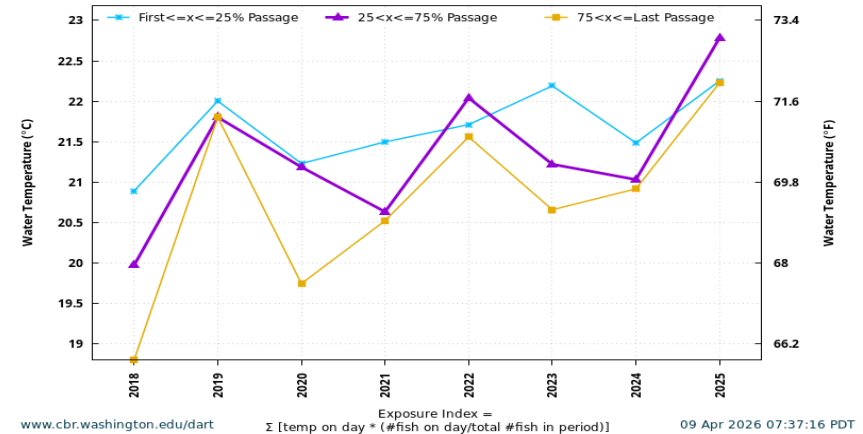


2025 Fish Impacts – Water Temperature Exposure Index

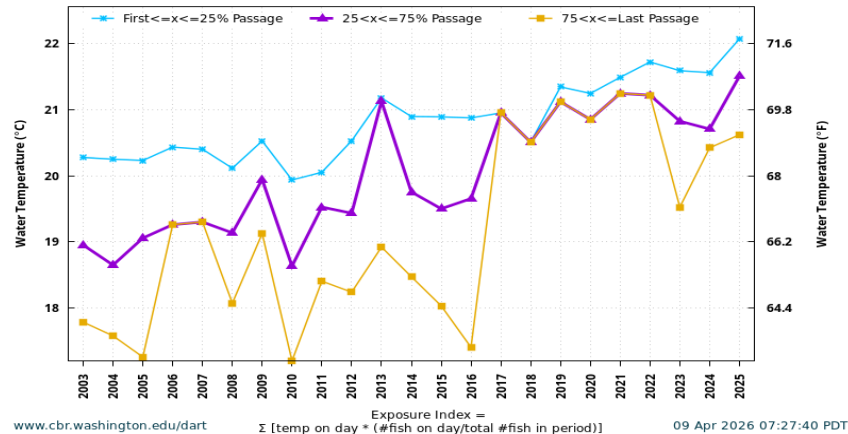
Bonneville Dam



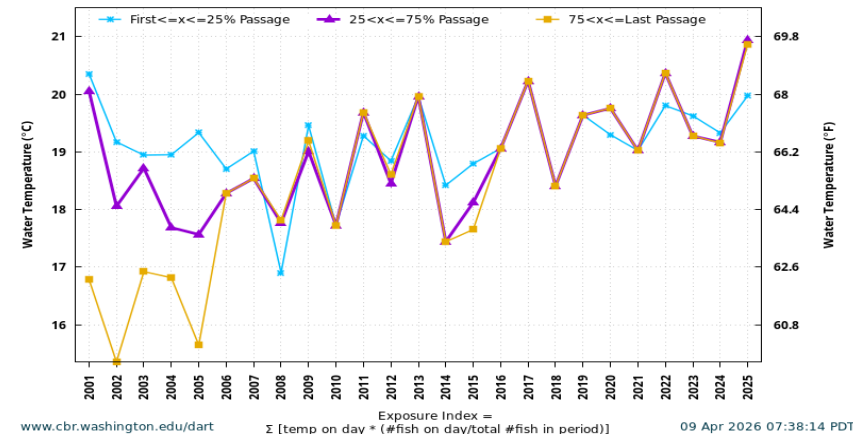
John Day Dam



Ice Harbor Dam



Lower Granite Dam

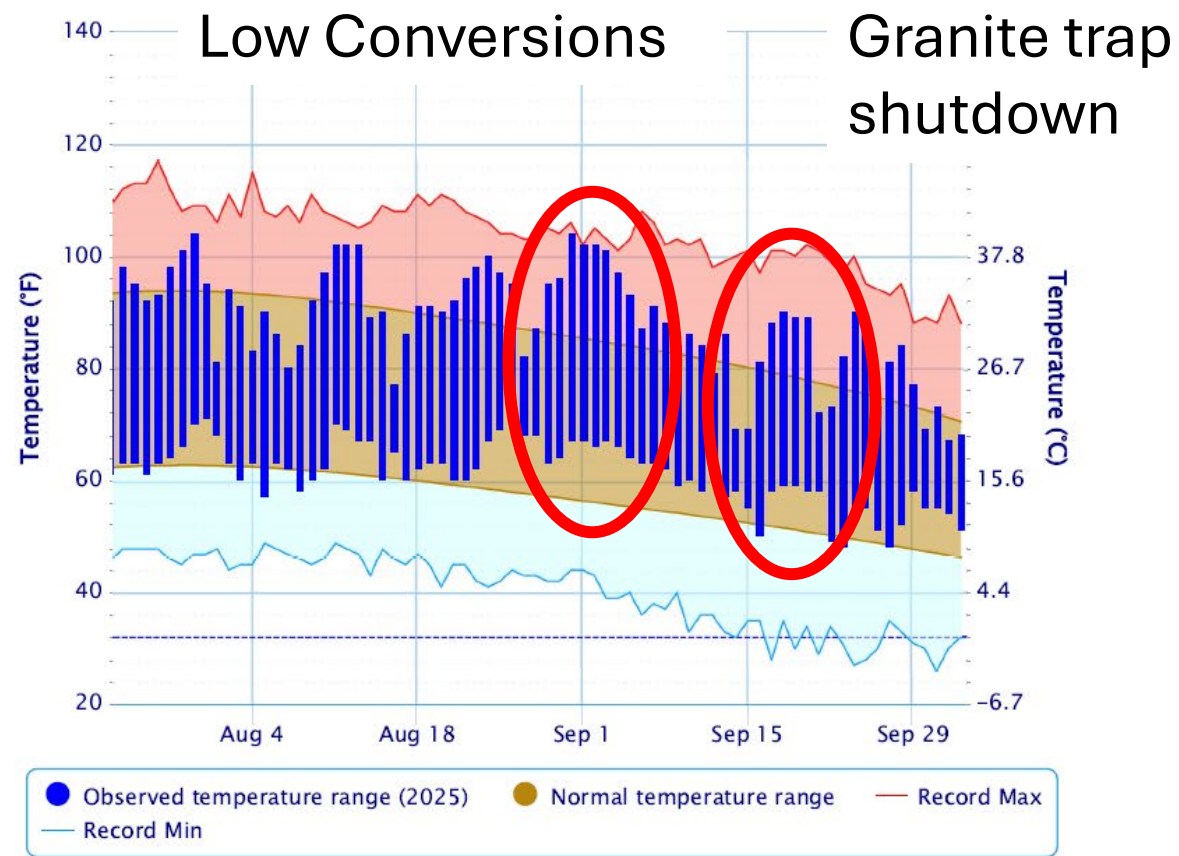




4/9/26, 10:14 AM

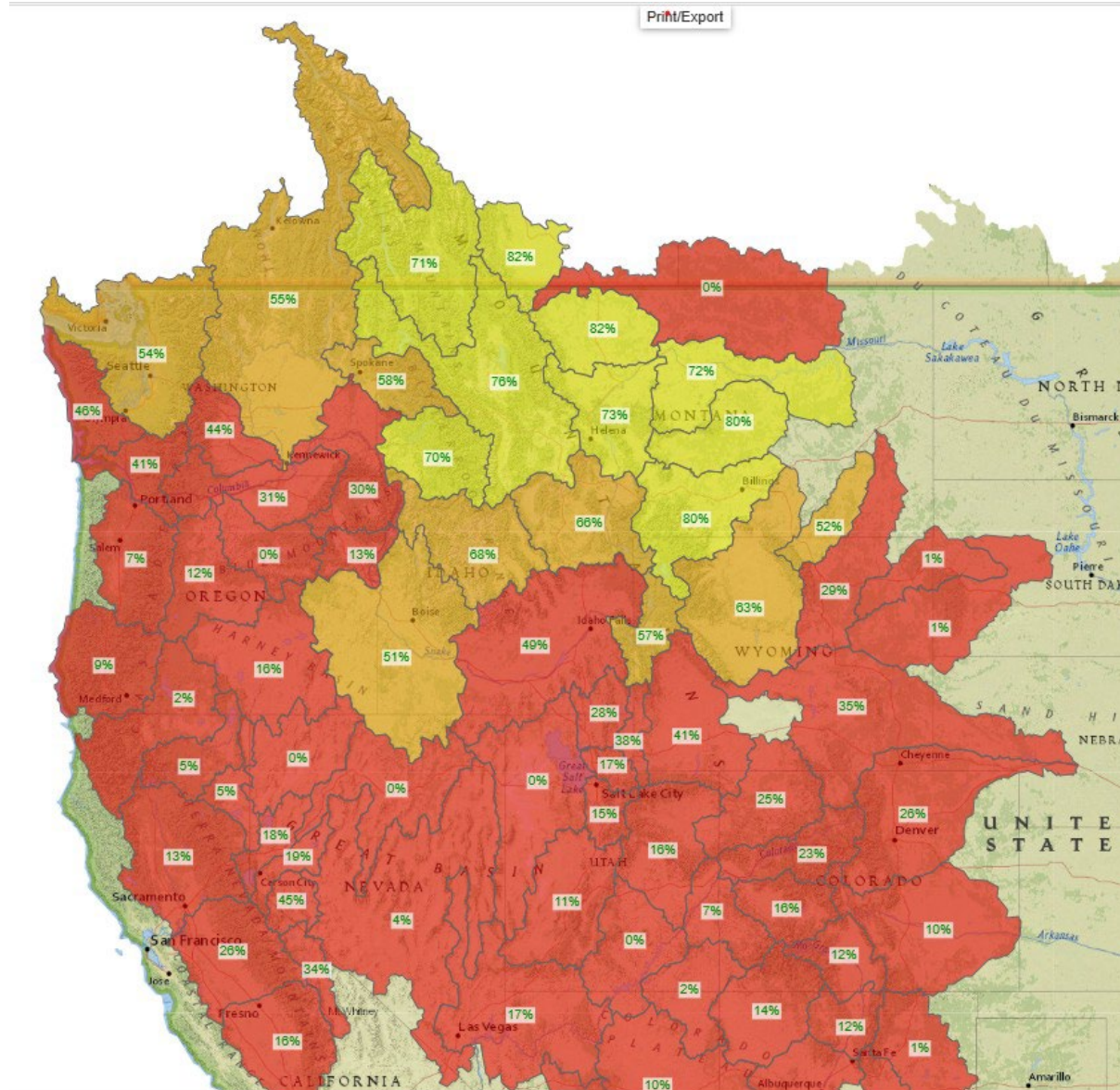
NOWData Results

Daily Temperature Data – Lewiston Area, ID (ThreadEx)



Powered by ACIS

Spokane NWS



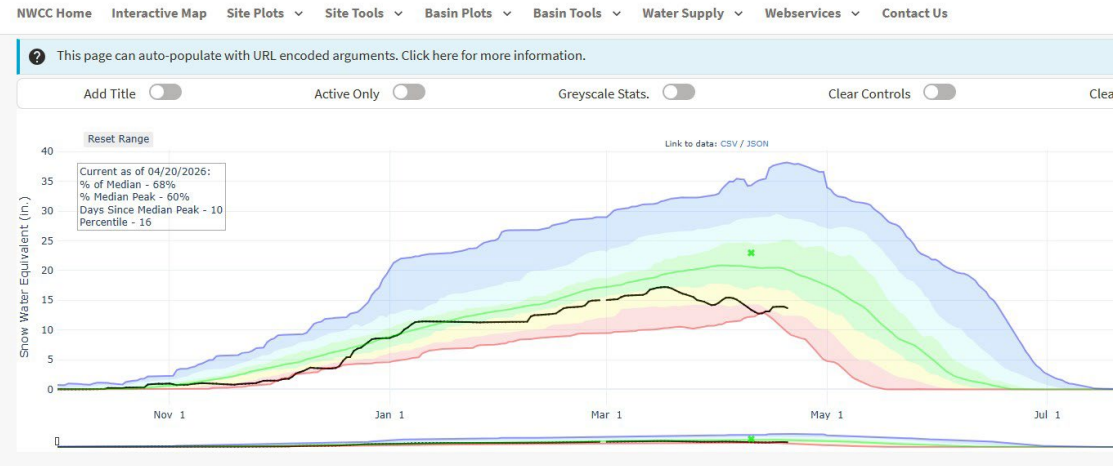
Current
Conditions!

Western US
Snow Water
Equivalent

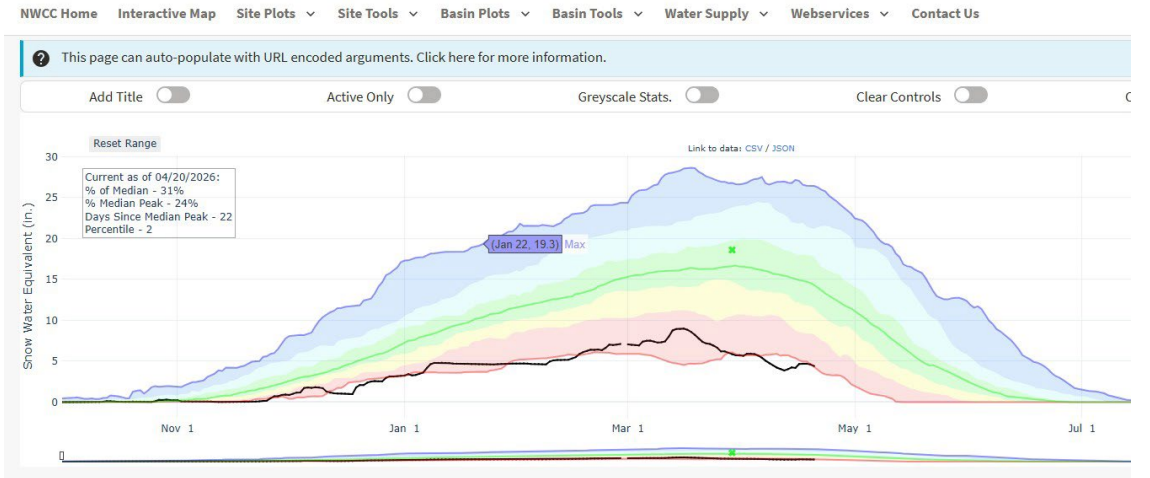
<https://nwcc-apps.sc.egov.usda.gov/>

2026 Climatology

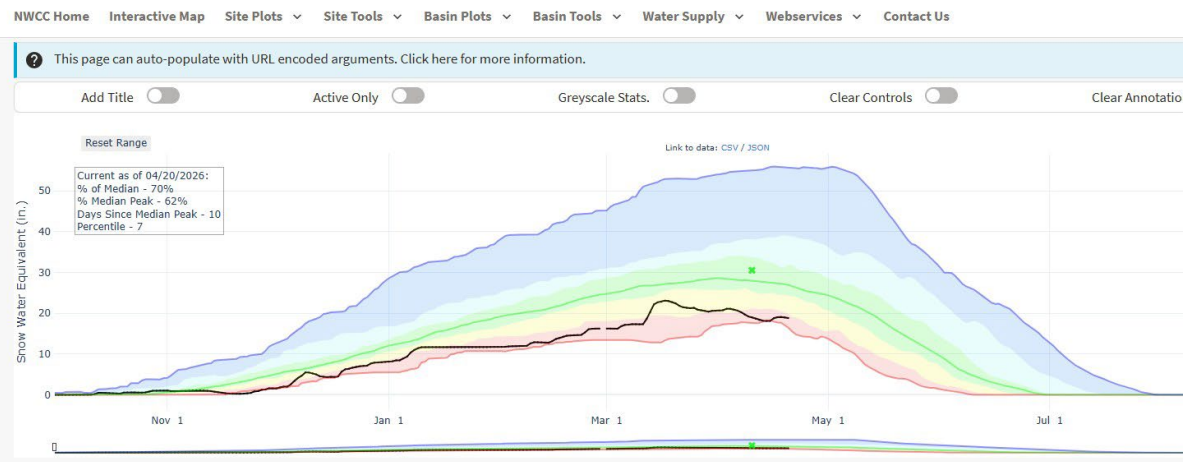
AWS Plot | SNOW WATER EQUIVALENT IN SALMON



AWS Plot | SNOW WATER EQUIVALENT IN LOWER SNAKE



AWS Plot | SNOW WATER EQUIVALENT IN CLEARWATER



<https://nwcc-apps.sc.egov.usda.gov/>

2026 Climatology

City	Years of Data	RANKS			Notes
		Temperature	Precipitation	Snowfall	
Missoula	132	2	12	122	8 record highs
West Glacier MT	73	1	19	71	8 record highs
Salmon ID	58	2	35	42	14 record highs; record Dec temp of 60 F
Pierce ID	62	1	12	59	17 record highs; record Dec temp of 53 F

