



# Pacific States Marine Fisheries Commission

## Bonneville Smolt Monitoring Weekly Report, #24-28

Report Period: 9/7 – 9/13, 2024

Project Manager: Allan Martin

Prepared By: Dean Ballinger

### SECTION 1. River Flow and Sampling Results

#### WEEK 28

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	79.6	98.1	87.1	104.1	81.0
B. Powerhouse 1	8.2	9.4	8.6	8.3	32.8
C. Powerhouse 2	62.5	80.4	69.6	73.7	39.4
D. Spill (kcfs)	1.5	4.6	1.9	15.5	1.4
% of River Flow	1.5	5.3	2.2	13.2	1.7
E. Water Temp *	68.7	70.5	69.9	69.7	68.8
F. % Saturation *					

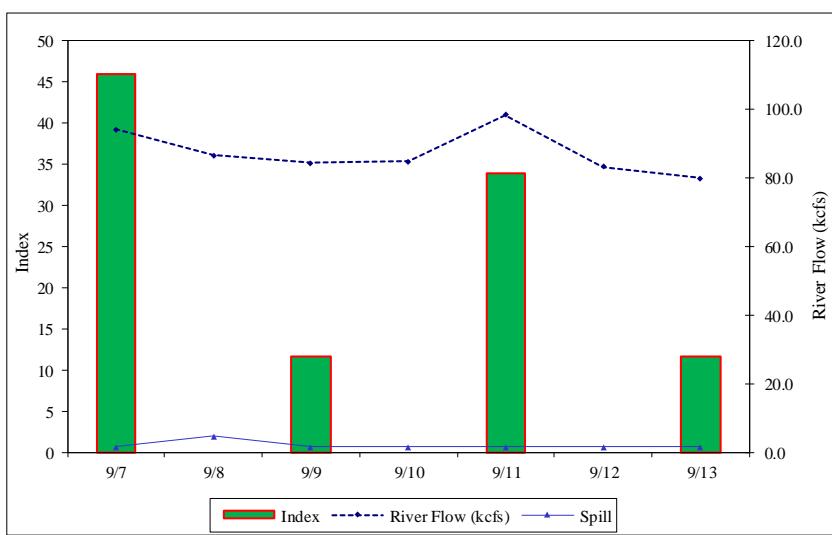
\* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	0.0%	0.0%
SUBYEARLING CHINOOK	100.0%	100.0%
CHINOOK FRY	0.0%	0.0%
UNCLIPPED STEELHEAD	0.0%	0.0%
CLIPPED STEELHEAD	0.0%	0.0%
COHO	0.0%	0.0%
COHO FRY	0.0%	0.0%
SOCKEYE	0.0%	0.0%

YEARLING CHINOOK							SUBYEARLING CHINOOK							COHO						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index				
9/7	5.0%	0	0.0	0.0	0	0	2	0.0	0.0	40	46	0	0.0	0.0	0	0				
9/8	5.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
9/9	5.0%	0	0.0	0.0	0	0	1	0.0	0.0	10	11	0	0.0	0.0	0	0				
9/10	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
9/11	10.0%	0	0.0	0.0	0	0	3	0.0	0.0	30	34	0	0.0	0.0	0	0				
9/12	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
9/13	10.0%	0	0.0	0.0	0	0	1	0.0	0.0	10	12	0	0.0	0.0	0	0				
Weekly		0	0.0	0.0	0	0	7	0.0	0.0	90	103	0	0.0	0.0	0	0				
Season to date		14,439	2.6	0.6	615,017	2,468,619	23,107	0.9	1.5	623,746	1,746,460	3,012	1.1	0.5	138,748	553,457				

UNCLIPPED							STEELHEAD							CLIPPED							SOCKEYE						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index						
9/7	5.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/8	5.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/9	5.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/10	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/11	10.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/12	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
9/13	10.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
Weekly		0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
Season to date		368	0.3	0.5	15,750	59,527	1,210	1.3	0.2	71,514	296,645	893	5.6	2.2	50,456	175,565											

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
9/7	5.0%	2	0.0	0.0	40	46
9/8	5.0%	0	0.0	0.0	0	0
9/9	5.0%	1	0.0	0.0	10	11
9/10	0.0%	0	0.0	0.0	0	0
9/11	10.0%	3	0.0	0.0	30	34
9/12	0.0%	0	0.0	0.0	0	0
9/13	10.0%	1	0.0	0.0	10	12
Weekly		7	0.0	0.0	90	103
Season to date		43,029	1.6	1.1	1,515,231	5,300,274



Notes: Condition percentages are calculated from sample numbers.  
Subyearling chinook and coho include fry.

## **SECTION 2. Juvenile Lamprey Sampling Results**

Juvenile lamprey are differentiated by species (Pacific or Western Brook lamprey) and by life stage (Macrophthalmia, the fully formed actively migrating juvenile, and Ammocoete, the blind, filter feeding larval stage). Weekly results and season to date totals are presented in the table below:

Macrophthalmia			Ammocoetes			Western Brook Ammocoetes		
End Date	# Smpld	% Mort	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
9/7	0	0.0	0	0	0.0	0	0	0
9/8	0	0.0	0	0	0.0	0	0	0
9/9	0	0.0	0	0	0.0	0	0	0
9/10	0	0.0	0	0	0.0	0	0	0
9/11	0	0.0	0	0	0.0	0	0	0
9/12	0	0.0	0	0	0.0	0	0	0
9/13	0	0.0	0	0	0.0	0	0	0
Weekly	0	0.0	0	0	0.0	0	0	0
Season to date	202	2.5	3,046	7	0.0	46	0	0

### **SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary**

## Smolt Condition

## WEEK 28

Subyearling	DESCALING				INJURY					Other Conditions			
	SAMPLE #	3-19%	>20%	Pred. Desc.	BODY	EYE	HEAD	OP	FIN	POPEYE	PINK FIN	Fin Discolor.	FIN HEM
Chinook													
This Week	6												
Last Week	27										3.7%		

SAMPLE #	DISEASE					PREDATION					
	Columnaris	FUNGUS	BKD	PARASITES	DEFORMITY	EYE	HEM	BIRD	FISH	LAMPREY	OTH
6											
27					7.4%					3.7%	

## Juvenile Lamprey Condition

Week 28			INJURY						DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophtalmia	End Date	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN HEM	Columnaris	FUNGUS	DEFORMITY	EYE HEM.	BIRD	FISH	
	This Week	9/13	0												
	Last Week	9/6	0												
AP - Ammocoetes		SAMPLE #													
	This Week	9/13	0												
	Last Week	9/6	1					100.0%							

## SECTION 4. Incidental Summary

### **Week 28**

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	1	0	1	0	0	0	0
Season to Date	0	67	11	8	4	1	0	0
	Dace - Longnose	Dace - Speckled	Chinook Jack	Kokanee	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week	0	0	0	0	0	0	8	0
Season to Date	0	0	1	0	2	18	1,212	83
	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	2	1	0	4	112,914	0
Season to Date	1	0	46	52	4	280	632,983	0
	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn		Other/Not Listed
This Week	0	0	0	0	0	0	0	0
Season to Date	0	0	0	0	0	188	0	59

\*Other/Not Listed Season-to-Date totals include: 52 Banded killifish and seven Pink salmon fry.

## SECTION 5. PIT Tag Summary

### **Bonneville season to date detections, 2024.**

Migration Year	Chinook	Coho	Steelhead	Sockeye	Cutthroat	Pacific Lamprey	Other	Orphan/ Unknown	Grand Total
2020			2				1		3
2021	5		41				1		47
2022	6		103	1			2		112
2023	698	9	697				1		1,405
2024	40,432	3,350	19,243	2,408	7		6	5,213	65,446
Grand Total	41,141	3,359	20,086	2,409	7	0	11	5,213	72,226

## SECTION 6. Facility Operations

Sample collections at the Smolt Monitoring Facility (SMF) began at 0700 on 2 March. Debris at the primary dewatering structure (PDS) and fish/debris separator was light to moderate this week consisting mostly of aquatic macrophytes and a few sticks. The Outfall hydro-cannons are operating.

Higher temperature sampling protocols (every-other-day sampling) were re-initiated on 9 September (sample end-date of 10 September) when river temperatures at Bonneville ascended to 70°F. Modified sampling lasted for a brief period as Normal sampling operations resumed on 12 September (Sample end-date of 13 September) when average daily forebay temperatures descended to 69.5°F.

Spill and corner collector operations for the juvenile fish passage season concluded just after midnight on 1 September.

Gas Bubble Trauma (GBT) examinations have concluded for the season. Please follow this link: <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further details.

Truck releases of summer/fall out-migrants originating from Little Goose and Lower Granite dams began at Bonneville on 3 August and occur every other day.

Fallbacks observed this week: seven salmon.

## **SECTION 7. Research**

No Pacific Lamprey macrophtalmia or ammocoetes were sampled at the Bonneville Smolt Monitoring Facility during this report week.

## **SECTION 8. Facility Water Temperatures**

