

Pacific States Marine Fisheries Commission

John Day Dam Condition Monitoring Weekly Report, #23-6

Report Period: 5/6 – 5/12, 2023

Project Manager: Allan Martin

Prepared By: Gregory Kovalchuk and Aaron Young



SECTION 1. River Flow and Sampling Results

	Min	Max	Mean		
			Current	Last Week	2022
A. River Flow	319.3	356.2	335.5	286.5	230.2
B. Powerhouse 1	79.3	163.0	131.2	93.6	124.2
C. Spill (kcfs)	161.9	238.8	203.1	191.6	104.9
% of River Flow	49.6	74.8	60.6	67.9	45.2
D. Water Temp *	54.1	55.2	54.5	53.8	53.1
E. % Saturation *	114.2	124.0	119.8	119.9	107.6

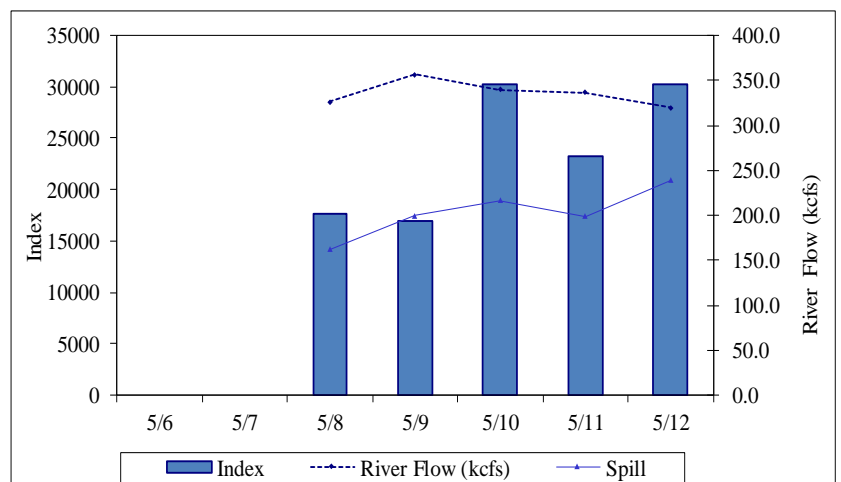
* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

% SAMPLE COMPOSITION		This Week	Last Week
YEARLING CHINOOK		52.0%	51.0%
SUBYEARLING CHINOOK		0.0%	0.1%
CHINOOK FRY		0.5%	0.1%
UNCLIPPED STEELHEAD		6.2%	8.4%
CLIPPED STEELHEAD		35.5%	36.5%
COHO		3.6%	3.8%
COHO FRY		0.0%	0.0%
SOCKEYE		2.2%	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
5/6																
5/7																
5/8	2.2%	76	0.0	0.0	3,475	6,927	0	0.0	0.0	0	0	7	0.0	0.0	350	698
5/9	2.5%	99	2.0	0.0	3,925	8,984	1	0.0	0.0	50	114	15	6.7	0.0	575	1,316
5/10	1.9%	101	3.0	0.0	5,300	14,704	1	0.0	0.0	50	139	7	14.3	0.0	400	1,110
5/11	2.0%	97	0.0	1.0	4,850	11,898	1	0.0	0.0	50	123	4	0.0	0.0	200	491
5/12	2.0%	105	1.9	1.0	5,250	21,060	2	0.0	0.0	100	401	0	0.0	0.0	0	0
Weekly		478	1.5	0.4	22,800	63,572	5	0.0	0.0	250	777	33	6.1	0.0	1,525	3,614
Season to date		2,714	1.8	0.3	37,868	105,561	27	0.0	3.7	389	1,125	67	4.5	0.0	2,739	7,112

End Date	Sample Rate	UNCLIPPED					STEELHEAD					CLIPPED					SOCKEYE				
		# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
5/6																					
5/7																					
5/8	2.2%	11	0.0	0.0	525	1,046	94	2.1	0.0	4,400	8,770	3	33.3	0.0	75	149					
5/9	2.5%	16	0.0	0.0	600	1,373	53	0.0	0.0	2,175	4,978	1	0.0	0.0	50	114					
5/10	1.9%	11	10.1	0.0	600	1,665	79	2.5	0.0	4,300	11,930	5	0.0	0.0	250	694					
5/11	2.0%	15	0.0	0.0	750	1,840	67	6.0	0.0	3,350	8,218	5	0.0	0.0	250	613					
5/12	2.0%	4	0.0	0.0	200	802	34	2.9	0.0	1,700	6,819	6	0.0	0.0	300	1,203					
Weekly		57	3.5	0.0	2,675	6,727	327	2.8	0.0	15,925	40,716	20	5.0	0.0	925	2,774					
Season to date		188	2.1	0.0	5,346	14,254	671	3.7	0.0	28,215	74,376	20	5.0	0.0	925	2,774					

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
5/6						
5/7						
5/8	2.2%	191	1.6	0.0	8,825	17,590
5/9	2.5%	185	1.6	0.0	7,375	16,880
5/10	1.9%	204	3.9	0.0	10,900	30,241
5/11	2.0%	189	2.1	0.5	9,450	23,182
5/12	2.0%	151	2.0	0.7	7,550	30,286
Weekly		920	2.3	0.2	44,100	118,180
Season to date		3,687	2.3	0.2	75,482	205,203



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

Pacific Lamprey							Western Brook		
Macrophthalmia				Ammocoetes			Ammocoetes		
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
5/6									
5/7									
5/8	1	0.0	50	0	0.0	0	0	0	0
5/9	0	0.0	0	0	0.0	0	0	0	0
5/10	0	0.0	0	0	0.0	0	0	0	0
5/11	0	0.0	0	0	0.0	0	0	0	0
5/12	1	0.0	50	0	0.0	0	0	0	0
Weekly	2	0.0	100	0	0.0	0	0	0	0
Season to date	181	0.0	683	104	0.0	465	0	0	0

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

		Yearling Chinook		Subyearling Chinook		Unclipped Steelhead		Clipped Steelhead		Coho		Sockeye	
		This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week
SAMPLE #		476	387	0	1	57	64	327	277	33	29	20	0
DESCALING	3-19%	6.3%	4.4%			1.8%	1.6%	4.3%	7.2%	12.1%	10.3%	5.0%	
	>20%	0.6%	0.8%						0.7%	3.0%			
	Pred. Desc.	0.8%	2.6%			3.5%		2.8%	3.6%	3.0%	3.4%	5.0%	
INJURY	BODY	0.6%	1.6%					0.3%	1.8%				
	EYE	0.2%							0.4%				
	HEAD							0.3%	1.1%				
	OPERC.	0.8%	0.3%				1.6%	1.8%	0.4%			5.0%	
	FIN	1.5%	0.5%			1.8%		0.9%	0.7%	3.0%		10.0%	
OTHER CONDITIONS	POPEYE		0.3%										
	PINK FIN												
	Fin Discolor.												
DISEASE	FIN HEM.	0.8%	1.6%					0.3%	0.4%				
	Columnaris	0.2%						0.3%	0.4%				
	FUNGUS	1.9%	11.6%					1.2%	2.9%				
	BKD	0.8%	2.6%										
	PARASITES	0.2%	0.3%			8.8%	4.7%	0.3%	0.4%				
	DEFORMITY		0.3%										
PREDATION	EYE HEM.	0.4%	0.8%					0.9%	0.7%			5.0%	
	BIRD	1.5%	2.8%			3.5%	1.6%	8.3%	7.9%	6.1%	6.9%		
	FISH	1.1%	2.3%			1.8%		0.9%	0.4%	3.0%	3.4%	5.0%	
	LAMPREY												
OTHER													
end dates		5/12	5/5										

			INJURY					DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophthalmia	End Date	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN HEM	Columnaris	FUNGUS	DEFORMITY	EYE HEM.	BIRD	FISH
This Week	5/12	2												
Last Week	5/5	4											25.0%	
AP - Ammocoetes		SAMPLE #												
This Week	5/12	0												
Last Week	5/5	3						33.3%						

SECTION 3. Incidental Summary

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	0	0	0	0	0	0	0
Season to Date	0	3	5	0	2	1	0	7

	Dace - Longnose	Dace - Speckled	Chinook Jack	Kokanee	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week	0	0	0	0	0	0	0	1
Season to Date	0	0	0	0	0	0	0	60

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	0	0	0	0
Season to Date	0	0	10	4	0	0	0	0

	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn	Chum Salmon	Banded Killifish
This Week	0	0	0	0	0	2	0	1
Season to Date	0	0	0	21	0	162	0	1

SECTION 4. Facility Operations

Condition Monitoring at John Day Dam is scheduled to sample Monday through Friday until early June. Samples will be taken from the Juvenile Bypass System between 0700 and 1300 hrs. and the Condition Exams will target approximately 100 of the predominant species of out-migrant, which is transitioning from Yearling Spring Chinook last week to Steelhead smolt this week. Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars was high for the week which coincided with higher river flows and extremely turbid water. Debris consisted of sticks, tumbleweeds, pieces of terrestrial vegetation, and plastic.

SECTION 5. Research

Genetic fin clip samples were taken from 2 Pacific Lamprey macrophthalmia and 0 Pacific Lamprey ammocoetes for the Columbia River Inter-Tribal Fish Commission during this report period.

SECTION 6. Pictures



Sockeye smolt (*Oncorhynchus nerka*), approximately 165 mm fork length, similar to one sampled at the John Day Dam Smolt Facility on May 8, 2023. This example illustrates the very small parr marks, widely spaced, on or above the lateral line, which is an identification characteristic for sockeye smolt.



Banded Killifish (*Fundulus diaphanus*), approximately 75 mm fork length, similar to one sampled at the John Day Dam Smolt Facility on May 11, 2023.