

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/3/2024
 Inspection Period: 7/28/2024 thru 8/3/2024



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
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All JDA fishways are inspected twice per day during fish passage season, Mar. 1 - Nov. 30.
 Additional and frequent monitoring, of the PLC displays in SMF Fisheries Office, as necessary.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 14	Temperature: 70.2 F Secchi: 6.0 Ft.
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NORTH FISHWAY

Exit Differential	0	≤ 0.5'		
Exit Control Weirs	0	High Setting		
Count Station Differential	0	≤ 0.3'		
Weir Crest Depth (DS Gauge)	0	Per FPP	"Salmon Mode" on 7/15/24 (water depth over weirs switched from 1.3' ± 0.1' to 1.0' ± 0.1')	
Entrance Differential	0	1.0' - 2.0'	Avg. (Ft.)	1.6

SOUTH FISHWAY

Exit Differential	0	≤ 0.5'		
Exit Control Weirs	0	Mid Setting		
Count Station Differential	0	≤ 0.3'		
Weir Crest Depth (US Gauge)	0	Per FPP	"Salmon Mode" on 7/15/24 (water depth over weirs switched from 1.3' ± 0.1' to 1.0' ± 0.1')	
South Entrance Differential	0	1.0' - 2.0'	Avg. (Ft.)	1.1
Entrance Weir SE1	0	Depth (≥ 8')	Avg. (Ft.)	8.1
Collection Channel Velocity	0	1.5' - 4.0' FPS	Avg. (Ft.)	1.88 <i>(2 FPS is optimal)</i>
N. Entrance PH (Bay 19) Differential	0	1.0' - 2.0'	Avg. (Ft.)	1.3
Entrance Weir NE1	0	Depth (≥ 8')	Avg. (Ft.)	8.7
Entrance Weir NE2	0	Depth (≥ 8')	Avg. (Ft.)	8.7

JUVENILE PASSAGE

Forebay/Bypass Conduit Differential	0	4.0' - 5.0'	Avg. (Ft.)	4.7
Submersible Traveling Screens	0	Per FPP	next inspection 07/22-07/25	
Turbine Trashrack Drawdown	0	<1.5'		
Vert. Barrier Screen Drawdown	0	<1.2'		
Spill Volume	0	Per FPP	Avg. (kcfs)	35.4
Spill Pattern	0	Per FPP	Avg. (%)	27.9
Turbine Unit Priority	0	Per FPP		
Turbine 1% Efficiency	0	Per FPP		

Fisheries Related Operations

Smolt Monitoring Operations (SMF):

The 2024 SMF sampling season started April 1st for condition monitoring only.

High water temperature protocol went into effect on 7/16 (Monday and Thursday sampling) and returns to normal sampling when daily water temperatures drop below <69.5°F. All samples will run from approximately 0700-1300 or until the target of 100 fish of the predominant species is reached.

Adult Ladder Operations:

NFL is operating in criteria.

SFL FOG's removed. Operating 2 SFL turbines @ reduced RPMs (SFT-1 or 2: 55 RPMs and SFT-3: 60 RPMs).

Switched to "Salmon Mode" on 7/15/24

Project Operations:

Late Summer spill started 8/1/24 (TSW's deployed and spillbay-2 running for attraction flow - See FPP for more details).

Current outages: MU2: (ETR: 9/19/24), MU3 (ETR: Unknown), MU7 (ETR: 10/1/25), MU10 (ETR: 1/16/25), MU 12 (ETR: 08/06/24), MU14 (ETR: 04/30/26).

Spillbay Outages: #1-missing brake/motor (ETR: Unknown), #6 and #10-operate in manual/local mode only (Estimated Repair: Unknown).

Weekly Average Tailwater TDG: 104.7

Maintenance:

NFL AWS pump #4 is OOS, with an unknwn RTS date (see 21JDA02).

NFL AWS pump #2 has a failed RTD sensor that keeps it from reading an accurate temperature on the lower bearing (occured 4/22/23). Therefore, there is no overheat fail safe and it is being run as a last on first off pump (the pump will need to be unstacked to repair the sensor). The repair date is unknown.

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Slight decrease in pelican foraging (~109/inspection from 111), gulls were unchanged (~1/inspection from 1), no foraging grebes or cormorants.

There are ~182 pelicans hanging around Preacher's Island.

10 of 125 avian lines are down

Avian Hazing finished for the year: Lethal take season total @ JDA: 46-California Gulls, 1-Ring-billed gull, and 1- Double Crested Cormorant

Research:

Four Peaks started ladder counts on 4/1/24 (ends 10/31/24).

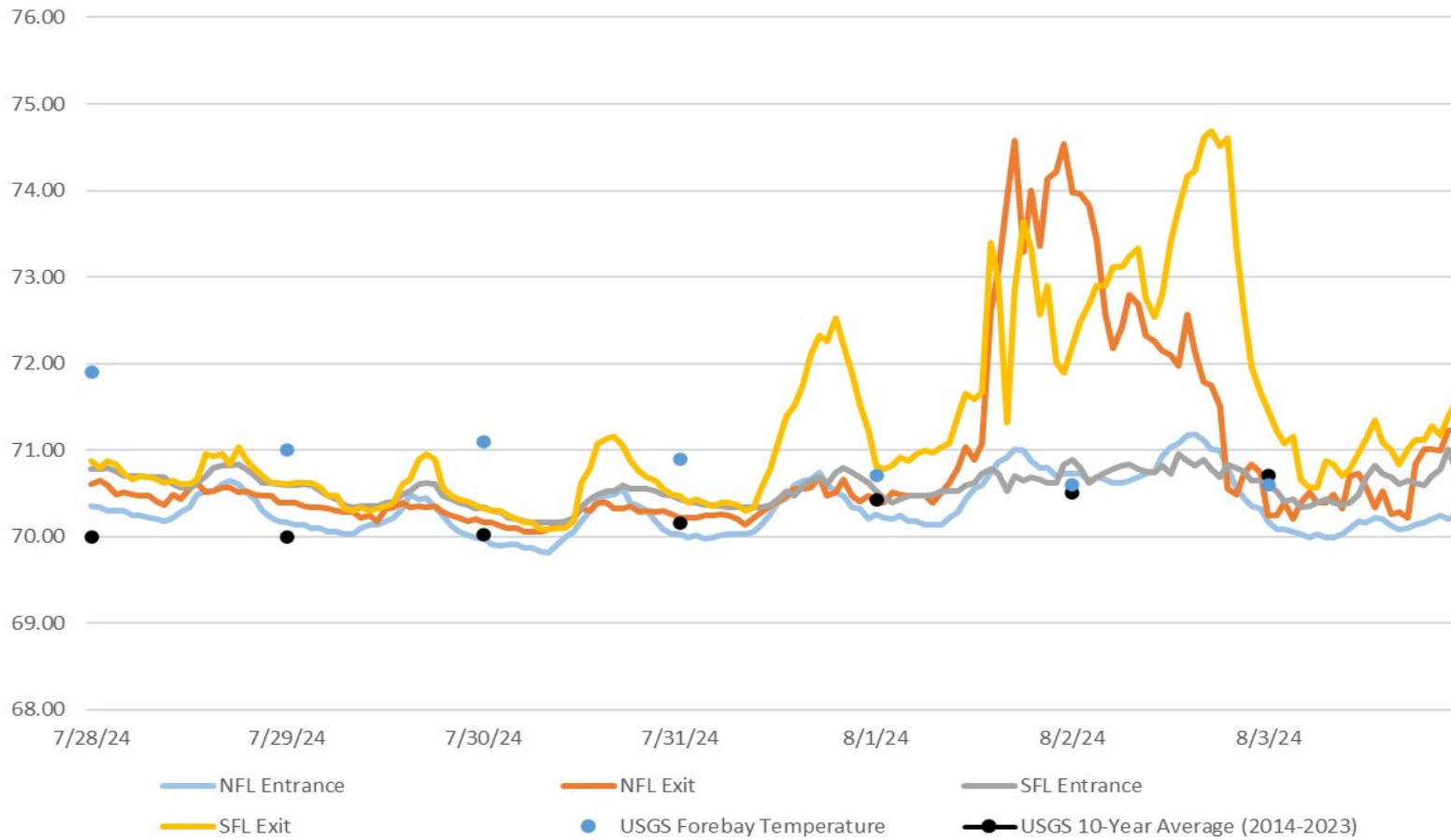
PNNL juvenile lamprey passage behavior and survival study is ongoing.

USDA bird hazing season ended on 7/31/24.

WDFW dam angling started fishing on 5/1/24.

CRITFC started collecting lamprey for translocation on 6/5/24

JDA Ladder and Forebay Water Temperatures (7/28/24 - 8/3/24)



JDA Collection Channel Velocity

FPP Criteria: 1.5–4.0 feet per second (2 fps optimum)

Date	Measurement Location	Speed (ft/sec)	SFL Turbine RPMs (1,2,3)	Bay 19 TW (ft)
7/29/2024	Unit 4	1.92	55,0,60	159.5
7/29/2024	Unit 12	1.81	55,0,60	159.5
7/31/2024	Unit 4	1.89	55,0,60	159.0
7/31/2024	Unit 12	1.85	55,0,60	159.0
8/2/2024	Unit 4	1.89	55,0,60	159.5
8/2/2024	Unit 12	1.93	55,0,60	159.5

Average Weekly Velocity (ft/sec)	1.88
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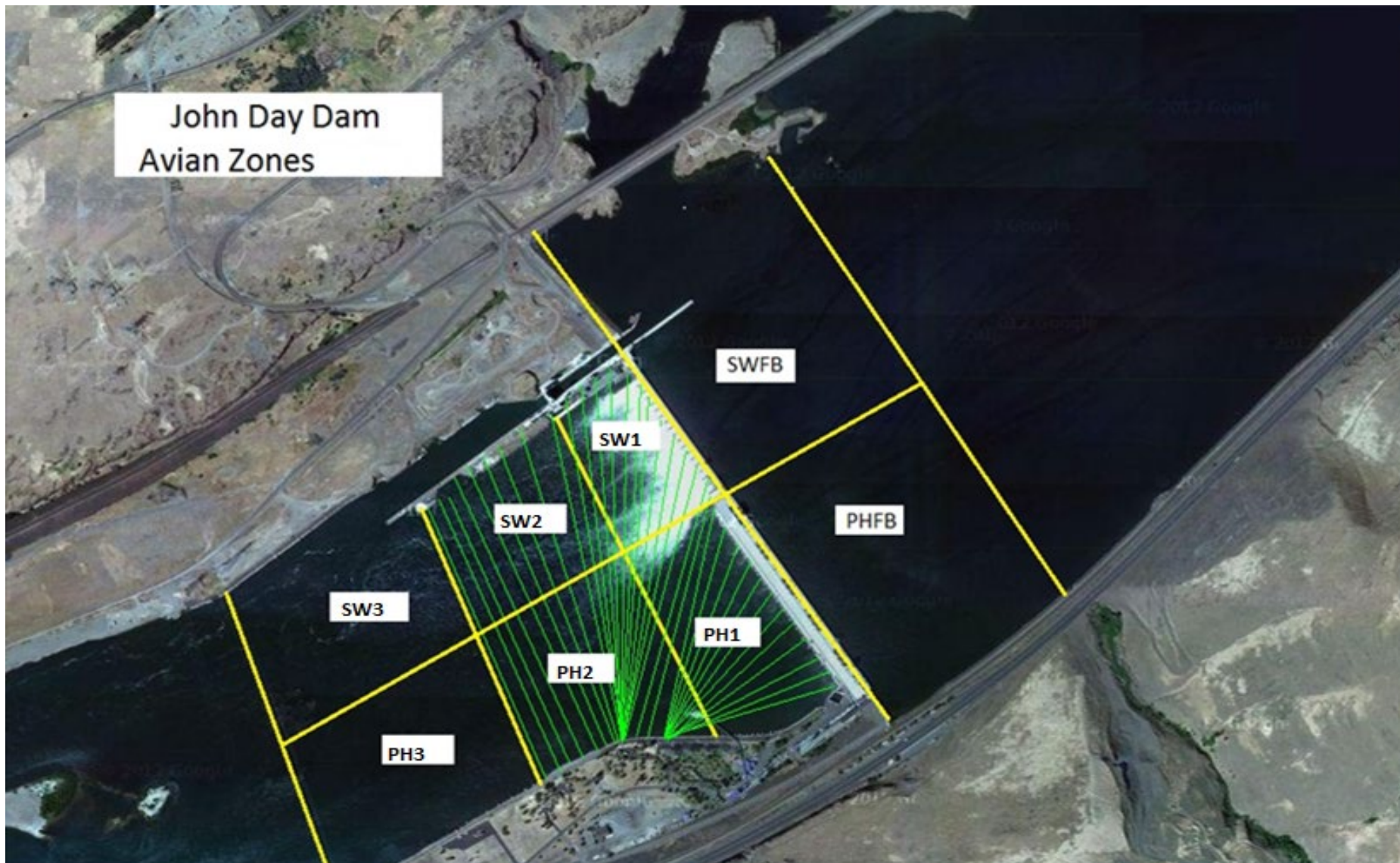
JOHN DAY WEEKLY AVERAGES

	South Fish Ladder					NFL	JBS	Spill		
	SE1 (Ft)	S.Ent (Ft)	NE1 (Ft)	NE2 (Ft)	Bay19 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Spill Vol. (kcfs)	Spill (%)	# Spillbays
Sunday	8.0	1.0	8.5	8.5	1.3	1.6	4.8	53.6	37.0	18
Sunday	8.1	1.0	8.9	8.9	1.4	1.6	4.8	52.9	34.6	19
Monday	8.1	1.0	8.3	8.3	1.3	1.6	4.8	40.3	35.1	14
Monday	8.1	1.0	9.2	9.1	1.4	1.6	4.8	60.2	34.7	19
Tuesday	8.3	1.0	8.5	8.5	1.3	1.6	4.9	40.2	34.8	14
Tuesday	8.0	1.0	8.3	8.3	1.4	1.6	4.7	40.2	34.9	14
Wednesday	8.0	1.0	8.0	8.0	1.4	1.6	4.6	31.8	35.7	9
Wednesday	8.0	1.0	8.3	8.3	1.3	1.4	4.6	49.0	37.3	18
Thursday	8.0	1.0	8.6	8.6	1.2	1.5	4.6	21.2	17.3	3
Thursday	8.3	1.1	10.1	10.0	1.2	1.4	4.6	21.2	12.8	3
Friday	8.0	1.0	8.3	8.3	1.3	1.7	4.5	21.2	25.8	3
Friday	8.3	1.0	9.6	9.5	1.4	1.4	4.5	21.2	14.7	3
Saturday	8.0	1.0	8.0	8.0	1.2	1.8	4.6	21.2	23.6	3
Saturday	8.3	1.7	9.6	9.6	1.5	1.4	4.6	21.2	11.6	3
AVG:	8.1	1.1	8.7	8.7	1.3	1.6	4.7	35.4	27.9	10.2

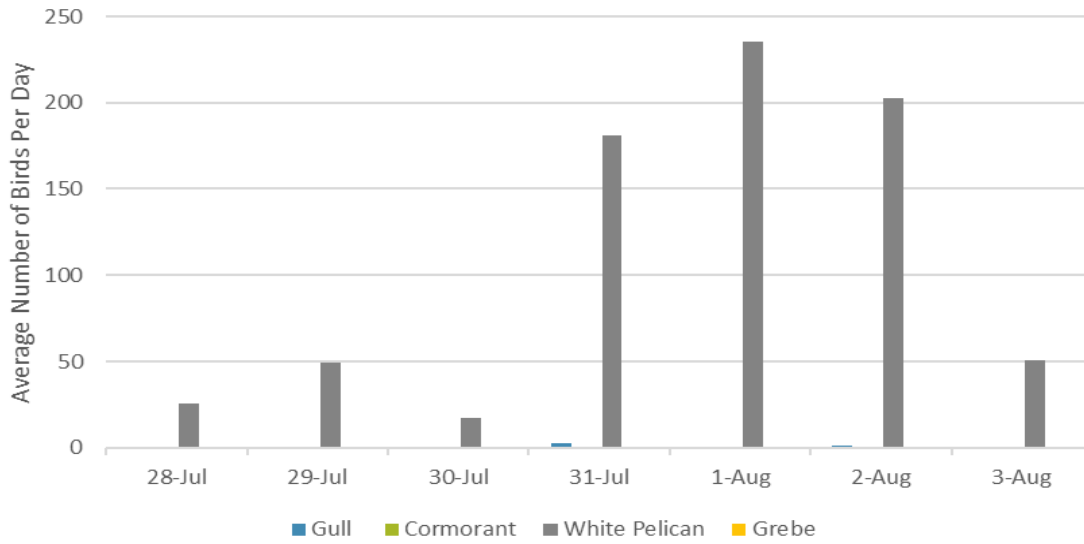
	*River Temp (°F)	Secchi (Ft)	Notes
Sunday	70.4	6.0	
Monday	70.2	6.0	
Tuesday	69.9	6.0	
Wednesday	70.0	6.0	
Thursday	70.3	6.0	
Friday	70.7	6.0	
Saturday	70.0	6.0	
AVG	70.2	6.0	

*Note: River temperatures are the 'average' taken at the time of inspection and are not a true daily average temperature

John Day Dam
Avian Zones



Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

