

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/7/2021

Inspection Period: 8/1/2021 thru 8/7/2021



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
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All JD 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:	73.0 F
						Secchi:	6.0 Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	High setting	High setting is normal				
Count station differential	0	≤ 0.3'					
Entrance differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
SOUTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	Mid setting	Mid setting is normal				
Count station differential	0	≤ 0.3'					
Weir crest depth (US gauge)	0	1.0' ± 0.1'					
South entrance differential	0	1.0' - 2.0'	AVG (Ft.)	1.3			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.4			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.59			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.4			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.7			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	Next Visual Inspection 8/23 - 8/26				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	AVG (kcfs)	44.5	Avg %	34.5	
Spill pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

Fisheries Related Operations

Smolt Monitoring Operations:

High temperature sampling protocols went into effect on 7/8/21 due to water temperatures exceeding 70°F. Smolt Monitoring Facility is currently conducting condition sampling on Monday and Thursday each week until daily average water temperatures drop below 70°F.

Adult Ladder Operations:

North and South fish ladders are operating within criteria. Entered shad mode on 6/3/21. Returned ladders to salmon mode on 7/20/21.

Project Operations:

Current outages: MU7, MU8, MU9-12 (Line 3 BPA MOD work) MU11, MU12, MU13, MU16. Summer Spill started on June 16.

Tailwater Average Weekly TDG: 115.4

Maintenance:

JD North Fishway's pump 4 has been pulled for maintenance (RTS to be determined). Spillbay #10 will be operated manually until further notice.

Calibration - All gauges within the 0.3' criteria. Spillbay #3 failed on 6/5/21 at 0503, the motor for spill gate #3 will need to be replaced.

Bird Data:

Small number of cormorants have returned mainly roosting on PHFB towers. Gull numbers increasing slightly. Pelican numbers starting to decrease on Preacher's Island. Few grebes in PHFB. (see 'Bird Count' tab for details). USDA Hazing ended 7/31/21.

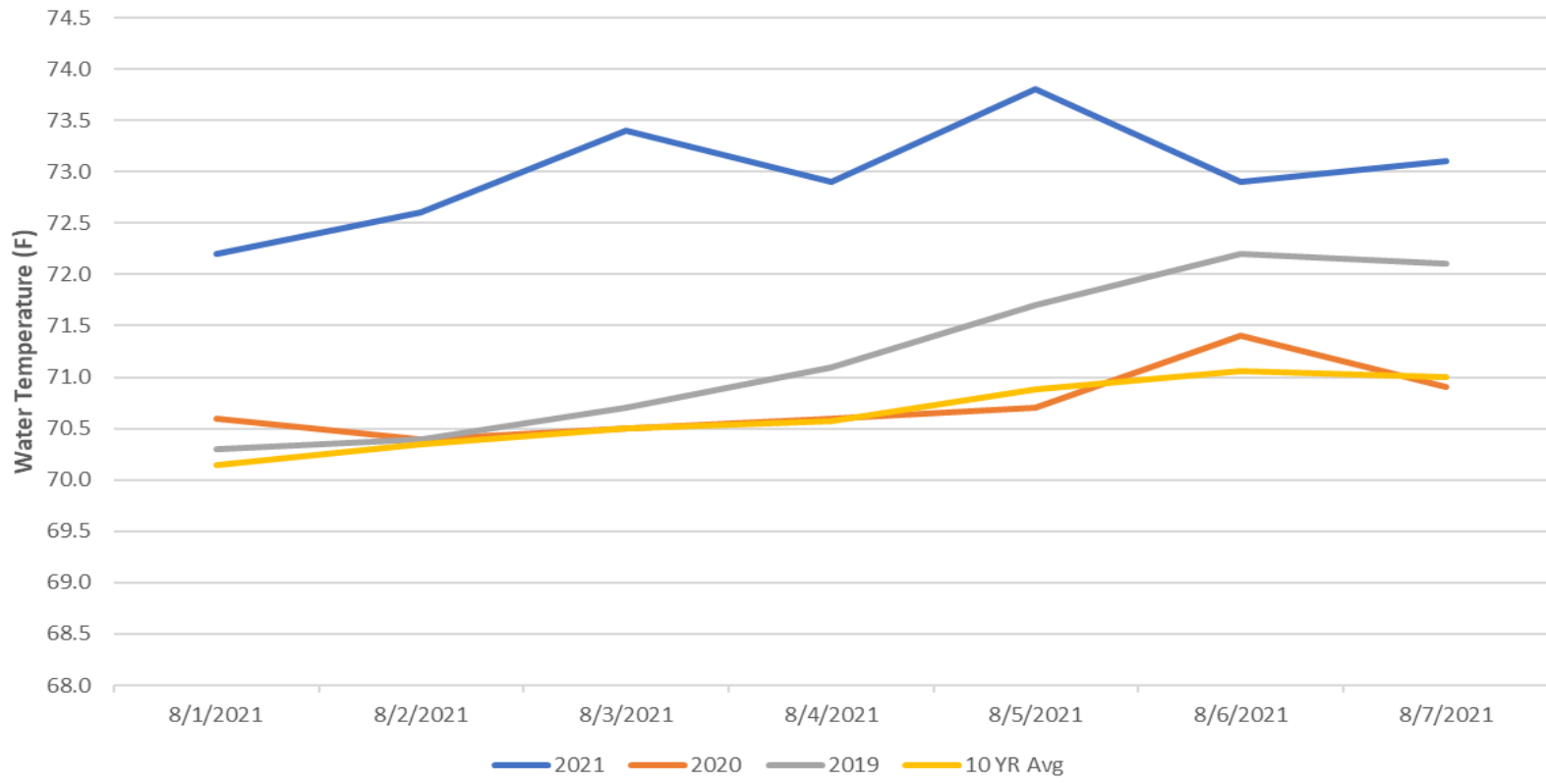
1 of 125 avian lines down, will need to be replaced

Pelicans on Preacher's Island: averaged 154 per day

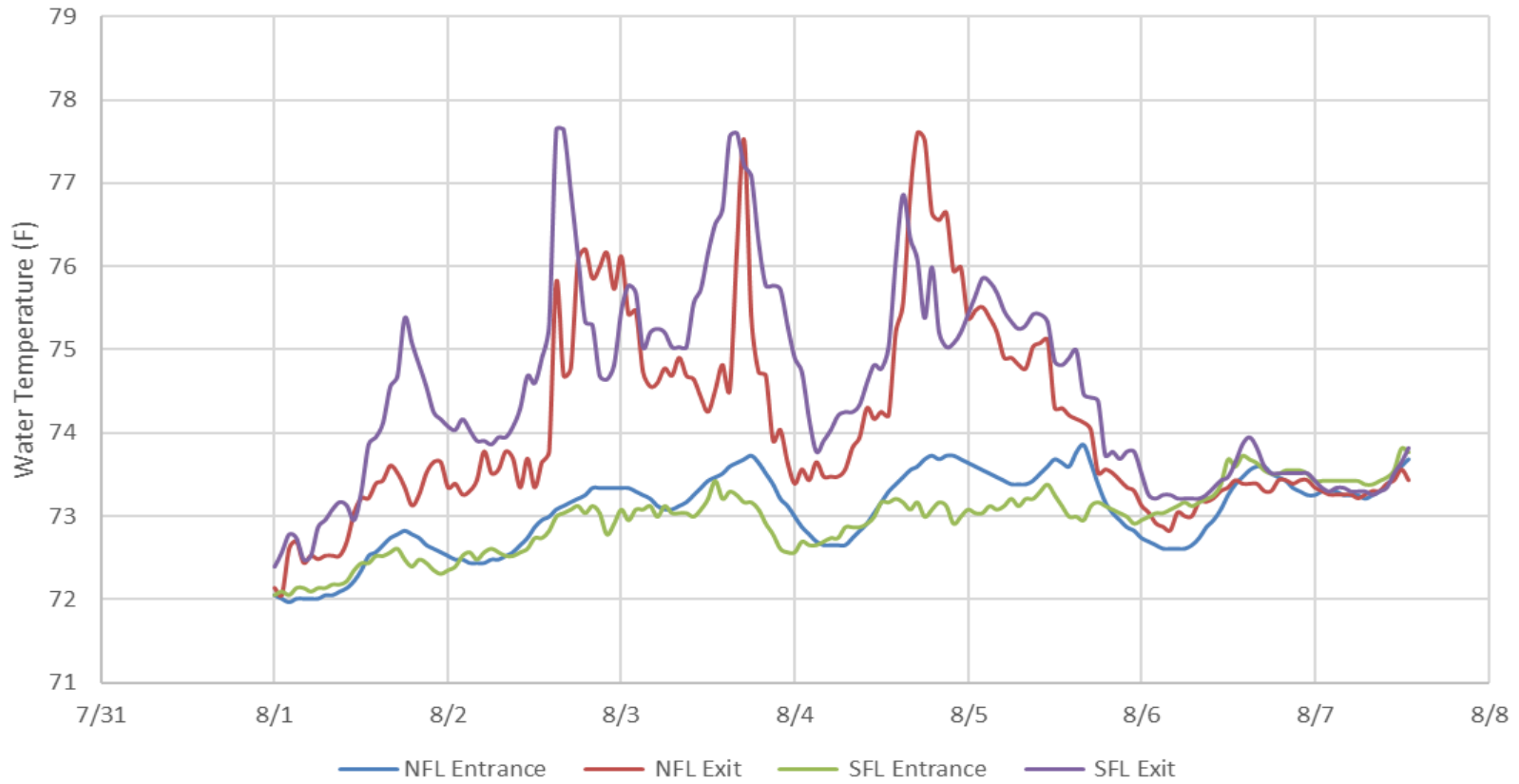
Research:

PSMFC Juvenile lamprey genetic work continues.

John Day Dam Water Temperatures (F)



JDA Ladder Temperatures (8/1 - 8/7)



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)
8/3/2021	Unit 4	2.69	0,68,68	160.1
8/3/2021	Unit 12	2.58	0,68,68	160.1
8/6/2021	Unit 4	2.50	0,68,68	160.4
8/6/2021	Unit 12	2.67	0,68,68	160.4
8/7/2021	Unit 4	2.49	0,68,68	160.0
8/7/2021	Unit 12	2.62	0,68,68	160.0

Average Weekly Velocity (ft/sec)	2.59
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JOHN DAY WEEKLY AVERAGES

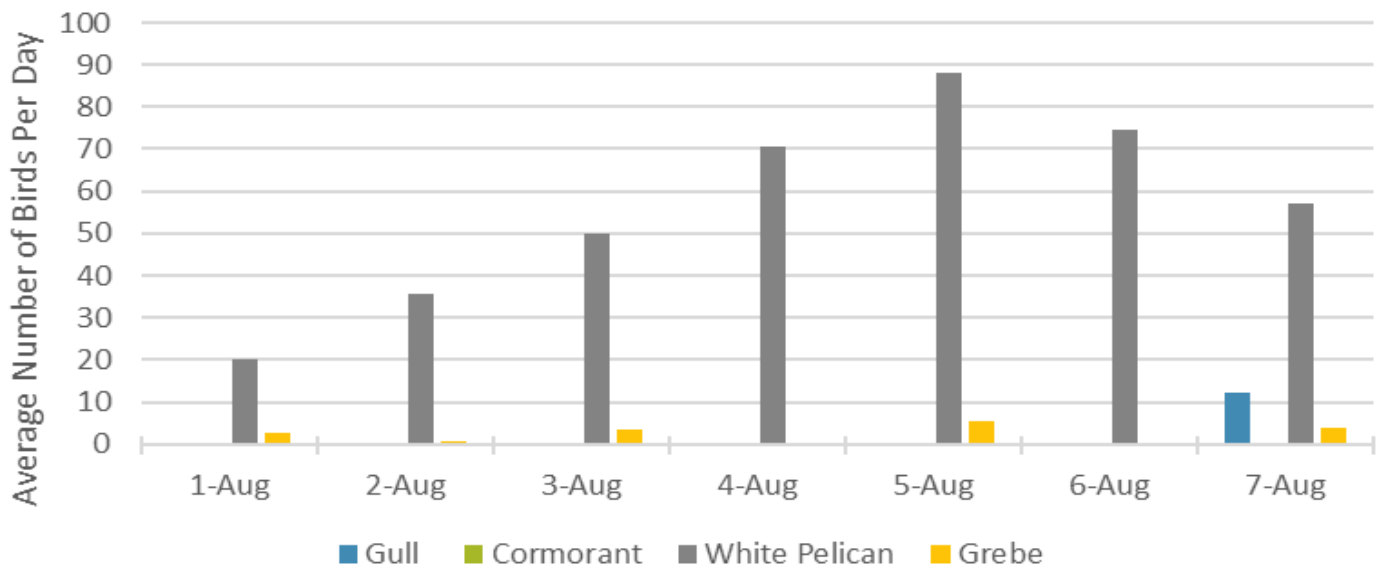
	NE1 (Ft)	NE2 (Ft)	S.Ent (Ft)	SE1 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Bay19 (Ft)	Spill Vol. (kcfs)	Spill %	# Spillbays
Sunday	9.1	9.6	1.1	9.6	1.5	4.6	1.3	37.0	35.5	12
Sunday	9.2	9.7	1.2	9.7	1.5	4.6	1.4	37.0	34.0	12
Monday	9.0	9.5	1.4	9.6	1.5	4.6	1.6	35.0	34.5	11
Monday	10.0	10.5	1.0	10.7	1.4	4.6	1.3	56.0	35.0	18
Tuesday	9.3	9.8	1.4	9.5	1.5	4.5	1.5	41.1	34.4	14
Tuesday	9.7	10.2	1.3	9.9	1.5	4.6	1.7	60.6	34.3	18
Wednesday	9.2	9.7	1.2	10.0	1.5	4.5	1.5	38.1	29.1	13
Wednesday	10.4	10.9	1.0	10.4	1.6	4.6	1.4	61.0	34.0	18
Thursday	9.4	8.4	1.4	8.0	1.6	4.6	1.4	38.0	34.0	12
Thursday	9.6	9.7	1.3	8.9	1.5	4.6	1.5	50.0	36.0	17
Friday	9.6	9.7	1.2	9.0	1.4	4.7	1.7	45.1	34.7	16
Friday	9.4	9.5	1.4	8.7	1.4	4.5	1.6	45.1	34.5	16
Saturday	9.2	9.3	1.3	8.6	1.5	4.5	1.8	42.0	37.1	15
Saturday	9.0	9.1	1.4	8.4	1.5	4.5	1.8	37.0	35.4	12
AVG:	9.4	9.7	1.3	9.4	1.5	4.6	1.5	44.5	34.5	14.6

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	72.2	6.0	N/A	310
Monday	72.6	6.0	3	171
Tuesday	73.4	6.0	N/A	150
Wednesday	72.9	6.0	N/A	125
Thursday	73.8	6.0	9	120
Friday	72.9	6.0	N/A	100
Saturday	73.1	6.0	N/A	100
AVG	73.0	6.0	6	154

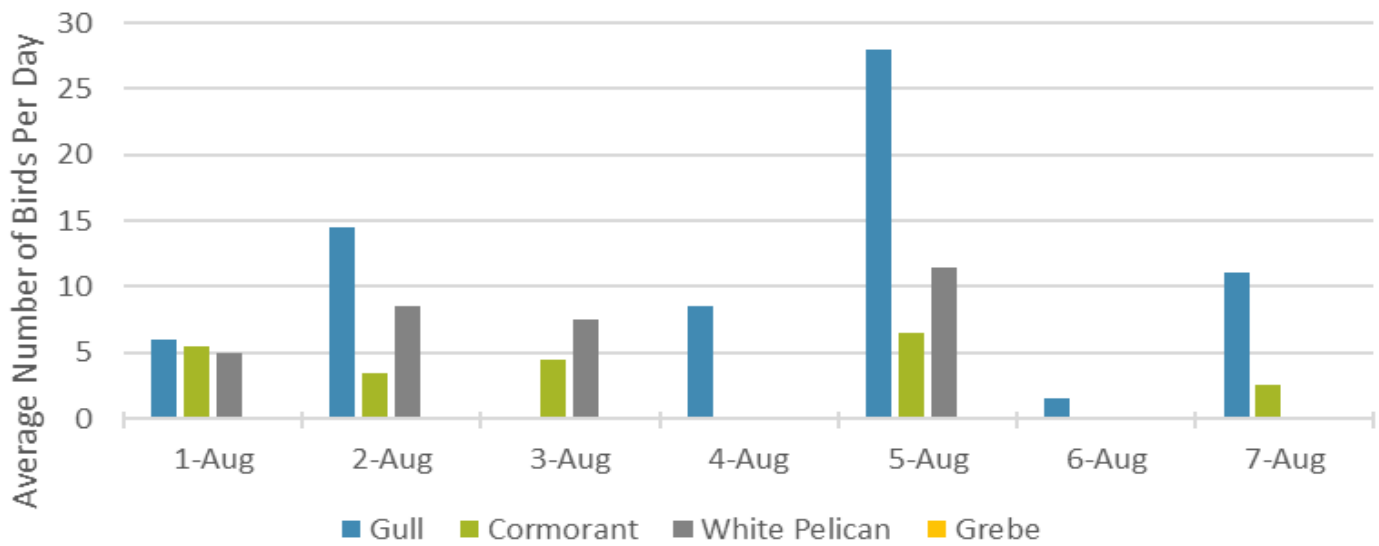
John Day Dam
Avian Zones



Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds





White Sturgeon spotted while inspecting the diffuser grating in the North Fish Ladder.